



Africa Health Agenda International Conference 2019

BOOK OF ABSTRACTS

Theme: **2030 Now: Multi-sectoral Action to Achieve Universal Health Coverage in Africa**

Subthemes: **Access | Quality | Financing | Accountability**

Location: **Kigali Convention Centre, Kigali, Rwanda**

Date: **5 - 7 March, 2019**



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WORD FROM THE CO-CHAIRS

Welcome to the Africa Health Agenda International Conference 2019 (Africa Health 2019), which takes place at the Kigali Convention Centre in Kigali, Rwanda, from 5-7 March 2019. This conference is co-hosted by Amref Health Africa and Rwanda's Ministry of Health, and builds on the successes of the 2nd Africa Health Agenda International Conference, which was held from 7-9 March 2017 at the Radisson Blu Hotel in Nairobi, Kenya.

The theme of Africa Health 2019 conference is "2030 Now: Multi-sectoral Action to Achieve Universal Health Coverage in Africa" and the four subthemes are Access, Quality, Financing and Accountability. The conference will be a key opportunity to map a pathway from commitment to action on UHC, with the aim that by 2030, everyone in Africa has access to essential, quality health care, regardless of their ability to pay. The timing of the conference is especially momentous as it serves as a milestone in the run-up to the UN General Assembly High-Level Meeting on Universal Health Coverage (UHC) in September 2019.

The conference will spotlight Africa's greatest health challenges, discuss how the continent can accelerate progress toward UHC and build momentum among diverse stakeholders. Africa Health 2019 will serve as a go-to, knowledge-sharing platform to arrive at home-grown solutions on how new research, innovation and political commitments can solve those challenges and advance UHC in Africa. As suggested by the theme, the conference will place multi-sector partnerships at the centre stage. The achievement of UHC in Africa by 2030 is contingent on active engagement of governments, civil society, the private sector, multilateral and bilateral partners, and many others.

The three-day event will feature diverse settings to encourage active engagement among the participants, including plenaries, symposia sessions, partner-led events, interactive workshops, scientific tracks, an innovation marketplace, and a Youth Pre-conference. Over 1,000 delegates will convene in Kigali, including policymakers, civil society, technical experts, innovators, the private sector, thought leaders, scientists, researchers and youth leaders.

Africa Health 2019 will highlight the key role played by scientific research and its contributions to the achievement of the UHC. It will also allow researchers, scholars and industry leaders to assess and understand what universal actions are needed to improve the state of health in Africa and strengthen health systems across the continent. Through the conference's four scientific tracks – aligned with the four sub-themes of access, quality, financing and accountability for UHC – leading researchers will share the

latest findings and discuss gaps.

A new feature at Africa Health 2019, the Innovation Marketplace, will infuse the conference with engaging and disruptive displays, talks and exhibits that draw attention to emerging health innovations, including those pioneered and patented by African innovators. The Marketplace will allow conference participants to learn about and engage with the latest innovations and technologies that are revolutionizing health outcomes and advancing UHC across Africa.

Each country faces unique challenges to attaining UHC. Research inputs and evidence are critical to address major questions facing governments as they design and implement UHC country plans and strategies, tailored to meet the needs of their citizens. Africa Health 2019 brings together health development professionals and researchers to share and evaluate evidence that can contribute to generating home-grown solutions to the health problems facing the African continent and the attainment of UHC. The conference will be a platform for conversations on health to happen on African soil and led by African voices, driven by data and innovation.

An energizing Youth Pre-conference will precede Africa Health 2019, running from 3-4 March 2019. Over 300 Pan-Africa young leaders, professionals, aspiring researchers and future leaders are expected to attend. Reinforcing the slogan – Nothing About Us, Without Us – the 2019 Youth Pre-conference will be an opportunity to put into action the priorities identified by nearly 250 youth from 15 African countries during the 2017 Youth Pre-conference. A youth hack-a-thon will challenge participants to find innovative solutions to pressing health issues facing the continent, and particularly young people.

On behalf of the Africa Health 2019 Organising Committee, we are pleased to bring you opportunities to learn, share, discuss, collaborate and inspire, to help shape Africa's health agenda.



Hon Dr Diane Gashumba

Minister of Health | Republic of Rwanda

Co-Chair, Africa Health 2019 Organising Committee



Dr Githinji Gitahi

Group CEO | Amref Health Africa

Co-Chair, Africa Health 2019 Organising Committee

OVERVIEW

Africa is at a critical moment in the pursuit of Universal Health Coverage (UHC). Most countries recognize the importance of “health for all,” both as a means of achieving the Sustainable Development Goals (SDGs) and because it is the right thing to do. However, political will and a clear strategic vision are just the first step. Now, leaders across Africa must turn this commitment into action if Africa is to achieve its UHC targets.

The Africa Health Agenda International Conference (AHAIC) 2019 Africa Health Agenda International Conference (AHAIC) is one of the largest health-related conferences in Africa, and provides a premiere platform to debate the future of health on the continent and accelerate home-grown solutions to diverse health challenges. Co-hosted by Amref Health Africa and the Ministry of Health of Rwanda, the three-day meeting is expected to draw more than 1,500 participants from across Africa and the global community – including scientists, practitioners and advocates as well as political leaders, the private sector and media.

Discussions will be anchored by the four pillars of the conference – access, quality, financing and accountability. Throughout the conference, the cross-cutting subjects of gender, multi-sector partnerships, technology and country leadership is woven into sessions to give nuance to conversations. The conference also spotlights trailblazers and innovators making an impact and inspiring change across the continent.

In advance of the main conference, Amref Health Africa will host a Youth Pre-Conference from 3-4 March 2019 at the Kigali Convention Center. This Pan-African youth convening is an opportunity to bring together over 300 youth leaders, professionals and future leaders from across the continent to network and be at the center of critical discussions on the future of UHC in Africa. Reinforcing the slogan – Nothing About Us, Without Us – the 2019 Youth Pre-Conference is an opportunity to take stock of progress on priorities identified by nearly 250 youth from 15 African countries during the 2017 Youth Pre-Conference.

OBJECTIVES OF CONFERENCE

1. To bring together diverse stakeholders and address how Africa can accelerate progress toward Universal Health Coverage (UHC).
2. To exchange scientific knowledge and best practices on how new research, innovation and political commitments can solve Africa's health challenges and advance UHC.
3. To identify and discuss gaps and challenges in implementing UHC in Africa, as well as to identify and share home-grown solutions to address these challenges.

HOSTING ORGANISATIONS



Republic of Rwanda
Ministry of Health



ORGANISING COMMITTEE

Dr Diane Gashumba	Minister of Health, Republic of Rwanda	AHAIC 2019 Co-chair
Dr Githinji Gitahi	Group CEO, Amref Health Africa	AHAIC 2019 Co-chair
Mette Kjaer Kinoti	Chief Programmes Officer, Amref Health Africa	Member
Dr Meshack Ndirangu	Country Director, Amref Health Africa	Member
Desta Dakew	Head of Fundraising, Amref Health Africa	Member
Emma Gituku	Conference Cordinator, AHAIC 2019	Member
Dr Joachim Osur	Director of Regional Offices and Field Offices, Amref Health Africa	Member
Dr Josephat Nyagero	Technical Lead for Research, Amref Health Africa	Member
Jennifer Foulds	Ag Communications Director Global, Amref Health Africa	Member
Elizabeth Ntonjira	Senior Manager, Corporate Comms, Africa, Amref Health Africa	Member
Evalin Karijo	Director, Youth Advocacy, Chair, Youth Pre-Conference Organising Committee	Member
Rose Mungai	Finance Manager, AHAIC 2019	Member
Gloria Nyanja	Co-chair, Youth Pre-Conference Organising Committee	Member

SCIENTIFIC COMMITTEE

Dr Josephat Nyagero	Technical Lead - Research, Amref Health Africa Headquarters	Chair
Prof Joachim Osur	Director of Regional Projects and Field Offices, Amref Health Africa	Vice chair
Prof Stella Anyangwe	Global Health Expert/Epidemiologist, Pretoria, South Africa	Member
Prof Fred Wabwire-Mangen	Programme Director, Health Services Research at Makerere University School of Public Health, Uganda	Member
Roberta Rughetti	Head of Programmes, Amref Health Africa in Italy	Member
Dr Pauline Bakibinga	Associate Research Scientist, African Population and Health Research Center, Kenya	Member
Dr Jane Carter	Director, Clinical & Laboratory Services, Amref Health Africa	Member
Prof Kato Njunwa	Director of Research, Innovation and Postgraduate Studies, University of Rwanda	Member
Dr George Kimathi	Director, Institute of Capacity Development, Amref Health Africa	Member
Dr Shiphrah Kuria	Regional Programme Coordinator, Amref Health Africa (HQ)	Member
Dr Lilian Mbau	NCD Programme Specialist, Amref Health Africa in Kenya	Member
Mr Johnstone Kuya	National Coordinator, SRHR Alliance Kenya	Member
Ms Evalin K Karijo	Youth Advocacy Director, Amref Health Africa	Member
Prof Jean Bosco Gahutu	Director of Research and Innovation at the College of Medicine and Health Sciences, University of Rwanda	Member
Dr Moses Alobo	Programme Manager, Grand Challenges Africa, African Academy of Sciences	Member
Dr Christopher Were	Medical Director East Africa at GlaxoSmithKline	Member
Emma Gituku	AHAIC Coordinator, Amref Health Africa	Member
Jessicar Claris	Research Assistant, Amref Health Africa	Member
Mercy Mutua	Research Assistant, Amref Health Africa	Member

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Walter Kibet	Amref Health Africa	Kenya
Wanjiku Kamau	Advocacy Accelerator	Kenya
Zaddock Okeno	Amref Health Africa	Kenya

SESSION CODING FOR AHAIC 2019

Week Day

TU	-	Tuesday
WE	-	Wednesday
TH	-	Thursday

Session Type

ABO	-	Abstract Oral
LO	-	Lightning Oral
PE	-	Poster Exhibition
PS	-	Plenary

Session Order: **1, 2, 3...**

Speaker Order: **01, 02, 03...**

DESCRIPTION OF PLENARY SESSIONS

Tuesday, 5 March 2019

8:10 - 8:30am

Pre-Plenary I: **Amref International University (AMIU) Special Topics Lecture & Podcast (Auditorium)**

Master of Ceremony: **Hellen Nomugisha, President, African Youth and Adolescent Network on Population and Development (AFYAN)**

Introduction of Speaker & Series: **Prof Marion Mutugi, Vice Chancellor, Amref International University**

Pre-Plenary lecture on Health and Mortality; Speaker: **Prof Philip Cotton, Vice Chancellor, University of Rwanda**

8:30 - 1:30pm

Plenary I: **Strengthening Primary Health Care Systems to Deliver Universal Health Coverage in Africa (Auditorium)**

Session Overview: Strong primary health care (PHC) systems are the frontline of most health services and, as such, are at the core of delivering UHC. In October 2018, the world came together to renew a global commitment to primary health care to achieve UHC and the SDGs at the Astana Conference on Primary Health Care. The Declaration of Astana, has renewed political commitment from not only Governments, but also NGOs, academia, global health and development organizations and will inform the UN General Assembly high-level meeting on UHC in September 2019. AHAIC 2019 will take forth conversations initiated at the Astana conference to narrow in on the future of PHC systems in Africa. Looking to draw lessons from African countries that are leading the charge in modelling high-performing PHC systems, this session will highlight strategies for designing systems that are affordable, accessible and sustainable.

Session moderator: Dr Giorgio Cometto, Coordinator, Human Resources for Health Policies & Standards, World Health Organization

Fireside Chat (15 minutes)

Moderator: **Michel Sidibe, Executive Director, UNAIDS**

Speaker: **Dr Jean Kagubare, Deputy Director of Global Primary Health Care, Bill & Melinda Gates Foundation**

Panel Discussion and Q&A (65 minutes)

Hon Sarah Opendi, Minister of State for Health (General Duties) Uganda

Rogério Ribeiro, Senior Vice President, Global Health Unit, GlaxoSmithKline (GSK)

	<p>Farid Fezoua, President & CEO, GE Healthcare Africa</p> <p>Dr Patrick Ndimubanzi, Minister of State for Primary Health Care, Rwanda</p> <p>Dr Sanele Madela, Founder & CEO, Expectra 868 Health Solutions, South Africa</p> <p>Wilson Musoni, Community Health Worker, Rwanda</p>
<p>10:10 - 11:00am</p>	<p>Plenary II: Opening Ceremony (Auditorium)</p> <p>Masters of Ceremony: Magnifique Irakoze, Regional Coordinator for Africa, International Federation of Medical Students Associations, Rwanda; Hellen Nomugisha, President, African Youth and Adolescent Network on Population and Development (AFIYAN)</p> <p>Welcome Remarks (5 minutes): Dr Jean Pierre Nyemazi, Permanent Secretary, Ministry of Health Rwanda</p> <p>Welcome Address (5 minutes): Dr Githinji Gitahi, Group CEO, Amref Health Africa</p> <p>Remarks</p> <p>Video Message from Dr Tedros Adhanom Ghebreyesus, Director General, World Health Organization</p> <p>Keynote: Guest of Honour (5 minutes): Hon Dr Diane Gashumba, Minister of Health, Rwanda</p> <p>Recognition of UHC Presidential Champion</p> <p>Cross-generational Discussion Panel (15 minutes): 60% of Africa's population is 24 years or below. Africa's youth thus play a central role in the social, economic and political advancement of the region. This cross-generational discussion will focus on the outcomes of the Youth Pre-Conference and next steps from the youth communiqué.</p> <p>Moderator: Youth representative from the Youth Pre-Conference</p> <p>Hon Dr Diane Gashumba, Minister of Health, Rwanda</p> <p>Dr Ian Askew, Director, Department of Reproductive Health and Research, WHO</p> <p>Dr Githinji Gitahi, Group CEO, Amref Health Africa</p>

11:45 - 12:30am

Inter-Ministerial Panel (Auditorium)

At the sixth Tokyo International Conference on African Development (TICAD-VI) Summit held in Nairobi, Kenya in August 2016, African Heads of State signed the Universal Health Coverage in Africa: A Framework for Action. The framework represents a powerful commitment to multi-sector collaboration to achieve UHC. However, leaders across Africa must turn this commitment into action. The Ministerial Panel will bring together Ministers of Health from countries across Africa to take stock of progress since TICAD VI and map a vision for what it will take to achieve UHC targets in their countries.

Moderator: **Dr Jeanine Condo, Director General for the Rwanda Biomedical Centre; Michel Sidibe, Executive Director, UNAIDS**

Presentation of UHC Ministerial Ambassador Award to Minister of Health Ethiopia

Panelists:

Hon Dr Diane Gashumba, Minister of Health, Rwanda

Hon Dr Obadiah Moyo, Ministry of Health, Zimbabwe

Hon Norwu G Howard, Deputy Minister, Ministry of Health, Liberia

Hon Sarah Opendi, Minister of State, Health, Uganda

Hon Dr Rashid Abdi Aman, Chief Administrative Secretary, Ministry of Health, Kenya

Wednesday, 6 March 2019

8:10 - 8:30am

Pre-Plenary III: **Amref International University (AMIU) Special Topics Lecture Series (MH1+2+3)**

Master of Ceremony for the Day: **Christelle Kwizera**

Moderator: **Nathaniel Otoo, Senior Fellow, Results for Development**

Speaker: **Prof Marion Mutugi, Vice-Chancellor, Amref International University**

8:30 - 10:00am

Plenary III: **Financing Universal Health Coverage in Africa (MH1+2+3)**

Session Overview: More than 2 billion people live in countries that spend less than \$25 per capita on health – less than a third of what is needed for countries to provide basic, life-saving health services for their citizens. In addition, across the globe, as many as 100 million people a year are pushed into poverty due to healthcare-related payments. Close to two decades ago, African Heads of State committed to allocating 15% of total public expenditure to the health sector, launching the Abuja Declaration. Today, only a handful of countries in the region have reached or surpassed the target. Domestic resource mobilization, resource use and financial protection are therefore central to any discussion on UHC in Africa. In November 2018, countries and partners came together in Oslo to invest in sustainable financing for health at the Global Financing Facility replenishment meeting. Countries such as Burkina Faso, Côte d'Ivoire and Nigeria committed to increasing domestic allocation for health to at least 15% and to investing in women, children and adolescents. This session will explore successful strategies for domestic resource mobilization, partnerships that are sustaining and transforming the funding landscape in Africa, and new financing strategies that are paving the way for financial autonomy in Africa.

Financial Accountability Fireside Chat (15 minutes)

Dr Angela Nyambura Gichaga, CEO, Financing Alliance for Health

Ellen Van De Poel, Health Economist, Global Financing Facility, The World Bank Group

Session Moderator: **Nathaniel Otoo, Executive Director, Strategic Purchasing Africa Resource Center (SPARC)**

Panel Discussion and Q&A (75 minutes)

Dr Solange Hakiba, Deputy, Director General, Rwanda Social Security Board

Hon Dr Robert Kuganab Lem, Member of Parliament, Ghana

	<p>Marijke Wijnroks, Chief of Staff, The Global Fund</p> <p>Monique Dolfing, CEO, PharmAccess</p> <p>John Kinuthia, Lead Research Analyst, International Budget Partnership Kenya</p>
<p>1:30 – 3:00pm</p>	<p>Plenary IV: Access to Care: Reaching the Last Mile (MH1+2+3)</p> <p>Session Overview: The Sustainable Development Goals set an ambitious target to “leave no one behind”. Yet low-income, migrant and marginalized groups continue to face disproportionate challenges accessing quality, affordable health care. Achieving health for all in Africa means paying close attention to the needs of these key populations. This session will explore innovative solutions to increasing access to medicines and services, health worker empowerment and key interventions that are allowing countries to respond meaningfully and effectively to the health care needs of the hardest-to-reach, most vulnerable populations in Africa.</p> <p>Session Moderator: Raj Kumar, Founder and Editor-in-Chief, Devex</p> <p>Political Accountability Fireside Chat (15 minutes)</p> <p>Moderator: Raj Kumar, Founder and Editor-in-Chief, Devex</p> <p>Speaker: Hon Eugene Mussolini, Member of Parliament, Rwanda; Senait Fiseha Alemu, Health Extension Worker, Ethiopia</p> <p>Panel Discussion and Q&A (75 minutes)</p> <p>Magnus Conteh, Executive Director, Last Mile Health</p> <p>Prof Francis Omaswa, Executive Director, African Centre for Global Health and Social Transformation (ACHEST)</p> <p>Ronald de Jong, Executive President, Philips</p> <p>Barbara Profeta, Regional Health Advisor Horn of Africa for the International Cooperation, Embassy of Switzerland, Nairobi</p> <p>Francois Karangwa Xavier, Executive Director, UPHLS Organisation, Kigali</p> <p>Margaret Kilonzo, Community Health Worker, Kenya</p>

8:10 - 8:30am

Pre-Plenary V: **Amref International University (AMIU) Special Topics Lecture & Podcast (MHI+2+3)**

Master of Ceremony: **Elie Mandela**

Pre-plenary lecture on Ethical considerations in UHC; quality and distributive justice

Speaker: **Dr Stephen Ombok Muhudhia, Consultant Paediatrician, Kenyatta National Hospital, Nairobi**

8:30 - 10:00am

Plenary V: **Paradigm Shift: Focusing on Quality of Care (45 minutes)**

Increasing access to health services alone is not enough to improve health outcomes – access must go together with a deliberate focus to improve quality of care. A recent study published by the Lancet found that most deaths in low- and middle-income countries (LMICs) could be prevented if patients had access to good quality care. The study estimated that 5 million people in LMICs die every year due to preventable conditions, significantly more than the 3.6 million who die from not having access to care, which has been the traditional focus in global health. This TED-style session series will focus on what it takes to sustainably improve quality of care, including deliberate political prioritization of the issue and a commitment to strengthening overall health systems, governance and scale up of health information systems. Each speaker will have 10 minutes to deliver a presentation, and there will be a 15-minute Q&A segment following the presentations.

Moderator: **Dr Waruguru Wanjau, Medical Officer & Public Health Consultant**

Keynote Speaker (10 Minutes); Dr Abdirisak Dalmar, Co-Founder & Executive Chairman, Caafinet Somalia Ltd, Mogadishu, Somalia

TED-style Speakers; **Dr Stephen Mutwiwa, Country Director Jhpiego Rwanda; Dr Charles Akhimien, Co-founder, MOBicure, Nigeria**

Panel Discussion

Pr Serigne Guerye Guere, President, West African College of Surgeons, Senegal

Dr Wangari Frasia Karua, General Manager, Amref Enterprises Limited

Dr Mariam Dahir, Health Systems Strengthening Advisor & Medical Practitioner, Somaliland

Dr Ian Askew, Director, Department of Reproductive Health and Research, WHO

Accelerating Progress toward UHC: Leveraging Innovation & Technology (45 minutes)

Innovation is transforming health care diagnostics, treatment, delivery, data collection, and user experience in Africa. Yet, less than 50% of Africans have access to modern health care facilities, one in ten medicines and medical devices in the continent are substandard or falsified, and many countries are struggling to meet the needs of their population due to acute health worker shortages. This session will showcase demonstrable innovations in health care systems, data and delivery that are leapfrogging progress towards UHC across the continent. Each innovator will have 10 minutes to demonstrate their innovation, and there will be a 15-minute Q&A segment following the presentations.

Moderator: **Dr Priya Baasubramaniam, Senior Public Health Scientist & Director UHC-RNE Initiative, Public Health Foundation of India**

Speakers

Claire Morris, International Programmes Director, Babylon Health

Benjamin Nortey, CEO, Metro Institute of Innovation and Technology, Ghana

Simon Berry, Co-founder and CEO, ColaLife

Israel Bimpe, Head, National Implementation in Rwanda, Zipline Inc

David Fleming, M.D, PATH, Vice President of Global Health Programs

1:30 - 2:45pm

Plenary VI: Strengthening Multi-Sector Partnerships to Achieve Universal Health Coverage in Africa (Auditorium)

Session Overview: Cognisant of the fact that health is not a silo, there is greater consensus among diverse stakeholders on the need to transition away from a fragmented approach to health care towards a more integrated, big-picture vision, which will require increased collaboration across sectors and disciplines. Even beyond health, bringing together diverse sectors such as education, agriculture and environment will ensure a holistic approach to improving the determinants of health and strengthening health systems. This session will take a 360-degree approach to map the unique role that different sectors need to play to advance UHC in Africa.

Session Moderator: **Dr Amit N Thakker, Chairman, Africa Health Business**

TED-Style Talk (15 minutes): **Dr Kibachio Joseph Mwangi, Head, Division of Non-Communicable Diseases, Ministry of Health, Kenya**

	<p>Panel Discussion and Q&A (75 minutes)</p> <p>Richard Pendame, Regional Director for Africa, Nutrition International</p> <p>Thomas B Cueni, Director General, International Federation of Pharmaceutical Manufacturers & Associations (IPFMA)</p> <p>Anuradha Gupta, Deputy CEO, Gavi, The Vaccine Alliance</p> <p>Erogbogbo Temitayo, Director of Advocacy, MSD for Mothers</p>
<p>3:15 - 5:00pm</p>	<p>Plenary VII: Closing Ceremony (Auditorium) Auditorium</p> <p>MC: Dr Ange Thaina</p> <p>Women in Global Health: International Women’s Day Celebration (45 minutes)</p> <p>The last day of AHAIC 2019 falls on the eve of International Women’s Day. This commemoration ceremony will feature a panel discussion on gender equity in UHC and an award ceremony recognising the contributions of women leaders who have dedicated their lives to advocating for better health in Africa. The session will also serve as the official launch of the Women in Global Health African Regional Hub, to carry forward conversations initiated at the conference and accelerate action to advance health and wellbeing of girls and women in Africa.</p> <p>Moderator: H E Toyin Saraki, Founder and President, Wellbeing Foundation Africa</p> <p>Panel Discussion and Q&A</p> <p>Katja Iversen, CEO, Women Deliver</p> <p>Amina Jama Mahmoud, Founder, Women in Global Health Somalia</p> <p>Nice Nailantei, Project Officer & Global End FGM/C Ambassador, Amref Health Africa</p> <p>Prof Miriam Were, Vice Chancellor, Moi University, Kenya</p> <p>MOU Signing Ceremony Women in Global Health Africa Chapter (5 minutes)</p> <p>Roopa Dhatt, MD MPA, Executive Director & co-Founder, Women in Global Health</p> <p>Dr Wangari Frasia Karua, General Manager, Amref Enterprises Limited, Kenya</p> <p>Recognition to Women in Global Health, from AHAIC</p>

Presentation of the AHAIC 2019 conference communiqué

Welcoming: **H.E. Toyin Saraki – welcomes Guest of Honor, Hon Marie-Chantal Rwakazina, Mayor, City of Kigali**

Closing Keynote Address (10 minutes): **H E Marie-Chantal Rwakazina, Mayor, City of Kigali**

SCIENTIFIC TRACKS, PARTNER WORKSHOPS AND RESEARCH SKILLS LAB/ WORKSHOP

Tuesday, 5 March 2019	
11:00 - 11:45am	<p>Break/ Networking/ Posters/ Press Conference</p> <p>FOYER 1A The Exchange Exhibition Area</p> <p>FOYER 1B Innovation Marketplace</p> <p>FOYER 1C Dear Minister Campaign & Youth Lounge</p> <p>CONCOURSE Poster Presentations & J&J Lounge</p> <p>AD11 Press conference</p>
12:30 - 1:30pm	<p>Lunch/ Networking/ Poster Presentations</p> <p>FOYER 1A The Exchange Exhibition Area</p> <p>FOYER 1B Innovation Marketplace</p> <p>FOYER 1C Dear Minister Campaign & Youth Lounge</p> <p>CONCOURSE Poster Presentations & J&J Lounge</p>
12:30 - 2:00pm	<p>Luncheon: Leveraging Public-Private Partnerships to Transform Health in FCAS (Auditorium Club)</p> <p>Swiss Development Agency / FCAS</p> <p>This closed luncheon will bring together about 30 high-level government officials and leaders from pharmaceutical and medical companies for an open dialogue on ways that the public and the private sectors can meaningfully collaborate to improve access to medicines, vaccines and medical technologies in African countries</p>
1:30 - 3:00pm	<p>Scientific Tracks/ Partner Workshops</p> <p>Abstract presentations and partner-led break-out sessions to take a deep-dive into conversations initiated at the main plenaries.</p> <p>Track 1.1a: Addressing cultural, social and age barriers to accessing health services in Africa (Venue: AD10)</p> <p>Track 2.1: Enhancing monitoring and models for quality assurance to ensure quality of health services (Venue: AD12)</p>

	<p>Track 3.1: Expanding financial protection, including for vulnerable populations, by strengthening and scaling innovative insurance models (Venue: AD1)</p> <p>Track 2.6: Achieving patient-centred quality by strengthening non-clinical contributors to quality of health services, including compassion, cleanliness and timeliness (Venue: MH3)</p> <p>Track 1.2: Leveraging technology and innovative models of service delivery to accelerate access (Venue: AD11)</p> <p>Lightning Orals Session 1</p> <p>Title: Addressing barriers to Universal Health Coverage (Venue: AD4)</p> <p>Partner-led workshops</p> <p>MH1 Innovative Partnership for Universal and Sustainable Health care (i-PUSH): Leveraging mobile technology and health innovations to scale up financial protection and quality of care; Organised by: i-PUSH, Amref Health Africa & PharmAccess</p> <p>MH2 Innovation in Action to Achieve Health for All; Organised by: PATH</p> <p>MH4 Workshop I: Validity in Research</p> <p>Mezzanine floor: What government and civil society can do to prevent and reduce the burden of NCDs for their citizens; Integration of NCD care into primary health care; Organised by: Partners in Health, Rwanda</p>
<p>3:00 - 3:45pm</p>	<p>Break/ Networking/ Poster Presentations</p> <p>Foyer 1A The Exchange</p> <p>Foyer 1B Innovation Marketplace</p> <p>Foyer 1C Dear Minister Campaign & Youth Lounge</p> <p>CONCOURSE Posters Presentations</p>
<p>3:45 - 5:15pm</p>	<p>Scientific Tracks/Partner Workshops/Research Workshop I</p> <p>Abstract presentation and partner-led break-out sessions to take a deep-dive into conversations initiated at the main plenaries.</p> <p>Track 1.1b: Addressing cultural, social and age barriers to accessing health services in Africa (Venue: AD10)</p>

<p>3:45 - 5:15pm</p>	<p>Track 2.2: Strengthening human resources for health, and health leadership management and governance, to improve capacity for delivering quality health services (Venue: AD1)</p> <p>Track 3.2: Strengthening public-private partnerships and bringing in new stakeholders to design innovative health financing models (Venue: MH3)</p> <p>Track 3.6: Leveraging technology and mobile penetration to scale up financial protection for populations (Venue: AD11)</p> <p>Lightning Orals Session 2</p> <p>Title: eHealth solutions for Universal Health Coverage (Venue: AD4)</p> <p>Lightning Orals Session 3</p> <p>Title: Understanding diseases distribution for Universal Health Coverage programming (Venue: AD12)</p> <p>Partner-led workshops:</p> <p>MH1 Symposium I: Achieving UHC by Strengthening Sexual and Reproductive Health and Rights; Organised by: SIDA / Regional SRHR Team, Embassy of Sweden, Lusaka, UNFPA East and Southern Africa Regional Office (Time: 3:00PM – 5:00PM)</p> <p>MH2 Workshop III How to Write Scientific Abstracts</p> <p>MH4 Symposium II: The Power of Partnerships: Driving Sustainable Cancer Care Solutions in Cities; Organised by: City Cancer Challenge Foundation</p> <p>Mezzanine floor: Revolutionize Primary Care Through Public Private Cooperation; Organised by: Amref Health Africa, Royal Philips, FMO Dutch Development Bank and Makueni County</p>
<p>5:30 - 7:00pm</p>	<p>Satellite Sessions/ Reception</p> <p>Partner-led sessions</p> <p>AD1 Leaving No One Behind: The Journey Starts Now; Organised by Africa Population Health Research Center (APHRC)</p> <p>AD4 Amref Health Africa WASH VISION CLOSED; Organised by Amref Health Africa Regional & Amref Flying Doctors Netherlands</p>

AD10 Turning a Global Momentum into Local Action: The Role of Community Health Workers in Achieving Universal Health Coverage; **Organised by Amref NL, CHW Cocktail & Launch of WHO Guidelines for Community Health Workers**

AD11 Launch of Youth-Led Accountability; **Organised by UNFPA**

AD12 Integrating Cancer into UHC Agenda in Africa, Cancer Symposium; **Organised by Roche East Africa**

MH1 MSD for Mothers

MH3 High level TB Symposium: Translating commitments made at the United Nations High Level Meeting on Tuberculosis (UNHLM) into country actions; **Organised by Stop TB Partnership, The Global Fund and Amref Health Africa**

MH4 UHC: Leaving No One Behind. How Far Are We?; **Organised by International Planned Parenthood Federation Africa Region (IPPFAR)**

Mezzanine Floor EASE Model for Community Based Social Insurance Programme (CBSHIP): An Efficient Approach to Achieving UHC2030; **Organised by EHA Nigeria**

Wednesday, 6 March 2019

7:30-8:10am

Satellite Sessions

Partner-led sessions

AD1 PATH / Amref Senior Management Team Breakfast | **CLOSED**

AD4 Deloitte / FP 2020 Core Conveners | **CLOSED**

AD6 Enabling Continuous Professional Development for Mid-Level Health Workers in Africa; Organised by: Institute of Capacity Development, **Amref Health Africa** | **CLOSED**

MH4 Role of Parliamentarians in Advancing UHC (MPs Session) | **CLOSED**; Organised by: European Parliamentary Forum on Population & Development (EPF), African Parliamentary Forum on Population & Development (FPA) (08:30 – 10:00)

10:00 - 10:45am

Break/ Networking/ Posters

Foyer 1A **The Exchange**

Foyer 1B **Innovation Marketplace**

Pitching Session: NCD Alliance Session 1

	<p>Foyer IC Dear Minister Campaign & Youth Lounge</p> <p>CONCOURSE Posters Presentations and J&J Lounge</p>
10:45 - 12:15pm	<p>Scientific Tracks/ Partner Workshops</p> <p>Abstract presentation and partner-led break-out sessions to take a deep-dive into conversations initiated at the main plenaries.</p> <p>Track 1.3 Strengthening and redesigning primary health care centres to deliver integrated, people-centred health services (Venue: AD10)</p> <p>Track 2.3 Smart data: Use of health statistics and information systems to inform quality assurance (Venue: AD12)</p> <p>Track 3.3 Accountability and aligning public financing in health services delivery systems (Venue: AD1)</p> <p>Track 4.3 Looking back: Tracking progress against health commitments made by African leaders (Venue: RBH Swimming Pool Room)</p> <p>Track 1.4a Prioritising initiatives that reach vulnerable, hard-to-reach and migrant populations with essential health services (Venue: AD11)</p>
	<p>Lightning Oral Session 4</p> <p>Title: Enhancing quality assurance for universal health coverage (Venue: Auditorium Club)</p> <p>Partner-led Sessions</p> <p>AD3 Democratizing Healthcare Through Innovative Primary Healthcare Delivery Models; Organised by: GE Healthcare</p> <p>AD4 UHC Responses to the Urgent Challenge of Multimorbidity and NCDs; Organised by: NCD Alliance</p> <p>AD7 Private Investment in Community and Primary Care; Organised by: Amref Health Africa-Netherlands, Royal Philips and FMO Dutch Development Bank</p> <p>MH1 SwitchPoint Exchange: Health Data, activism, art, communication and unusual collaborations; Organised by: IntraHealth International/Switchpoint</p> <p>MH2 Workshop III Writing Good Abstracts for Conferences</p> <p>MH3 Nutrition as a Critical Component of Universal Health Coverage; Organised by: Nutrition International</p>

	<p>MH4 Driving UHC in Asia and Africa through Community led Innovation; Organised by: Amref Health Enterprises Limited / Takeda / PHFI (10:00AM – 12:15PM)</p> <p>RBH Lot 2 Improving Public Health Management for Action (IMPACT) Program Fellow Symposium; Organised by US CDC</p> <p>Mezzanine Floor Boardroom : IFC Bilateral Meetings CLOSED</p> <p>Mezzanine Floor: How can Organisations Leverage Technology to Enhance Access and Collective Accountability? Organised by BroadReach</p> <p>RBH Lot 2 Improving Public Health Management for Action (IMPACT) Program Fellow Symposium – Session 1</p>
<p>12:15 – 1:30pm</p>	<p>Lunch/ Networking/ Posters</p> <p>Foyer IA The Exchange</p> <p>Foyer IA Innovation Marketplace</p> <p>Pitching Session: NCD Alliance Session 2</p> <p>Foyer IC Dear Minister Campaign and Youth Lounge</p> <p>CONCOURSE Posters Presentations and J&J Lounge</p> <p>Auditorium Club 1 Why UHC Matters for Business: High Level Private Sector Consultation</p> <p>Private Sector Consultation/ Working Lunch, Organised by Amref Health Africa, UN Foundation, UHC 2030, WEF, UN Global Compact</p>
<p>3:00 – 3:45pm</p>	<p>Break/ Networking/ Posters</p> <p>Foyer IA The Exchange</p> <p>Foyer IB Innovation Marketplace</p> <p>Foyer IC Dear Minister Campaign and Youth Lounge</p> <p>CONCOURSE Posters Presentations and J&J Lounge</p>

3:45 - 5:15pm

Scientific Tracks/Partner Workshops/Research Workshop II

Abstract presentation and partner-led break-out sessions to take a deep-dive into conversations initiated at the main plenaries.

Track 1.4b: **Prioritising initiatives that reach vulnerable, hard-to-reach and migrant populations with essential health services** (Venue: AD10)

Track 2.4: **Leveraging cutting-edge technology and innovation to enhance quality of care in health facilities** (Venue: AD12)

Track 3.4: **Planning ahead: Addressing the ever-growing health needs of populations and costs of health services** (Venue: AD3)

Track 4.4: **Social accountability and the “unheard” voice of citizens: Activating communities to demand for the right to health** (Venue: RBH Swimming Pool Room)

Track 1.6: **Ensuring access to appropriate, safe elective and emergency surgery at all health facility levels** (Venue: AD11)

Lightning Oral Session 5

Title: **Financing, social accountability and private sector engagement for Universal Health Coverage** (Venue: MH3)

Partner-led Sessions

AD1 Workshop IV Moving Research from Publishing to Policy

AD4 Unlocking the Potential Universal Health Coverage as a Domestic Resource base to meet Child and Family Health Funding Gaps in Nigeria; **Organised by The development Research and Project Centre PACFaH@Scale Project (dRPC –PAS) Nigeria**

MH1 UNAIDS Civil Society Consultation in Preparation for the High Level Meeting (HLM) on Universal Health Coverage (UHC); **Organised by UHC2030 / CSEM**

MH2 Catalyzing African Health Tech Solutions in Africa: What’s Needed to Generate and Scale Up Innovations?; **Organised by The Elsevier Foundation and Amref Health Africa**

MH4 Advancing Primary Health Care: African Leadership and Accountability on the Road to UHC; **Organised by Primary Health Care Performance Initiative (PHPCI) and The Access Challenge: One by One: Target 2030 Campaign**

	<p>The Square Town Halls</p> <p>RBH Lot 2 Impact Medical Education and Clinical Practice with the Power of ClinicalKey – An Elsevier platform that turns information into knowledge; Organised by The Elsevier Health</p> <p>Mezzanine Floor Improving Public Health Management for Action (IMPACT) Program Fellow Symposium – Session 2; Organised by US CDC</p>
5:30 – 7:00pm	<p>Satellite Sessions/ Reception</p> <p>AD1 Achieving Universal Health Coverage: Learning from Kenyan Counties; Organised by Amref Health Africa, Kenya</p> <p>AD3 The Role of Technology in Primary Healthcare: Opportunities, Challenges and Limitations; Organised by Pathways to Prosperity Commission, Blavatnik School of Government, University of Oxford University CLOSED</p> <p>AD4 Country CSO Brainstorming Session; Organised by World Bank Group & Others</p> <p>AD7 Access Accelerated Meeting Young African Scholars CLOSED</p> <p>AD11 Emergency Care as an Essential Delivery Mechanism Within Universal Health Coverage Organised by Seed Global Health</p> <p>MH2 Social Accountability for UHC; Organised by Amref Health Africa and PATH</p> <p>MH4 Achieving Malaria Elimination to reach Universal Health Coverage; Organised by Vestergaard & RBM</p> <p>Mezzanine Floor Committing to Community Centred UHC: Advocacy in Action CLOSED; Organised by Last Mile Health, Communities at the Heart of UHC Campaign</p> <p>Mezzanine Boardroom IFC Bilateral Meeting CLOSED</p> <p>RBH Lot 2 “Health Technology: A Solution to Leapfrog to Universal Health Coverage”; Organised by Babyl Rwanda</p>
Thursday, 7 March 2019	
7:30 – 8:10am	<p>Satellite Sessions Partner-led sessions</p> <p>AD4 A Discussion on Family Planning Post -2020; Organised by Deloitte, on behalf of FP2020 Core Conveners CLOSED</p> <p>AD10 Harnessing the Role of Health Workers in Achieving UHC; Organised by Amref Health Africa – Institute of Capacity Development, GSK, Save the Children and Care International (07:00am – 08:00am)</p>

	<p>RBH: Lot 2 MPs Consultation / Briefing on Parliamentarians UHC Handbook: Organised by European Parliamentary Forum on Population & Development (EPF), African Parliamentary Forum on Population & Development (FPA) (09:30AM – 11:30AM)</p>
10:00 - 10:45am	<p>Break/ Networking/ Posters</p> <p>Foyer IA The Exchange</p> <p>Foyer IA Innovation Marketplace</p> <p>Foyer IC Dear Minister Campaign and Youth Lounge</p> <p>CONCOURSE Posters Presentations and J&J Lounge</p>
10:45 - 12:15pm	<p>Scientific Tracks/Partner Workshops/Research Workshop III</p> <p>Abstract presentation and partner-led break-out sessions to take a deep-dive into conversations initiated at the main plenaries.</p> <p>Track 1.5: Engaging the private sector and forging meaningful Public-Private Partnerships for accelerated access to health (Venue: AD10)</p> <p>Track 2.5: Ensuring quality of medicines by enhancing pharmacovigilance to curb the spread of counterfeit medicines and medical devices, and antimicrobial resistance (Venue: AD4)</p> <p>Track 3.5: Cost-effective health care: Maximising returns for investment in health care and transitioning from passive to strategic purchasing (Venue: AD1)</p> <p>Track 4.5: Measuring accountability: Leveraging Health Information Systems to enhance and monitor impact (Venue: AD7)</p> <p>Lightning Oral Session 6</p> <p>AD12 Immunization in Fragile and Conflict-Affected States (FCAS) in Africa: From Conflict and fragility to Investing in Health – The Case of Immunization; Organised by Global Health Strategies</p> <p>MHI FCAS: Delivering UHC in Frontier Economies – Multi Sectoral Approaches; Organised by Swiss Development Agency</p>

	<p>MH2 Expanding access to safe, quality medicines to achieve universal health coverage in Africa; Organised by United States Pharmacopeia</p> <p>MH3 #SPARCtheChange: Bridging the Resource Gap for UHC in Africa through Strategic Purchasing; Organised by Results for Development and Amref Health Africa</p> <p>MH4 Client-Centred Primary Health Care, how do we get there?; Organised by Jhpiego</p> <p>Mezzanine Floor How Can Health Systems Engage Communities to Achieve Universal Health Coverage?; Organised by African Population and Health Research Center, as part of the Eastern Africa Health Policy Research Organisation Consortium under the Innovating for Maternal and Child Health in Africa (IMCHA) Initiative</p> <p>Mezzanine Boardroom IFC Bilateral Meeting CLOSED</p> <p>The Square Town Halls (2)</p> <p>Auditorium Club A Story Telling Event by African and International Civil Society Dialogues To Accelerate the UHC Agenda at Local, National, Regional and Global Level; Organised by Health Systems Advocacy Partnership (Amref Health Africa, ACHEST, Health Action International, Wemos and the Dutch Ministry of Foreign Affairs</p> <p>RBH Lot 2 Parliamentarians Briefing on UHC; Organised by: European Parliamentary Forum on Population & Development (EPF), African Parliamentary Forum on Population & Development (FPA) (10:00AM – 12:15PM)</p> <p>RBH Swimming Pool Room Is the dominance of English ; Organised by Elsevier</p>
<p>12:15 - 1:30pm</p>	<p>Lunch/ Networking/ Posters</p> <p>Foyer IA The Exchange</p> <p>Foyer IA Innovation Marketplace</p> <p>Foyer IC Dear Minister Campaign and Youth Lounge</p> <p>CONCOURSE Posters Presentations and J&J Lounge</p> <p>Auditorium Club 1 UN Foundation Private Sector Consultation Working Lunch</p>
<p>2:45 - 3:15pm</p>	<p>Entertainment Break (Auditorium)</p>

DESCRIPTION OF PARTNER SESSIONS

Partner Session 1

Title: Expanding Leadership in Evidence Informed Decision-Making in Africa Bringing together scientists and policy makers through evidence

Description: The African Institute for Development Policy (AFIDEP) and the African Academy of Sciences (AAS) will be launching a two-year project whose aim is to expand leadership in the use of evidence for policy formulation and implementation by African governments. The project will empower AAS's distinguished scholars and affiliates to proactively engage governments to use science and innovation and champion institutionalization of Evidence Informed Decision Making (EIDM) in East and West Africa. The session will bring together beneficiaries of the project attending the conference including AAS scholars and policy makers. Selected conference attendees and media will be invited to participate in setting the stage for conversations and activities on institutionalizing a culture of evidence leadership among African scientists and policymakers.

Organizers: **AFIDEP** | Closed Session



Partner Session 2

Title: Private Investment in Community and Primary Care

Description: There is broad consensus that investment in primary healthcare is the most efficient and effective way to improve health outcomes towards Universal Health Coverage. Traditionally such investments have largely relied on donor funding. As more African countries move into the middle income ranks, donors are pulling out. Governments alone are unable to finance the investments required for large-scale improvement of their community and primary care system. At the same time, impact investors are looking for bankable projects with impact. Linking private investment to strengthening of public healthcare requires new business models. We appreciate your presence to collectively explore investment opportunities in Public Primary Care, with the ultimate goal of achieving Universal Health Coverage and SDG 3-Good health and wellbeing.

Organizers: **Amref Netherlands** | Open Session

Partner Session 3

Title: Putting patient centered care and human dignity at the heart of Universal Health Coverage: the central role of palliative care

Description: Our session will focus on palliative care, a core component of UHC, and an essential health service which uses a person and family centered care model in managing experienced by children and adults with life limiting and life threatening illnesses. This encompasses the physical, psychological, social and spiritual needs and symptoms. Palliative care focuses on peace and dignity for the sick person, the family and care providers and aims at allowing people to live life to the fullest each day and to maintain the highest possible quality of life. African States joined the rest of the world to support the passing of the World Health Assembly (WHA67.19) resolution on palliative care in May 2014 and other global and regional commitments. Although the need for palliative care is rapidly increasing, access to services in Africa remains limited.

At this session, we will review progress being made in Africa, highlight evidence based unmet need, demonstrate the economic and human case for palliative care and strategies for countries to include palliative care and pain relief into their UHC programs.

Organizers: African Palliative Care Association (APCA) | Open Session



Partner Session 4

Title: How can health systems engage communities to achieve universal coverage?

Description: Community health workers (CHWs) facilitate access to health services and contribute to the attainment of the first pillar of universal health coverage. However, questions on how they can be sustainably integrated into the health system persist.

This symposium aims to encourage an evidence-based discourse on this issue so as to redefine health policymaking and programming. This discussion is timely as the role of communities is amplified not only in addressing health emergencies but also identifying local solutions to health challenges. Further, African countries are exploring a policy approach to recognize CHWs as a cadre in human resources for health. However, they face challenges on how to address recruitment, training, motivation, and supervision of CHWs. Through the Innovating for Maternal and Child Health in Africa initiative, researchers are testing innovations that have community components. As a result, they are acquiring new knowledge on how to engage communities in health to achieve universal coverage.

Organizers: African Population and Health Research Center –APHRC | Open Session

Partner Session 5

Title: Leaving no-one behind: the journey to 2030 starts now

Description: Drawing on nearly two decades of work by APHRC among different populations across the continent, this workshop will provide a unique platform for health and environmental scientists, policy makers, among others, to discuss the intersections among maternal and child health; infectious and non- communicable diseases; as well as service capacity and access for more responsive health systems.

The roundtable will be structured in two parts: the first part will include a number of presentations which through an evidence-based approach, will assess the current situation, evaluate recent scientific developments and lessons- learnt; while the second part will focus on discussions with workshop participants on the opportunities and challenges in contemporary systems for health in Africa.

Organizers: African Population and Health Research Center – APHRC | Open session



Partner Session 6

Title: Achieving UHC by Strengthening Sexual and Reproductive Health and Rights

Description: This symposium aims to build greater consensus around a collective health for all movement, inclusive of sexual and reproductive health services and promotive of sexual and reproductive rights. Sexual and reproductive health and rights (SRHR) interventions are health promotive, preventive, cost-effective and highly feasible to incorporate into universal health coverage (UHC) programs. They also are essential services, particularly for women, girls and adolescents, and are necessary to achieve health for all.

Featuring country case study presentations and a panel discussion, this session will focus on how SRHR services are being integrated into UHC policies and programs today; how integrating SRHR in the UHC agenda can support the realization of UHC; and how diverse actors can work together to promote accountability and deliver high-quality, equitable SRHR services as part of UHC policies and programs.

Organizers: Buffet Foundation | Open session



Partner Session 7

Title: The Power of Partnerships: Driving Sustainable Cancer Care Solutions in Cities

Description: Launched by the Union for International Cancer Control (UICC) in 2017, and transitioning into a standalone entity in January 2019, C/Can City Cancer Challenge inspires cities to deliver quality, equitable cancer care for all. By identifying local leaders and empowering them to identify needs and implement solutions, C/Can provides a foundation for lasting change at the city level and shares best practices so that solutions can be scaled nationally, regionally, and globally. C/Can believes in the power of locally-driven, public-private partnerships bringing technical assistance, complementary resources, and unique competencies to cities based on their individual needs. In this session, representatives of the Ministry of Health of Rwanda, City of Kigali, local civil society and private sector will share perspectives on multisectoral collaboration and the recent launch of C/Can in Kigali. Progress and lessons learnt from experience in Kumasi, Ghana, one of C/Can's Key Learning Cities, will also be shared.

Organizers: CCAN | Open session



Partner Session 8

Title: Turning a global momentum into local action: the role of community health workers in achieving universal health coverage

Description: Since the launch of Amref Health Africa's Community Health Worker (CHW) Campaign in 2017, awareness on the pivotal role played by CHWs in ensuring health for all has grown significantly in Africa, and globally. If countries aim to achieve Universal Health Coverage (UHC) by 2030 while leaving no one behind, recognition of the catalyst role that CHWs play on the road toward UHC as well as their need for remuneration and support is critical. Still, the "how" question of recognition and remuneration of CHWs remains challenging to answer, given the various CHWs cadres, supported by different national strategies and policies. The recent launch of WHO guidelines to optimize CHW programmes, together with the revived commitments for primary health care during the Astana Conference in October 2018 and the upcoming UN High-Level Meeting on UHC in September 2019 form the greatest global momentum for CHWs in history. The time is now to translate this global momentum into local action to ensure the greatest benefits for CHWs in Africa and the communities they serve. This session presents a panel with representatives from WHO, African Union, African Ministries of Health, civil society and CHWs. Together they will discuss how best to support CHWs in their work towards achieving UHC.

Organizers: Amref Netherlands | Open session

Partner Session 9

Title: Unlocking the potential Universal Health Coverage as a domestic resource base to meet child and family health funding gaps in Nigeria

Description: Domestic resource mobilization is key principle for sustainable delivery of child and family health services. To ensure sustainable sources of domestic resources, African countries are experimenting with a range of innovative financial instruments. In Nigeria, the Basic Health Care Provision Fund, (BHCPF) is a new innovation for funding priority areas in child and family health within a primary health care under one roof system. To date, funds appropriated under the 2018 and Q1 of the budget for BHCPF have not been released. The BHCPF has not yet been made a Statutory Transfer so there is no guarantee of its continuity. Against this background, the National Health Insurance Scheme constitutes a sustainable source of health financing. Strangled by administrative, legal, political and technical encumbrances coupled with a poor social accountability implementation framework, the NHIS remains and an untapped resource for financing priority issue areas in child and family health.

Organizers: **DPRC** | Open session

Partner Session 10

Title: Impact Medical Education and Clinical Practice with the Power of ClinicalKey – An Elsevier platform that turns information into knowledge

Description: As a global information and analytics business that helps institutions and professional's advance healthcare and improve performance health outcomes Elsevier leads the way in health education innovation. In our workshop we will discuss our digitalized solutions for the delivery of learning solutions in the academic environment and clinical setting.

Organizers: **Elsevier Health** | Open session

Partner Session 11

Title: Catalyzing African Health Tech Solutions in Africa: What's needed to generate and scale innovations?

Description: Despite exciting leapfrog innovations such as mobile phones, the widespread uptake of new health tech solutions in Africa has been hindered by a knowledge and communication gap between entrepreneurs, government and funders. To improve affordable healthcare in Africa, a new ecosystem must be developed to enable dialogue, experimentation, research, and sustainable investing.

This panel will explore viable approaches to scale both Africa-based and global innovations which can be adapted and scaled for the African market. With speakers drawn from the IFC's TechEmerge program, MSF/Epicentre, Amref Health Africa's "Innovate for Life Fund" and the Lancet Global Health, this panel will share best practices to support health tech solutions in Africa.

Organizers: Elsevier Foundation/Amref | Open session



Partner Session 12

Title: Harnessing the role of health workers in achieving UHC

Description: Harnessing the role of health workers in achieving UHC session aims at generating ideas, solutions and opportunities enabling frontline health workers to accelerate progress towards UHC. This is based on the background that, one of the barriers to the attainment of UHC is the global shortage of a well-trained and skilled health workforce.

Globally, the uneven distribution of health workers means that about 1 billion people lack access to healthcare service. Addressing the shortage is therefore paramount. Beyond the numbers, however, a well-trained and motivated health workforce is necessary to build the strong health systems required for UHC. To explore this, the Institute of Capacity Development at Amref Health Africa is convening a satellite session bringing together government, NGO, and corporate sector stakeholders.

Organizers: GSK | Open session



Partner Session 13

Title: Democratizing Healthcare Through Innovative Primary Healthcare Delivery Models

Description: Provide a brief overview of the focus of your session – 150 words max. Please note that the description you provide will be added to the conference website and programme. In October 2018, the global health community and other health stakeholders convened in Astana, Kazakhstan, to mark the 40th anniversary of the signing of the Alma-Ata Declaration. By signing the resulting Astana Declaration on Primary Healthcare, countries vowed to strengthen their primary healthcare systems as an imperative toward achieving universal health coverage (UHC). Forty years after Alma-Ata, "Health for All" is still not a reality.

At least half the world's population still lacks access to quality, essential health services. And even when services are available, economic barriers limit access, leaving families both impoverished and unwell. In Africa, on average, health systems in the region are only able to assure 32% of the potentially possible access to essential services. In Sub-Saharan Africa (SSA), 13.9 million people (1.6% of the regional population) lack financial protection and are pushed into extreme poverty because they have to pay for health expenses and 89 million people (10.3% of the regional population) spend at least 10% of their household budget on health.

Attainment of UHC is impossible without universal access to affordable and quality health services. This panel will explore ways through which innovative primary healthcare delivery models can improve access and therefore support the attainment of "Health for All" by 2030.

Organizers: GE HEALTHCARE | Open session

Partner Session 14

Title: A Story Telling Event by African and International Civil Society: Dialogues to Accelerate the UHC Agenda at Local, National, Regional and Global Level

Description: Creating truly inclusive policy dialogues around health care is a joint responsibility of civil society, government, private sector and the research community. The Health Systems Advocacy (HSA) Partnership, invites you around a "campfire" to share stories about successes and challenges in fostering inclusive dialogues around UHC and SRHR. What role does civil society have in accelerating health agendas at local, national, regional, and global level? And what are effective ways to go about this?

The HSA Partnership consists of Amref Health Africa, ACHEST, Health Action International, Wemos and the Dutch Ministry of Foreign Affairs. Since 2016 we have worked towards strong civil society movements to push health agendas in Kenya, Malawi, Tanzania, Uganda and Zambia, and at the African Region and the global level. By sharing our stories, we hope to inspire you. And, sitting around the campfire, we would like to hear your stories on how to create effective policy dialogues around health.

Organizers: HAS | Open session



Partner Session 15

Title: Enabling Continuous Professional Development for Mid-Level Health Workers in Africa

Description: Whereas most countries have CPD frameworks, the regular mechanisms and implementation is still lacking. This has led to a general lack of awareness and appreciation of the role CPD plays amongst the nursing and midwives fraternity. Due to the perennial shortage of health workers, the nurses and midwives have little time and motivation to engage in CPD.

The differences in infrastructure have led to a lack of equity in access of CPD opportunities between urban and rural based nurses. A few countries have attempted to meet this challenge by availing the CPD opportunities through eLearning, however, there are challenges in monitoring and quality assurance of this approach in capacity strengthening of nurses and midwives.

In some instances, CPD opportunities provide allowances while others do not thereby influencing and affecting uptake by nurses and midwives.

In some instances, CPD does not guarantee career growth thereby demotivating nurses from taking CPD courses.

The session seeks to find a common voice on how to approach CPD for mid-level health workers. What are some of the approaches we could employ in standardizing CPD courses? What cadres should be targeted as a start? How receptive are countries towards this? What are the enablers of this agenda? This agenda is a follow up to a conversation that begun at the ECSACON where the nurse training leadership from sub Saharan Africa agreed to standardize CPD training for the nursing cadre.

Organizers: **Institute of Capacity Development (ICD)** | Closed session

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Partner Session 16

Title: Immunization in Fragile and Conflict-Affected States (FCAS) in Africa: From conflict and fragility to investing in health – The case of immunization

Description: Immunization is the most cost-effective public health intervention available, and strong immunization systems create a key entry point for a range of other basic health services. In fragile and conflict-affected states, immunization delivery can help lay the foundation for universal health coverage (UHC). Currently, families in fragile and conflict-affected states often face serious barriers in accessing immunization services. Two-thirds of unvaccinated children globally live in such states.

With vaccine-preventable diseases still killing more than half a million children under five in Africa, there is an urgent need to refocus attention on how to reach the most vulnerable children. African leaders have already affirmed their support for immunization through the Addis Declaration on Immunization (ADI) signed in 2017. To help reach all children, the World Health Organization (WHO) and Gavi, the Vaccine Alliance, are providing tailored support to countries with low immunization rates. But political leadership is equally critical. This session will bring together political champions and technical experts to learn lessons from a range of contexts, catalyze political will for immunization delivery, and chart ways forward that will strengthen immunization efforts in fragile states.

Organizers: GHS-Global Health Strategies | Open session



Partner Session 17

Title: SwitchPoint Exchange: Health data, activism, art, communication and unusual collaborations

Description: SwitchPoint is a movement built around an annual gathering of the smart, the curious, and the creative from all circles of humanitarian and global development work. It’s the place where humanitarian innovation, global health, and technology collide. SwitchPoint is produced by IntraHealth International, a global health nonprofit that understands the power of unexpected partnerships to transform global health and development.

During this interactive session attendee will hear from artists, activists, and global health professionals who are expanding the definition of health and the players who can help make UHC a reality.

Drawing from the format of the annual SwitchPoint conference, attendees will first hear from a dynamic group of presenters before breaking out into smaller groups, each with a different focus, and the session will conclude as a unified group participating in an activity that showcases the importance of art, advocacy, and innovation in finding solutions to diverse health challenges

Organizers: Intrahealth | Open session



Partner Session 18

Title: Workshop: Innovative Partnership for Universal and Sustainable Health care (i-PUSH): Leveraging mobile technology and health innovations to scale up financial protection and quality of care

Description: i-PUSH is a joint initiative of Amref Health Africa and PharmAccess Foundation as a flagship solution for UHC. The project employs innovative approaches leveraging on mobile technology such as M-TIBA, Leap and M-Jali to tackle some of the biggest bottlenecks in healthcare in an integrated manner.

I-PUSH aims to improve access to quality health services for Women of Reproductive Age and is currently implemented in Kenya. Under one roof, the session brings together world leaders, policymakers, civil society, technical experts, innovators, and the private sector to explore priorities and opportunities to enhance momentum for the UHC journey.

A refreshing list of speakers and discussants will challenge and stimulate participants to sustainable approaches for inclusive financing and quality of care in light of Universal Health Coverage. Of course, there is also much room for questions and answers, you will learn more about our project; its first results, challenges and ambitions.

Organizers: Amref Enterprises (IPUSH) /Pharm Access | Open session



Partner Session 19

Title: "Committing to Community Centered UHC: Advocacy in Action"

Description: The "Committing to Community Centered UHC: Politics to Action" is a high level meeting to generate political will and commitment for community health as part of national UHC strategies and priorities. Hosted by the Communities at the Heart of UHC Campaign, the meeting will bring together ministerial leaders, multi & bi lateral leaders, advocates, implementers, and CSOs to share commitments to community health inclusion in UHC.

The session will be both inspirational and interactive. In addition to having the chance to commit driving community health progress, MOH officials and partners will have the opportunity to workshop the idea "moving from commitment to advocacy in action". This refers to co-collaboration time to identify potential needs and challenges in pushing this commitment to the highest levels of government (i.e. Heads of Finance and State) to further institutionalize community health driven UHC.

Organizers: Last mile/Communities at the heart of UHC | Closed session

Partner Session 20

Title: Revolutionize primary care through public private cooperation

Description: According to the World Health Organization, strengthening primary care is the most efficient, fair, and cost-effective way to achieve health impacts. In addition, in line with the WHO, Kenya Vision 2030, and the UN Sustainable Development Goals, Kenyan President Uhuru Kenyatta identified universal health coverage as one of his “Big Four” objectives for his second and final term in office. Amref, Philips, and the Makueni County Department of Health Services are exploring the Partnership for Primary Care that supports this agenda by improving quality and accessibility of primary care in a financially sustainable and bankable manner. Financial projections suggest that this innovative model is commercially viable and well positioned for scale across Makueni County, Kenya, and beyond. Over 12 months, Amref, Philips, and Makueni government are testing this model in three Makueni County communities.

Parallel to this partners are preparing to scale the model. FMO (Dutch Development Bank) supports this phase as a financial project developer

Organizers: Makueni County, Amref Health Africa, Royal Philips, FMO Dutch Development Bank | Open Session

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Partner Session 21

Title: Africa Media Network on Health (AMNH) Excellence in Health Journalism Award

Description: The Africa Media Network on Health (AMNH) will host its inaugural annual AMNH Excellence in Health Journalism Awards 2019 for journalists who have demonstrated outstanding merit in health reporting. The AMNH is a network of highly acclaimed journalists and editors from Kenya, Tanzania, Uganda Zambia and Malawi who are reporting on health systems strengthening at their respective countries and at the Africa regional level. The AMNH is a brainchild of Health Systems Advocacy Partnership project – a consortium of partners – Amref Health Africa, the African Center for Global Health and Social Transformation, Health Action International, Wemos, and the Dutch Ministry of Foreign Trade and Development Cooperation. The AMNH seeks to hold African leaders accountable to their national, regional and global health commitments and to ensure transparency in health expenditures. They also ensure that health policies are properly understood and implemented by duty bearers. At the gala dinner, AMNH will also be launching a Model Curricula for Journalism Education: A Certificate in Health Reporting. This course will be offered at Amref International University.

Organizers: Africa Media Awards | Closed session

Partner Session 22

Title: UHC responses to the urgent challenge of multimorbidity and NCDs

Description: The global goal to provide universal health coverage (SDG3.8) is faced with the epidemiological shift towards increasing prevalence of NCDs worldwide and multimorbidity – the coexistence of two or more chronic conditions which may be infectious, noncommunicable or mental health conditions of long duration – as an urgent and increasing challenge. In Sub-Saharan Africa, NCDs will rise by 27% over the next 10 years, resulting in 28 million additional deaths. By 2030, deaths from NCDs in Africa “are projected to exceed deaths due to communicable, maternal, perinatal and nutritional diseases combined” (WHO). Where silos are created between diseases and priorities in global health, too often, health systems are fragmented and oriented towards single-disease treatments, instead of adopting a lifecourse, person-centred approach to health that provides people with the services and care they require for multiple chronic conditions. All health and social impact programmes must include the voices of the people most affected – those living with chronic health conditions, their carers, and marginalised populations. Following the third United Nations High-Level Meeting on NCDs in 2018 and ahead of the first UN High-Level Meeting on UHC, this session will highlight the challenge of multimorbidities to achieving successful, comprehensive and person-centred UHC, by presenting case studies of lived experience of people living with multiple chronic conditions, both NCDs and other global health priorities.

Organizers: NCD Alliance | Open session



Partner Session 23

Title: Nutrition as a critical component of Universal Health Coverage

Description: The first Nutrition Symposium at the Africa Health Agenda International Conference (AHAIC) is a unique forum for governments, health experts, development partners and civil societies to discuss the importance of integrating nutrition into development plans and budgets in the context of Universal Health Coverage (UHC). Africa is one of the continents with the heaviest burden of malnutrition in the world. The World Health Organization (WHO) estimates that over 57 million children in Africa are stunted and 14 million suffer from wasting. There is an increase in childhood stunting, anaemia in adolescents and women of reproductive age; and overweight among women in Africa.

While nutrition targets are clearly articulated in various global and regional commitments such as the Millennium Development Goals (MDGs 2000-2015), Sustainable Development Goals (SDGs), World Health Assembly (WHA), Nutrition for Growth (N4G), the Rome Declaration on Nutrition, Malabo Declaration and Africa Union Agenda 2063, the big question is: Will Africa achieve the commitments and UHC without addressing malnutrition? Nutrition International's team of experts will present the latest evidence on cost-effective preventive interventions that are critical in reducing the burden of disease, undernutrition and health costs among vulnerable populations such as pregnant and lactating women, children under five and adolescent girls. "The costs of neglecting nutrition are high, causing economic losses as much as 10% of GDP.

As countries strive to eradicate infectious diseases like malaria and HIV/AIDS, chronic malnutrition and nutrition-related NCDs remain at the periphery. We have compelling evidence to prove that financing nutrition interventions is an excellent investment. Every dollar invested in reducing chronic undernutrition in children yields a \$16 return. There is a huge potential in UHC to fight malnutrition!

Organizers: Nutrition International | Open session



Partner Session 24

Title: Innovation in Action to Achieve Health for All

Description: As African countries advance plans for achieving UHC, there is widespread recognition that we will not reach our goals without innovation of all kinds. In particular, the need for research and development to advance new tools to deliver quality, affordable healthcare is highlighted prominently in both the Astana Declaration on Primary Health Care and the SDG 3 Action Plan. With this session, PATH aims to delve into "how" we will drive innovation for UHC. Specifically, taking maternal, newborn, and child health as an example, the session will explore what factors are needed to advance new health innovations—including products and system innovations—to ensure they are scaled up and access is achieved for all populations. A panel of stakeholders will discuss funding needs, improvements to regulatory systems to get products approved quickly while ensuring quality, data for decision making, and advocacy to hold decision makers accountable.

Organizers: PATH | Open session



Partner Session 25

Title: Social Accountability for UHC

Description: The commitment to UHC across the continent has never been stronger. Yet many challenges remain in achieving its basic tenets: access, quality, and financing. Momentum toward achieving UHC, and elevating the critical role of primary health care, will only be realized if the commitments made by leaders are turned into action. Amref and PATH believe social accountability is key to achieving results.

Engaging citizens in the planning, development, implementation, and evaluation of health policies and programming, as well as the accountability and allocation of resources and services, will lead to improved health and wellbeing. Citizens and providers are educated about their rights to health, mechanisms are employed for their voices to be heard, and tools are utilized to hold duty-bearers accountable for policy implementation and results. However, social accountability for health is still a relatively new practice across the continent, with a range of challenges to its full implementation and impact. This session will aim to highlight the place for social accountability in accelerating the achievement of UHC.

The session outputs will be to document, give indications for measure, and share the tools, frameworks, and coordinating mechanisms that exist, to maximize effectiveness of accountability efforts.

Organizers: Path and Amref Health Africa in Kenya | Open session



Partner session 26

Title: Advancing Primary Health Care: African leadership and accountability on the road to UHC

Description: Strong primary health care (PHC) is a foundation of UHC, and improving PHC will require better measurement and strong political leadership. At UNGA 2018, former Tanzanian President Jakaya Kikwete stood alongside WHO Director General Dr. Tedros Adhanom Ghebreyesus, and WHO Regional Director for Africa Dr. Matshidiso Rebecca Moeti as he launched One by One, Target 2030, a new campaign to galvanize high-level leadership to achieve UHC. One month later, at the Global Conference on Primary Health Care in Astana, Kazakhstan, 12 Trailblazer countries joined with the Primary Health Care Performance Initiative (PHCPI) to launch the Vital Signs Profiles – a unique snapshot of countries' PHC systems.

The Vital Signs Profiles give policymakers, advocates, citizens, and donors information they need to improve primary health care – helping them prioritize resources and policies in order to deliver on the promise of health for all.

Join PHCPI and One by One: Target 2030 for a dynamic session to:

- Explore the role that high-level political leadership and improved measurement will play in achieving UHC.
- Hear from Trailblazer country representatives about their experiences piloting the Vital Signs Profile and how it will inform PHC improvement efforts
- Explore with civil society representatives how advocates can use better data to push for improved policies and more investment in quality PHC as a foundation of UHC.

Organizers: PHCPI | Open session



Partner Session 27

Title: Achieving UHC by Strengthening Sexual and Reproductive Health and Rights

Description: This symposium aims to build greater consensus around a collective health for all movement, inclusive of sexual and reproductive health services and promotive of sexual and reproductive rights.

Sexual and reproductive health and rights (SRHR) interventions are health promotive, preventive, cost-effective and highly feasible to incorporate into universal health coverage (UHC) programs. They also are essential services, particularly for women, girls and adolescents, and are necessary to achieve health for all.

Featuring country case study presentations and a panel discussion, this session will focus on how SRHR services are being integrated into UHC policies and programs today; how integrating SRHR in the UHC agenda can support the realization of UHC; and how diverse actors can work together to promote accountability and deliver high-quality, equitable SRHR services as part of UHC policies and programs.

Organizers: Sida/Regional SRHR Team, Embassy of Sweden, Lusaka; UNFPA E & S A Regional Office | Open session



Partner session 28

Title Driving UHC in Asia and Africa through Community led Innovation

Description : While many countries in Africa and Asia have made significant progress in improving health coverage, key gaps remain. At least half of the world's population, most of whom are in Sub- Saharan Africa, South and Southeast Asia, do not have full coverage of essential health services.

This consultation examines the various actors and components that make up up complex heath eco-systems in the global south - serving as a platform that builds trust across sectors, and can reap significant dividends in accelerating Universa Heath Coverage (UHC)

Organizers: Amref Enterprises Limited/Takeda/PHFI | Open session

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Partner Session 29

Title: #SPARCtheChange: Bridging the Resource Gap for UHC in Africa through Strategic Purchasing

Description: Curious about strategic purchasing? You may have heard of it. You may already be using it. Or you may be looking for how your country can advance towards Universal Health Coverage (UHC) with limited funds.

The Strategic Purchasing Africa Resource Centre (SPARC) is here for you! SPARC – a new initiative led by Amref Health Africa – is an Africa-based resource hub that aims to strengthen strategic purchasing capacity by connecting regional experts, supporting them with global knowledge and practical resources on strategic purchasing, and assisting countries to develop home-grown solutions for country-specific contexts.

Join your colleagues – a notable group of regional health financing experts and country stakeholders – on 7th March at AHAIC 2019 in Kigali, Rwanda, for the official launch of the SPARC and a conversation on creative approaches to using the power of strategic purchasing to advance UHC. We look forward to meeting you then!

Organizers: Results for Development (co-host) (SPARC), Amref Health Africa (co-host) | Open session

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Partner Session 30

Title: FCAS: Delivering UHC in Frontier Economies – Multi-sectoral Approaches

Description: Despite the great achievements of the Millennium Development Goals, with over 21 million additional lives estimated to have been saved, achievements have spread unevenly, leaving behind the most vulnerable, both within national contexts, as well as globally. These so-called, fragile and conflict-affected settings (FCAS) in fact may offer unique opportunities. “The multiplicity of actors and agendas, typical of disrupted environments, must be turned into strength, i. e., a source of innovation and competition between alternative ways of delivering health services.

Risk-taking, frankness, experimentation, operational freedom, speed, and sensitivity to political factors are among the elements needed to foster the systemic recovery of a disrupted health sector”.

Innovation is needed at various levels ranging from accepting new formats of health systems governance or new approaches to service delivery, to operating/ promoting a shift in global mentality about social and market behaviour in the health sector, to changing the perception of FCAS from failed contexts to spaces of unusual opportunities and actors.

This session aims to:

1. Enhance awareness among stakeholders of opportunities represented by FCAS to strengthen and deliver viable solutions to health systems in these contexts;
2. Promote increasing ownership of FCAS policy-makers, practitioners and scholars in the quest for home-grown solutions.
3. Foster innovative approaches and unlikely partnerships in addressing health challenges in FCAS

Organizers: Swiss Development Agency, Roche, MSH | Open session

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Partner Session 31

Title: UN Foundation

Description: the objectives of the session are; Promote discussion and learning around specific opportunities for the private sector to support the UHC agenda; Gather inputs from the private sector to begin developing a framework for the business case for investing in UHC, and Further private sector consultation on UHC to identify key asks in advance of the UN High-Level Meeting

Organizers: UN Foundation, World Economic Forum, UHC2030, Business Council for the UN, UN Global Compact | Open session

Partner Session 32

Title: Why UHC matters for business: high-level private sector consultation

Description: This session will bring together representatives from the business sector with the aim of having a general, high-level discussion on the UHC agenda, the upcoming high-level meeting at the UN and the UHC2030 advocacy process.

Business representatives will have the opportunity to interact with UHC2030 co-chairs to discuss the importance of investing in UHC for long term socio-economic development and how they can be partners and advocates for the UHC movement.

This session will aim to look beyond the traditional health sector and explore how business from across the industry spectrum can support the aims of UHC and health for all.

Organizers: Amref Health Africa, UN Foundation, UHC2030, WEF, UN Global Compact | Open session

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Partner Session 33

Title: Expanding Access to Safe, Quality Medicines to Achieve Universal Health Coverage in Africa

Description: Global health progress depends on safe, quality medicines reaching the people who need them the most. But around the world, substandard and falsified medicines are harming patients, costing economies billions of dollars, undermining trust in health systems and accelerating antimicrobial resistance.

Hosted by United States Pharmacopoeia (USP), this session will focus on the role of governments and key stakeholders in the life-course of a medicine and how the strength of a health system can determine whether patients receive safe, quality medicines and achieve UHC in Africa.

The session will feature a dynamic panel discussion that traces the “life-course” of a medicine from production to patient. It will seek to elevate the importance of safe, quality medicines through the vision for a world where all have access to beneficial medicines. Furthermore, this session will bring together key stakeholders working in the Africa region to raise awareness and lay the groundwork for greater attention, investment and action around medicines quality.

Organizers: United States Pharmacopeia (USP) | Open session

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Partner Session 34

Title: Achieving Malaria Elimination to reach Universal Health Coverage

Description: Malaria represent a disproportionate burden on Africa's primary health care. Malaria elimination efforts are critical to achieving universal health coverage (UHC).

Utilizing WHO's sobering 2018 World Report on the flat lining of malaria success and the new RBM Partnership to end malaria's High Burden, High Impact response, panelists explore the possible explanations as well as the action steps needed to help re-capture Africa's earlier successes in the fight against malaria.

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Organizers: VESTERGAARD co-hosting with RBM | Open session

Partner Session 35

Title: Putting patient centered care and human dignity at the heart of Universal Health Coverage: the central role of palliative care

Description: Our session will focus on palliative care, a core component of UHC, and an essential health service which uses a person and family centered care model in managing experienced by children and adults with life limiting and life threatening illnesses. This encompasses the physical, psychological, social and spiritual needs and symptoms.

Palliative care focuses on peace and dignity for the sick person, the family and care providers and aims at allowing people to live life to the fullest each day and to maintain the highest possible quality of life. African States joined the rest of the world to support the passing of the World Health Assembly (WHA67.19) resolution on palliative care in May 2014 and other global and regional commitments. Although the need for palliative care is rapidly increasing, access to services in Africa remains limited.

At this session, we will review progress being made in Africa, highlight evidence based unmet need, demonstrate the economic and human case for palliative care and strategies for countries to include palliative care and pain relief into their UHC programs.

Organizer: African Palliative Care Association (APCA); World-wide Hospice Palliative Care Alliance (WHPCA); Kenya Hospices and Palliative Care Association (KEHPCA); Palliative Care Association of Uganda (PCAU); Hospice Palliative Care Association of South Africa (HPCA); Palliative Care Association of Rwanda (PCAR); Rwanda Bio-medical Center (RBC)/ Ministry of Health; Open Society Foundations; Open Society Initiative for Eastern Africa | Open session

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Partner Session 36

Title: Global Health Leadership and Management Network Workshop

Description: This side meeting of a workgroup within the Global Health Leadership and Management Network, a community of practice that seeks to advance capacity building efforts in management and leadership to improve public health in low to middle income countries. This meeting of the network will be a day long working session to settle on a conceptual framework or theory of action to present to the global health community. Will also discuss how management and leadership development can support universal health care efforts

Organizers: IMPACT Program, Division of Global Health Protection, Center for Global Health, Centers for Disease Control and Prevention | Closed session

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Partner Session 37

Title: Management and Leadership as a Force Multiplier for achieving Universal Health Care Goals

Description: Former CDC Director William Foege stated, “the lack of management skills appears to be the single most important barrier to improving health throughout the world.” Strong leadership and management capacity are essential ‘force multipliers’ within health systems that increase the prospect of better health outcomes. However, without consensus on definitions and level of investment in robust evaluations to measure impact, evidence isn’t available to inform decisions regarding prioritization, adaptation, or scale-up.

An opening panel will describe efforts to build leadership and management capacity in global health systems and will segue into an interactive session where members of the global health community will discuss the challenges associated with capacity building in these areas, as well as potential avenues by which management and leadership can be built to improve universal health care efforts and support sustainable development goals.

Organizers: CDC IMPACT Program, Division of Global Health Protection, Center for Global Health, Centers for Disease Control and Prevention | Open session



Partner Session 38

Title: What government and civil society can do to prevent and reduce the burden of NCDs for their citizens; Integration of NCD care into primary health care

Description: As the world is experiencing a drastic shift from infectious diseases to non-communicable diseases, low and middle income countries are battling with a double burden of disease both infectious and non-communicable diseases affecting communities especially those living in remote and underserved settings. Moreover, the investments in healthcare seems not to follow the disease burden given the recent epidemics of Ebola, Zika, MERS, have diverted funding towards global health security leaving the non-communicable diseases and infectious diseases domains underfunded as well as policy wise how can non-health actors could be sensitized to invest and engage in the fight against non-communicable diseases and what are the needed platforms for this to take place so that Universal Health Coverage for Non-Communicable diseases could be achieved.

This session will explore what policies, stakeholders, technologies and models of implementation are needed and how resources from other health domains can be leveraged to address non-communicable diseases.

Organizers: Partners In Health/Inshuti Mu Buzima (PIH/IMB) and Rwanda Biomedical Center (RBC) | Open session



Partner Session 39

Title: Improving Public Health Management for Action (IMPACT) Program Fellow Symposium

Session 1: The Improving Public Health Management for Action (IMPACT) Program is an innovative management and leadership training program focused on building capacity in government public health systems. IMPACT fellows spend 75% of their time in field assignments, building competence directly through the application of skills including program planning and management, evaluation, budget and financial management, and community engagement and assessment.

On an annual basis, the IMPACT Fellowship Program brings together its fellows to present on various field projects they have been completing in their countries at national and sub-national levels in a public health management symposium. The IMPACT Kenya program is pleased to hold this year's symposium within the African Health Agenda International Conference, providing an opportunity for fellows to learn from the global health community and for experts to witness the power of management and leadership to improve health outcomes.

Session 2: Session Description: The Improving Public Health Management for Action (IMPACT) Program is an innovative management and leadership training program focused on building capacity in government public health systems. IMPACT fellows spend 75% of their time in field assignments, building competence directly through the application of skills including program planning and management, evaluation, budget and financial management, and community engagement and assessment.

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Organizers: **IMPACT Program, Division of Global Health Protection, Center for Global Health, Centers for Disease Control and Prevention** | Open session

CAPACITY BUILDING SKILLS LAB/ WORKSHOP SERIES

This is a 5-part research skills lab/ workshop series that are jointly organized by Amref International University (AMIU) and Elsevier with the aim of building the capacity of young researchers and policy makers on selected research processes.

Research Skills lab/ Workshop 1

Validity in Research: a skills clinic workshop

Venue: MH2

Time: 1.30-3.00pm

Description: The ultimate goal of research is to provide recommendations that inform legislation, policy, regulations and/or guidelines resulting into practice. In this regard, it is important that these recommendations emanate from valid conclusions and inferences. Validity emanates from SMART objectives, sound design and appropriate analysis.

Would you like to increase your capacity to undertake research that results in drawing of valid conclusions and meaningful inferences? Attend the practical skills building clinic by experienced research scientists from Amref International University.

Organizer: **Amref International University, AMIU**

Instructors: **Prof Marion Mutugi; Dr Alice Lakati; Dr Josephat Nyagero – AMIU**

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Research skills lab/ Workshop 2

Getting Published: An Author Workshop

Venue: MH2

Time: 3.45-5.15pm

Description: Getting published can be one of the toughest hurdles a young researcher faces. This workshop will tackle burning questions such as how to find the right journal for your research, how to write a compelling abstract and structure your article. You'll also receive tips and tricks on avoiding predatory publishers, using an effective reference manager and addressing reviewer questions.

This workshop will provide insights from Elsevier, a leading science and health publisher as well as from an African journal perspective in an informal atmosphere with plenty of room for discussion.

Organizer: **Elsevier**

Instructors: **Christine Aime Sempe, PhD in pharmaco immunology, Directeur Editorial Adjoint, Executive publisher (Dermatology, Infectious diseases, Urology, Allergology, Oncology), Elsevier**
Dr Pius Kabututu Zakayi, Editor of Annales Africaines de Medecine, DRC

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Research Skills Lab/ Workshop 3: **Writing a good abstract for a conference**

Venue: MH2 **Time: 10.45-12.15pm**

Description: Getting your study accepted at any conference will involve writing of a good abstract. This skills lab/ workshop shall explain how to make sure your abstract stands out to the conference organisers. An abstract is more than a brief summary that is representative of your study. You must use good writing practices for each abstract section, know the common mistakes, and understand how your abstract will be scored and reasons for rejection. It is the most read and subsequently should be well written. This session will address the process and give tips on how you can improve on the writing of your abstracts for submission to future conferences.

Organizers: **Amref International University (AMIU)**

Instructors: **Prof Marion Mutugi; Dr Josephat Nyagero; Dr Alice Lakati – AMIU**

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Research Skills Lab/ Workshop 4: **Moving Research from publishing to Policy!**

Venue: ADI **Time: 3.45-5.15pm**

Publications are at the core of a researcher's work: they constitute a record of contribution to knowledge, are used to value the work of researchers and their institutions, and when translated appropriately into new and improved policies, they can be a powerful step towards improving people's lives. But how real is a publication's impact on the community? The journey from publication to policy implementation is not straightforward and it represents a challenge for researchers, publishers, policymakers, and community stakeholders.

This panel will discuss this challenging journey through the lenses of these stakeholders. What are the barriers they face to move research from publishing to policy? What are the innovative and homegrown solutions that can facilitate and accelerate the journey from knowledge generation to implementation?

Instructors: **Yap Boum, yap.boum@epicentre.msf.org and Anne Roca, a.roca@lancet.com**

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Research Skills Lab/ Workshop 5: **Is the preponderance of English a barrier to scientific communication? Defining the way forward – to be presented in French**

Venue: Auditorium Club 3 **Time: 10.45-12.15pm**

The predominance of English as the language of research and health communication has an impact on who gets funding, who gets involved in international projects, who gets published, and ultimately whose voice gets heard.

Sharing knowledge as human capital is an essential step toward sustainable and equitable policies, better quality, integrated, and people-centred health services, all principles without which Universal Health Coverage (UHC) cannot become a reality. And yet, could the use of English as a dominant language in publications be an obstacle to progress in health towards UHC, in a world where more than three quarters of the population has no notion of English? What hurdles does this predominance raise in the path of non-anglophone researchers?

Bring your voice to the debate and join a francophone panel of representatives from journals, research institutions, and international organisations to discuss challenges and solutions.

L'hégémonie de l'anglais est-elle un frein à la communication scientifique? Comment y répondre?

La maîtrise de l'anglais est quasiment incontournable pour ceux qui évoluent dans le domaine de la recherche et de la communication scientifique. Elle influence largement l'accès au financement, la participation aux projets internationaux, la publication dans des revues indexées, et la possibilité de faire entendre sa voix au niveau international.

Le partage des connaissances comme capital humain est fondamental à la mise en place de politiques pérennes plus équitables et de services de santé de meilleure qualité, intégrés et centrés sur la personne, sans lesquels la couverture sanitaire universelle (CSU) ne restera qu'une illusion. Cependant, la prépondérance des publications en anglais est-elle une entrave à la CSU dans un monde où moins d'un quart de la population parle cette langue? L'hégémonie de l'anglais est-elle un obstacle au développement de jeunes talents non-anglophones?

Venez débattre de ce sujet avec un panel francophone de représentants de revues scientifiques, d'institutions de recherche, et d'organisations internationales à la recherche de solutions à ce

Instructor: **Anne Roca, a.roca@lancet.com**

ABSTRACTS: ORALS AND LIGHTNING ORALS SESSIONS

DAY 1 - TUESDAY

Oral Presentations

TUABOO1: Support cutters on entrepreneurship training to reduce Female Genital Mutilation (FGM) in Nomadic communities in Kilindi District; **George Saiteu | Amref Health Africa, Tanzania**

Issues: Some Tanzanian communities believe that to be real women you must undergo female genital mutilation/cut (FGM/C) to pass from childhood to womanhood. The prevalence of FGM is about 14% in Tanga region. In Kilindi district FGM is practiced to 90% of girls aged 7 to 15 years. Cutters practice this harmful culture as part of their tradition and as a source of income. On average cutters earn 25,000 shillings per month by cutting 5 girls.

Description: For more than a decade now, Amref Health Africa in Tanzania has implemented projects which address FGM in Sexual and Reproductive Health (SRH) interventions. As noted above, cutting has been shown to be one of the sources of income for most cutters. Through the ARP and WASH project in Kilindi district Amref in collaboration with the district authority designed and provided an entrepreneurship skills training to 20 cutters. After the training the cutters formed income generating (IG) groups which were linked to the district authority (community development department) which offered the IG groups those loans. Currently, five women IG groups have been formed and issued loans worth 2 million shillings each. These loans have helped them to establish income generating projects like cattle rearing. Following this alternative and respectful income, these cutters denounced public that we will no longer cut girls. The denouncing campaign had a slogan “VunjaKiwembe”, which means break the Razorblade. Three hundred girls were saved from being cut when these cutters denounced the cutting.

Lesson learnt: Building capacity for alternative source of income among the cutters will contribute in reducing FGM practice in the communities.

Next steps: Scaling up of this approach to other communities with similar practices is highly recommended as one of effective approaches to reduce FGM practice and save our girls in future.

TUABO02: Socio cultural beliefs and the demand for and uptake of community based social health insurance in Nigeria: a case study of Ondo Residents; **Oluwatobiloba Akerele¹, Timothy Akinmurele¹ | ¹Equitable Health Access Health Initiative, Nigeria**

Background: Through the ages, social organization has been rooted in the ability of community members to form common experiences based on their culture and belief system. Equal health access is an indicator of a developed society. Hence, the reason Universal Health Coverage is central to sustainable development and the need for Community Based Social Health Insurance in communities. CBSHIP is a means to achieve UHC by ensuring all individuals and communities can access necessary, quality and efficient healthcare through a collective pool based on the ethics of mutual aid and understanding.

Methods: In a bid to examine Ondo residents' socio-cultural belief system, demand and uptake of CBSHIP, a cross sectional mixed methods study was carried out. The study was anchored on the assumptions of the social action theory. In-depth interviews were conducted to get a picture of the sociocultural belief system in Ondo. Two hundred and fifty copies of the questionnaire about respondents' socio-cultural beliefs and demand for CBSHIP were administered to Ondo residents. Observational data were collected during Social and Behavior Change Communication intervention. Questionnaire data were analyzed with the Chi-square method, ten null hypotheses were formulated and tested at .05 level of significance.

Results: The findings indicate a statistically significant relationship between Ondo residents' sociocultural belief system and demand for CBSHIP because p value is less than 0.5 and equal to 0.025. Triangulation of findings from case review, in-depth interviews and observation with intervention suggest that Ondo residents' demand for CBSHIP, uptake of CBSHIP and consistency on CBSHIP are negatively affected by the society's conviction that sickness should not be predicted.

Conclusions: These findings resonate with the assumptions of the social action theory. This study recommends that SBCC interventions for CBSHIP should be complemented with customary and legal frameworks. This will strengthen CBSHIP schemes and address socio-cultural barriers towards achieving UHC.



TUABO03: Experiences of caring for older people living with dementia in Sub-Saharan Africa: A Scoping Review of the Evidence Base; **Purity Mwendwa¹, Thilo Kroll² | ¹Trinity College Dublin Centre for Global Health, Ireland, ²University College Dublin, Ireland**

Background: Amid deficient health systems responses in sub-Saharan Africa (SSA) to health challenges, older adults face an increased burden of ill-health and disability from non-communicable diseases (NCD) including dementia. Dementia is a progressive degenerative condition which encompasses a decline in cognition and communication. In 2015 2.13 million people were estimated to be living with dementia in SSA, with numbers projected to nearly double every 20 years. Limited government supports for older people leaves family members struggling to meet the needs of older people living with dementia (OPLWD). This review synthesises the literature on experiences of caring for OPLWD in SSA.

Methods: A Scoping Review – an accepted systematic approach to reviewing and synthesising evidence in emergent thematic areas – was conducted involving four electronic databases, MEDLINE, CINAHL EMBASE, and PsycINFO and Open Grey. Bespoke expert search strings were developed for each database following recommendations by Arksey and O'Malley 2005 and drawing on Boolean combinations of alternative terms for Dementia, "caregiver", "older people", "experience*", and 'sub-Saharan Africa.'" Literature was searched from March 2000 to September 2018. Findings were discussed and elaborated with Carers of OPLWD in the sub-Saharan context.

Findings: 16 publications met the inclusion criteria are discussed in the final review. The following themes were identified; 1) a lack of knowledge about dementia, 2) emotional and practical caring challenges for OPLWD, 3) positive outcomes of caregiving (emotional gain) 4) the lack of affordable health and social services from the government. Carers highlighted the need of respite services and counselling.

Conclusion: Our scoping review reveals a useful evidence base which offers important insights into the everyday reality of caring for OPLWD in SSA. The findings will inform a fuller consideration of dementia in national health and social care agendas in SSA.



TUABO04 : Shifting Social cultural and gender norms and breaking barriers to increase uptake of FP/RMNCAH, WASH and Nutrition services using the 'LOIPI LO LPAYANI' in Samburu traditional leaders' models; **Duncan Ager | Amref Health Africa, Kenya**

Introduction: Until recently, most global health interventions to reduce child mortality have focused on the post-neonatal period, leaving neonates vulnerable and stalling progress. Samburu County comprises of 9 predominate clans namely: [Lmasula; Long'eli; Lpisikishu; Lukamae; Lny'aparai; Loimisi; Lng'wesi, Lorokushu and Lparasoro]. Declaration with a health benefit for the existing and generations to come. The Formative assessment (2017) pointed socio-cultural and gender norms as barriers to adoption of desirable FP/RMNCAH practices. Skilled delivery was 29% unmet FP needs 21% children fully immunized 57%.

Objective: To enhance male engagement as a 'Tipping Point' to address socio-cultural and gender norms to increase FP/RMNCAH WASH and Nutrition Services Methodology: Male engagement as a 'Tipping Point for change' in the hard to reach communities, Joint planning between CHMT Samburu, AFYA TIMIZA, SCoE, and Launoni of Lorokushu clan as an entry point to the other Launoni's, to scaling up access to services on FP/RMNCAH Thus, the campaign 'Ushujaa' (meaning heroism) or 'Nkang'onisho' in the Samburu language launched.

Results: Skilled delivery 56% unmet FP needs 15% children fully immunized 87%. Increased adoption and utilization of healthy seeking behaviors among men and their partners, the endorsement of the AFYA TIMIZA FPRHMNCAH WASH and Nutrition. With increased male participation in family health issues, Conclusion: The 'Loipi Lo Lpayani' initiative avails a platform for societal change and health systems and cultural interfaces that can be used for joint planning and implementation.

Recommendation: Involvement of men, tapping into the existing leadership structures, empowering traditional leaders and Integration with their system holds potential for achieving scale up and sustainability of FP/RMNCAH services



TUABO05: Addressing access to and utilization of immunization services in Ogun state of Nigeria using participatory evaluation and action research; **Ngozi Akwataghibe | Royal Tropical Institute, The Netherlands**

Background: In 2015, Ogun state, Nigeria had full immunization coverage for children, 0-23 months in 12 of its 20 local government areas but eight had unimmunized children, with the highest burden (37%) in Remo-North. Participatory action research (PAR) was implemented to gain insight into access and use of immunization services in Remo-North and provide context specific solutions. Formative evaluation assessed the PAR's relevance, efficiency and effectiveness.

Methods: The intervention occurred in the best (Ipara) and worst (Ilara) performing wards in Remo North. Situational analysis identified cultural, social and health system barriers to access and utilization of immunization; findings were validated and discussed in dialogues between community members, health workers and local government officials to develop Joint Action Plans, implemented in two 4-month action phases. End-line assessment was conducted after one year. The evaluation used pre-test/post-test design with mixed methods - survey of 210 households with caregivers of under-five children; secondary analysis of the Health Management Information Systems (HMIS); cost-effectiveness analysis; 24 in-depth interviews with health workers, government and community stakeholders; and 16 focus group discussions with community women and men.

Results: In both wards, significantly more caregivers visited health facilities for immunization at end line (83.2%) than at baseline (54.2%); and immunization coverage increased from 60.7% to 90.9%. Mid-way, HMIS data showed that coverage increased in Ilara (26% to 59%); for Ipara, coverage remained high for all antigens except measles (76% to 59%), and this was ascribed to cultural barriers and reduced utilization of the Ipara facility due to revitalization of Ilara facility. Improved access to antenatal and delivery services in Ilara health facility were important drivers of immunization utilization. The intervention was cost-effective in Ilara.

Conclusion: Joint-learning and action improved routine immunization and access to health services. A longer implementation time will provide more insight into transferability.

Keywords: Dialogues, Action, Immunization, Access



TUABO06: Men breaking barriers on stigma of menstruation among adolescent's girls: the case of adolescent girls on transformative advocacy (AGoTA) project implemented by stretchers youth organization (SYO) in Mombasa County, Kenya; **James Atito Omolo | Stretchers Youth Organization, Kenya**

Background: Menstrual hygiene is a necessity for every girl in puberty. However, some girls are unable to access them due to ignorance from the parents especially fathers and poverty. 65% of adolescent girls and young women in Kenya are unable to afford the sanitary towels. Majority use the rags, mattresses, cotton etc bringing painful, rashes and infections. Some girls miss classes every month, limiting their performance and missing other useful engagements. These challenges push girls to unprotected sex to get sanitary towels putting them at risk of STIs, HIV or unintended-pregnancy, even both.

Program description: SYO through AGoTA project used holistic and multi-faceted approach to handle young people. 35 youths (15females & 15males) were trained on peer education and Sexual reproductive health right (SRHR) advocacy. Champions acquired knowledge and skills to support peers on SRHR issues. AGoTA champions spearheaded focus group discussions, mentorship and girl's forum sensitizing girls on menstrual hygiene, using menstrual cups and life skills. Male champions conducted door-to-door campaigns, sensitizing male counterparts on the need to support adolescent girls with sanitary towels without sexual exploitation. A total of 856 adolescents' girls and young women and 632 adolescent boys and young men aged 15-24 years and 200 fathers were reached within Mombasa County from May to September 2018.

Lesson learnt: We learnt that Parent - girl communication is key on issues of menstruation. Menstrual cups are user friendly, economical and environmental friendly.

Conclusion & recommendation: Therefore, parents need to be sensitized on parent- girl communication. Provision of menstrual cup should be given a priority as an intervention for SRHR programs targeting young adolescent in poverty stricken settings. Male sensitization has enabled men to boldly embrace their responsibility to support girls in menstruation. This will enable parents to engage their girls and provide necessary support during menstruation hence limiting risk factor to girls and future generation.



TUABO07: Addressing contextual factors affecting quality of care in Malawi's public sector maternal health services; **Janet Mambulasa¹, Mscellen Chirwa², Zubia Mumtaz³, Patrick Patterson³, Madalitso Tolani¹, Fannie Kachale⁴, Josephat Nyagero⁵ | ¹Amref Health Africa, Malawi, ²University of Malawi, Malawi, ³University of Alberta, Canada, ⁴Ministry of Health, Malawi, ⁵Amref Health Africa, Kenya**

Background: Poor quality of maternal care remains a major contributing factor to high maternal mortality rate in Malawi. This study was conducted to identify contextual factors within the Malawian health care system that influence quality improvements at facility level.

Methods: An Organizational Ethnography was conducted in 3 health facilities for 6 months, October 2017 to April 2018. Data was collected through participant observations and in- depth interviews. Health care providers were observed as they did their daily work, focussing on how maternal health care quality was implemented; hospital management and health care providers were interviewed to explore their understanding and interpretations of quality of care and the issues they faced in providing care. Data was analysed through content analysis.

Results: A number of factors compromised quality of care: there was severe staff shortages as compared to the number of women served. There were also frequent staff rotations in the wards, which disrupted continuity of care. Staff also lacked training on quality standards and, in some sites; there were no supervision and monitoring of staff providing care. In terms of infrastructure, there were inadequate beds for the number of patients in maternity and labour wards. The facilities also faced water shortages and frequent interrupted power supplies. This affected service delivery as backup electricity sources were not adequate to maintain vital operations during blackouts. All the sites faced transportation problems from having too few ambulances available to meet high demand. The facilities experienced frequent shortages of drugs and medical supplies due to inadequate funds. They also lacked vital medical equipment to conduct some basic diagnostic procedures.

Conclusion and Recommendations: To address challenges of quality of care, it is necessary to address severe staff shortages, electricity and water problems, and to provide adequate funding for equipment and medical supplies



TUABO08: The Ecology of the Yaoundé GynecoObstetric and Pediatric Hospital ICU lessons for a contemporary picture of nosocomial infections in the unit; **Dohbit Sama Julius¹, Namanou Ines Emma Woks², Samuel Lelebomgni², Bikaka², Doh William², Angwafo III Fru Forbuzshi²** | ¹Faculté de Médecine et des Sciences Biomédicales, Cameroon, ²Hôpital GynécoObstétrique et Pédiatrique, Cameroun

Background: Nosocomial infections are a major cause of morbidity and mortality of hospitalized patients. The most susceptible patients being those admitted in the intensive care unit (ICU). Despite the existence of well-defined guidelines for prevention and control of these infections, the burden remains high in sub-Saharan Africa. This could be attributed to poor implementation of recommendations to prevent nosocomial infections. No sterilization has been performed in the intensive care unit of the Yaoundé Gynaeco-Obstetric and Paediatric Hospital (YGOPH), Cameroon since its inception. We therefore sought to study the ecology of pathogens in the ICU of the YGOPH.

Materials and methods: The study was designed as a cross-sectional descriptive study. One hundred and one laboratory specimens were collected and analysed from highly suspicious surfaces in the intensive care unit of YGOPH before intense disinfection with formaldehyde steam (8ml/m³).

Results: One hundred and thirty-seven isolates were found from the different samples (sockets, door knobs, medical instrument carts, bedrails, chairs, suction devices, tables, cupboards and infusion stands) within the staff offices, admission wards and along the corridor of the intensive care unit. Environmental contamination before disinfection was mainly by bacteria in 75.2% (103/137) and fungi in 24.8% (34/137). Three families (Staphylococcaceae, Moraxellaceae and Enterobacteriaceae) and 11 species of bacteria were isolated before disinfection, with Staphylococcus saprophyticus being the most encountered. Withal, Aspergillus spp. was the most recovered of the two fungi species isolated.

Conclusion: The ICU may be a potentially dangerous environment for hospitalized patients. A comparative study of the picture of nosocomial infections found in patients hospitalized before this study should be conducted. It may be important to carry out proper disinfection regularly to minimize the presence of pathogens in the ICU.

Keywords: Nosocomial infections, intensive care unit, Bdisinfection



TUABO09: Assessment of parasitic contamination on ready -to-eat vegetable salad from selected localities in the Accra Metropolis of Ghana; **Aboagye Vincent¹, Dennis Dekugmen Yar¹, Papa Kofi Amissah Reynolds¹ | ¹University of Education, Ghana**

Introduction: Globally, vegetables have become an essential part of the human diet due to their high nutritional benefits. Vegetable salads are eaten raw with little or no heating and therefore could become associated with food borne illness. This study therefore assessed parasitic contamination of ready to eat vegetables salads from street vended foods in the Accra Metropolis of Ghana.

Methods: A cross-sectional study was conducted to determine the level of parasitic contamination on ready-to-eat vegetable salad in a selected sub-Metro of the Accra Metropolis. A total of 165 ready-to-eat vegetable salad was randomly sampled, washed with physiological saline and microscopically examined using concentration method.

Results: Out of the 165 samples examined, 28% (46) had parasites of which *Moniezia* spp. (7.27%), *Trichuris trichiura* and *Giardia lamblia* (3.64%), and *Ascaris lumbricoides* (3.3%) were predominant. Other parasites detected were *Entamoeba coli* (2.42%), *Entamoeba histolytica* and *Fasciola hepatica* (1.82%), *Ancylostoma Duodenale* (1.21%) and others (<1%).

Conclusion and Recommendations: Vegetables salads have been found to be a salient mode for the transmission of parasitic infections. The predominant parasitic contaminations in the ready-to-eat vegetable salad were *Moniezia* spp., *T. trichiura* and *G. lamblia*. This outcome suggests health threat to the general public eating these vegetable salads. It is therefore recommended that training and education on food safety be conducted for food service providers through to consumers, thorough washing of vegetable salad before they are consumed and avoid the use of untreated animal waste as manure.

Keywords: Vegetable salad, parasites, contamination, Accra Metropolis



TUABO10: Towards zero mother to child transmission of HIV: a case of Amref Kibera community health centre in Kenya;
Lydia Kuria | Amref Health Africa, Kenya

Background: About 40% of HIV Exposed infants (HEI) will acquire the virus without proper interventions. The aim of this retrospective study is to demonstrate that effective interventions and innovations towards mother and baby pair can contribute to the elimination of mother to child transmission (MTCT) goal.

Methods: Retrospective cohort study design was used at the Amref Kibera Community Health Centre for HEI at 24 months. Birth cohort data was abstracted from the Ministry of Health facility longitudinal HEI register for infant cohorts attaining 24 months. The pre and post intervention period outcomes and were assessed of HEI born between January to December 2013 January to December 2014 and 2015 respectively. Birth cohort analyses was conducted using frequencies and proportions

Results: In the 2013 birth cohort 65 HEIs were enrolled. Their 24 months' outcomes were: 4 were positive translating to an overall transmission rate of 6.2% and 50(76.9%) were negative. HIV positivity was diagnosed at a median age of 9 months. In the 2014 birth cohort 72 HEIs were enrolled. Their 24 months' outcomes were: 4 were positive reducing the transmission rate to 5.6%, 53(73.6%) turned negative. HIV positivity was diagnosed at a median age of 4 months in the 2015 birth cohort 79 HEIs were enrolled. Their 24 months their outcomes were: 3 were positive further reducing the transmission rate to 3.8%, 63(79.7%) turned negative. HIV positivity was diagnosed at a median age of 9 months

Conclusions: The continuous reduction of MTCT displayed from the three cohorts demonstrates that the dream of MTCT elimination is possible. There is need to come up with quality tailor made, targeted strategies and approaches towards the mother baby pair in the quest of achieving zero MTCT.3



TUABO11: Improving quality of service delivery for care of Preterm babies: Lessons from the Preterm Birth Initiative in Eastern Uganda; **Gertrude Namazzi¹, Paul Mubiri¹, Phillip Wandulu¹, Rogers Mandu¹, Darious Kajjo¹, Elizabeth Butrick², Lara Miller², Dilys Walker², Peter Waiswa¹ | ¹Makerere University School of Public Health, Uganda, ²University of California, San Francisco**

Background: Complications due to prematurity are the leading cause of neonatal mortality worldwide. In Uganda, neonatal mortality remains at 27/1000 live births despite existence of high impact interventions. We aimed at reducing preterm mortality through an integrated intervention package to improve providers' evidence based practices (EBP) in six hospitals in eastern Uganda.

Methods: We conducted a quasi-experimental study from 2016 to 2018 in six hospitals in eastern Uganda. We implemented data strengthening and use of modified Safe Child birth checklist for EBP. We provided simulation-based training and clinical mentorship to reinforce the EBPs, and a quality improvement collaborative to identify and address systems bottlenecks. Outcome data were collected monthly from facility registers. Pre/post tests and video analysis of simulations were also recorded.

Preliminary findings: Pre-discharge preterm mortality reduced from a baseline of 10/1000 live births to 8.2/1000 live births in eighteen months. Process data revealed improvements in EBP: administration of Antenatal Cortical Steroids, use of a partograph and KMC improved from 20% to 90%, 45% to 90%, and 60% to 89% respectively. Video analysis showed improvement in the providers' skills: For instance, management of a preterm baby following Chorioamnionitis improved from 55% to 70%. Average pre/post-test scores markedly improved from 48% to 70%. However, as quality of care improves there is increased utilization of the neonatal units due to referrals with potential to compromise the quality of care. Midwives needed continued technical support for complicated cases, but medical officers lacked adequate skills and interest in neonatal care.

Conclusion: An integrated intervention package resulted in improved quality of service delivery which seems promising in reducing facility-based preterm mortality. To accelerate reduction in neonatal mortality, such a package should be extended to lower level facilities to address referrals, coupled with continued technical support from paediatricians.



TUABO12: Characteristics of the health workforce in Africa, analysis from labour force surveys and census data to generate new evidence on the health labour market; **Mathieu Boniol¹, Alan Ibeagha¹, Lihui Xu¹, Aurora Saares¹, Teena Kunjumen¹, Khassoum Diallo¹ | ¹World Health Organization, Switzerland**

Background: To better guide policies on health workforce, improved information throughout the health labour market is required. Additional data sources, outside of the health sector should be used such as Labour Force Surveys (LFS) and census data.

Methods: Within the interagency data exchange, a collaboration between WHO and ILO enabled the analysis of LFS. Data on health workers were from 9 countries in Africa with occupation coded with sufficient detail to identify health workers, i.e. reported with ISCO -08 classification at 3 or 4 digits or coded with ISCO-88 at 4 digits. Collaboration with IPUMS international enabled the analysis of census data from 12 countries.

Results: Data from LFS showed variability of sample size, with number of health workers in surveys ranging from 76 in Gambia to 2773 in South Africa. The percentage of health workers among active population ranged from 0.7% in Angola to 3.4% in South Africa. Density for each occupation was estimated with error margin such as density of physicians in Ghana of 1.7 per 10,000 populations (95%CI 0.8-3.0) or in South Africa of 9.1 per 10,000 (95%CI 7.8-10.5).

Data from census provided a complete picture of the stock of health workers but with variable definition used. However, distribution at subnational level was available and large showed disparities in availability of health workers. For example, in Botswana in 2011 the density of nurses and midwives varied from 9 to 158 per 10,000. Information from both sources enabled investigating health workers' distribution by age and gender. But LFS included also data on sector (public/private) and working conditions.

Conclusions and recommendations: Both sources of data proved to increase the level of information on health workforce with strengths and limitations. Countries are encouraged to make use of these data for better understanding the key challenges on health workers.



TUABO13: Sustainable water and sanitation services through WASH-Integrated VSLAs in Northern Uganda; **Hajra Mukasa | Amref Health Africa in Uganda**

Background: In Northern Uganda, Water, Sanitation and Hygiene (WASH) infrastructure break down soon after the project ends. This is mostly due to challenges associated with mobilizing funds for Operation and Maintenance (O&M) by selected Water User committees (WUCs). This undermines functionality of water points, safe water access and results into waste of investment. In Agago and Pader Districts, the water source functionality rate stood at 61% and 57% respectively in 2015. To address this, Amref Health Africa introduced the WASH-Integrated Village Savings and loans Associations (VSLAs) model with the aim of promoting simple saving approach for O&M of water sources.

Description: A total of 40 WASH-Integrated VSLAs from Pader and Agago Districts were formed and trained. These were attached to the 40 rehabilitated water points and were integrated with the selected WUCs. This resulted into the WASH-focused VSLAs. These were trained and guided to continue saving but with WASH as an objective for saving. Group members meet weekly to save money with the treasurer. The saved money is also lent out to the contributing members as loans. Members pay back the loans with an interest. As stipulated in their constitution, a percentage of the savings is directed towards O&M thus ensuring that there is always money available for O&M of WASH facilities. Members also engage in other income activities such as group farming which widens their financial base. For one to belong to this group, one must have improved sanitation facilities at home.

Results: Easy mobilization of funds for O&M of WASH infrastructure (over \$300 per group). Increased functionality of water sources (90%) among target communities resulting in increased safe water access. Increased sanitation coverage (85%) leading to better health.

Conclusion: The WASH-integrated VSLA model does not only guarantee sustainable safe water access, but also leads to sustainable sanitation improvement.



TUABO14: Knowledge, attitude and willingness to participate in the national health insurance scheme among market traders in Oyingbo Market, Lagos State, Nigeria; **Adekunle Ademiluyi¹, Oluchi Kanma-Okafor¹, Princess Campbell¹ | ¹University of Lagos, Nigeria**

Introduction: Nigeria's National Health Insurance scheme decree was made known to the populace in 1999, though actual implementation of the decree started in 2002 and was launched in 2005. Since the inception of the scheme, there has been a noticeable problem of general acceptance. Out of 180 million Nigerians, less than 10 million people are benefiting from the scheme; mostly government employees. The informal sector covers a large bulk of her population and their ill-health will affect the economy as the cost of health care increases and the major set-back to healthcare accessibility is non-availability of cash at hand.

Methodology: The study was a descriptive cross-sectional study of the traders in Oyingbo market, Lagos State. Multi-stage random sampling was used to select respondents. Data were collected using self-administered questionnaires and analysis was carried out using Epi info 7 statistical software. Level of Significance was predetermined at $p \leq 0.05$.

Result: Low level of awareness was observed 23.17%. This was also accompanied with poor knowledge of the scheme 96.34% and negative/indifferent attitude towards the scheme 94.31%. However, there was a high willingness to participate 63.01%. The mean age of the respondents was 37.1 ± 9.5 .

Conclusion: The study showed that the awareness of National Health Insurance Scheme among respondents was low, the overall knowledge was poor and the overall attitude was negative/indifferent. However, the willingness to participate is encouraging.

Recommendation: The management of the scheme should try to pass information to the informal sectors in ways they can understand and comprehend what the scheme is all about. Also, how they can fit in the scheme in ways that can be monitored and evaluated properly.



TUABO15: Financial protection for mobile populations in East Africa: The case of long distance truck drivers; **Agnes Gatome-Munyua | Abt Associates, Ethiopia**

Background: Long distance truck drivers (LDTD) spend long periods on the road away from home, and are associated with risks such as abuse of alcohol and other stimulants, and high risk sexual activity.

Objectives: This study sought to understand LDTD's mobility characteristics, healthcare needs and means for paying for healthcare while on work travel, and ability and willingness to pay for portable health insurance that covers health expenses across East African countries during work travel.

Methods: USAID funded Cross-Border Health Integrated Partnerships Project conducted 361 interviews between November 2016 and February 2017 from three cross-border areas in Kenya, Rwanda, Tanzania and Uganda. LDTD were recruited while in transit at crossborder towns. Data was analyzed with STATA to generate descriptive statistics and multivariate models were used to estimate factors impacting ability and willingness to pay for portable health insurance.

Results: LDTD reported 20-30 work related trips in the past year with a median duration of 1.5 weeks. 19.1% reported using a health facility while on their most recent work trip of whom half reported expenses outside their home country. 85.5% of respondents reported paying out-of-pocket (OOP) for health expenses incurred during work travel. OOP expenses were as high as 40% of monthly income. 42.4% of respondents reported owning health insurance but only 16.3% with health insurance reported it could be used beyond their home country (portable benefits). 75% of respondents agreed portable health insurance was appropriate for them. 68% of respondents were willing to pay USD 6.2 quarterly for portable health benefits (1.7% of the lowest average monthly income).

Conclusion and recommendations: These results demonstrate that LDTD are highly mobile, require access to health services outside their home country, face high OOP costs, and are currently underserved with portable health insurance. These results can be used to design portable health insurance for East Africa's truckers.



TUABO16: Universal health coverage policy reform in Benue state, Nigeria: Expanding financial protection for the vulnerable population; **Anne Adah-Ogo¹, Nanlop Ogbureke¹, Victor Arokoyo¹ | ¹Christian Aid, Nigeria**

Issues: Inability to pay the out-of-pocket (OOP) expenditure required to access health services is seen as one of the main impediments to access healthcare particularly for the poor and vulnerable. OOP payments create financial barriers that prevent about 85% of Nigerians yearly from seeking and receiving health services. Health insurance has potential to increase health-care funding, thus improving standard of care. It also distributes the risks for catastrophic health expenditures affecting the most vulnerable population in-hard-to reach communities and may become a solidarity mechanism between the sick and healthy, between the poor and the better-off.

Description: Through the CHAIN project, potential pathway contributing to universal health coverage (UHC) was established. The project designed learning question, case studies and stories of change to identify the status of health insurance and challenges delaying take-off of health insurance. A robust assessment to identify the states' health policy direction was conducted and disseminated among stake-holders. Health financing analysis and household survey on health expenditure was conducted to contribute to reforms needed for an efficient state health insurance scheme. The project supported delegates attending the public hearing to lend their voices leading to the passage of the State Social Health Insurance Scheme (SSHIS) act 2018.

Lessons learnt: Awareness creation at community-level about the scheme, modalities, benefits and provisions should be prioritised. The need to integrate silo health insurance efforts ensuring effective implementation of the state scheme.

Next Steps: Support advocacy for the bill to be signed into law following executive assent to facilitate establishment of Benue State Health Management Agency and institute health insurance scheme to guarantee citizen's rights to quality health-care as enshrined in the National Health Act, 2014. Intensify advocacy for expansion of the health insurance laws to cover the informal sector and policy innovation that addresses access to health by vulnerable groups



TUABO17: Enhancing access to healthcare through mobile health innovations: the case of innovative partnership for universal sustainable healthcare (i-PUSH) Program; **Fidelina Ndunge¹, Edward Yano², Antony Kipkorir¹ | ¹Amref Health Africa, ²PharmAccess Foundation, Kenya**

Background: The vast majority of the people in Kenya have limited access to the basic healthcare services. Innovative Partnership for Universal Sustainable Healthcare (i-PUSH) is a partnership between Amref Health Africa and PharmAccess Foundation aiming at reducing economic barriers towards reproductive, maternal, neonatal and child health (RMNCH) services leveraging on mHealth contributing to increased financial protection for the vulnerable communities.

Description: i-PUSH is a five year (2016-2021) program targeting Women of Reproductive Age (WRAs) who are pregnant or with children under five in Nairobi, Kakamega and Samburu counties. Through Community Health Strategy, the program employs three mHealth platforms; MJali enables community health volunteers (CHVs) to collect community health data; Leap empowers CHVs with RMNCH, M-TIBA and NHIF (National Hospital Insurance Fund) knowledge and M-TIBA -health mobile wallet enables WRAs save for NHIF.

Results: Scalability: In the last 6 months (April- Sept 2018), 703 CHVs were trained through Leap who enrolled 3917 WRAs in NHIF. As knowledge transfer champions, the CHVs educated households on RMNCH messages. However, the project scale-up is dependent on the availability of mobile network coverage. Process efficiency: Through the mhealth innovations, the project has increased timeliness, accuracy and completeness in data collection, reduced use of paper work, provided convenience and reduced costs in NHIF enrollment. Accessibility: target beneficiaries are able to afford RMNCH services because they have been enrolled to NHIF and further their households are covered and can access better health services. More so, households have been given the choice to select where to access these services.

Conclusions: i-PUSH has leveraged on high mobile phone penetration in Kenya to improve RMNCH outcomes and reduce out of pocket expenditure. Hence strengthening partnerships is key to pool resources and have large scale rollout.



TUABO18: Simplifying health financing for vulnerable populations towards universal health coverage; **Jim Ouko¹, Stephen Ingabo¹, Wycliffe Omanya¹, Kate Vorley¹ | ¹Plan International, Kenya**

Issue: United States Agency for International Development (USAID) with Government of Kenya designed Nilinde, meaning “Protect Me” in Kiswahili, a five-year program ending 2020 to improve the welfare and protection of nearly 150,000 children affected by HIV/AIDS in six Counties. Nilinde builds skills of caregivers in basic financial literacy, entrepreneurship and savings towards care and protection for orphans and vulnerable children (OVC). Households affected by HIV struggle with food insecurity, healthcare access, education, asset ownership, leading to limited livelihood options and social isolation. Ill health affects household economic stability leading to vulnerability. Caregivers are forced to abandon work, deplete their savings, and dispose of household assets to settle treatment costs perpetuating the cycle of extreme poverty.

Description: Nilinde used Voluntary Loaning and Savings Associations (VSLAs) to initiate a community sensitization program on National Hospital Insurance Fund (NHIF) – a public health insurance model that provides out and inpatient medical insurance cover to immediate family members at a subscription fee. However, the subscription fee poses a financial strain to many caregivers. After enrolling into NHIF, caregivers contribute Kes. 20 daily for 25 days through VSLAs who then make a group payment on behalf of households. VSLAs have social fund component that supports other emergency needs.

Lessons learnt: Vulnerable households are more likely to make small daily contributions towards medical insurance as opposed to monthly payments. Within the program, 9,738 caregivers are enrolled and have active NHIF subscriptions covering 27,266 OVC. Group subscriptions reinforce households’ commitment to daily contributions - “Pooling together effect.”

Recommendations and Next steps: Enhance collaboration between NHIF and VSLA groups to support scale up. Advocate for NHIF systems to consider frequent payments using low denominations for vulnerable groups.



TUABO19: Accuracy of diagnosis and hematological difference among malaria patients in rural and urban areas in the Ashanti Region of Ghana; **Mutala Abdul-Hakim¹, Kingsley Badu¹, Agordzo Samuel Kekell¹ | ¹Kwame Nkrumah University of Science and Technology, Ghana**

Description: Over recent years, there has been an increase in the use of histidine rich protein 2 (HRP-2) based rapid diagnostic test in the diagnosis of malaria based rapid diagnostic test in the diagnosis of malaria. Accurate and prompt diagnosis of malaria will help reduce parasite reservoir and reduce malaria transmission. However, the under diagnosis of malaria due to the low parasite density hinders malaria eradication. The study aimed at establishing the baseline information on the Accuracy of the HRP2 based RDT used in Ghana while determining the hematological difference among malaria patients.

Methods: Cross-sectional study was conducted from January to April, 2018. A total of 304 participants were recruited in the study. Microscopy and RDT were used in the detection of malaria parasitemia in all the samples.

Results: The overall sensitivity, specificity, negative predictive value and positive predictive value was 75.9%, 95.6%, 64.7% and 97.4% respectively. The HRP-2 based RDT was highly sensitive (100%) for parasite density ≥ 250 parasite μl and relatively low for parasite density ≤ 100 parasite/ μl (50%- Kumasi, 67%- Agona and 75%- Kuntanase). On the other hand, Agona (rural) recorded the highest prevalence (15.8%) followed by Kumasi (urban) (9%) and Kuntanase (peri-urban) being the lowest (6.8%). The difference in prevalence was however not statistically significant across the three communities. The rural area also accounted for highest parasite density (mean 99.53) and lowest in urban (60.29) with a statistical difference ($p < 0.001$). The difference in white blood cell levels was significant (0.0001) across Agona, Kuntanase and Kumasi. RBC and Hb levels were however not significant.

Conclusion: The high specificity observed indicates that majority of the patients without malaria were correctly diagnosed. Notwithstanding, the sensitivity was relatively low and below the WHO standard of $\geq 95\%$ hence significant number of malaria positive cases were misdiagnosed. It is therefore important that the accuracy of RDT should be frequently assessed to improve upon its quality.



TUABO20: Impact of international classification of functioning, disability and health (ICF) in improving knowledge, attitudes and behaviour regarding interprofessional practice (IPP) among health professionals in Rwanda; **Jean Baptiste Sagahutu | University of Rwanda, Rwanda**

Background: Good collaboration between Health Professionals can reduce medical errors and assist in interpretation of health information. ICF is a potential framework to help health professionals provide common language for better collaboration. The aim of this study is to determine whether ICF can be used as a framework to promote IPP.

Methodology: A Cluster Randomised Control Trial was used. Two district hospitals were randomly allocated to receive one-day training in IPP using ICF and two hospitals as control. Participants included medical doctors, nurses, physiotherapists, social workers, nutritionists, and mental health nurses. Patients' records of discharged patients from medical, surgical and paediatric wards were also audited. The independent t-test was used to establish if the two sets of groups were equivalent before and after training. Repeated measures ANOVA and post-hoc Tukey test was done to compare the scores at baseline, two-month, four-month, and six-month.

Results: 203 participants were recruited. 1600 patients' folders were also examined. There was significant difference between Knowledge and Attitude post-intervention compared to pre-intervention ($t=22.5$; $p<.001$). The experimental group scored significantly higher ($p<.001$) after training for Attitudes scale. The audit of patients records at baseline, the mean number of items included was not significantly different between the two groups ($p=0.424$). At two-month post-intervention, the difference between the two groups was highly significant ($p<.001$). The items in which the greatest improvement was noted were related to interprofessional practice. The post-hoc Turkey test indicated the significant difference at $p<.001$ level for every post-intervention score at two, four and six months.

Conclusion: The use of the ICF as a framework for training health professionals regarding interprofessional practice resulted in a significant improvement knowledge, attitudes and behaviour as demonstrated by comprehensive patient records. It is thus recommended that the framework can be used in interprofessional education and practice in Rwanda and other similar countries.



TUABO21: Achieving respectful care through building capacity of health workers and community members; **Shiphrah Kuria¹, Brenda Mubita¹, Ronald Kapasha¹ | ¹Amref Health Africa, Kenya**

Issues Addressed: Preventable maternal deaths continue to be unacceptably high in the Copper belt province in Zambia, due to unskilled care and poor quality of services. Disrespectful, non-responsive care discourages utilization of delivery services in the facilities. The closing the gap project seeks to improve patient-centred care.

Description of the Intervention: This project is building the capacity of health workers to deliver respectful maternity care (RMC) through training and mentorship in Ndola and Kitwe districts. To date, 400 health workers have been trained. They are supported to develop and implement innovative patient-centred care within the limited resources. The community members are empowered to demand their right; quality respectful care, 160 Community health workers have been trained.

Lessons learnt: Conclusions and Implications of the Intervention. Poor understanding of the need for RMC by the health workers and the community members drive disrespect. Awareness raising and skills building are crucial to promoting RMC. Since the intervention started one year ago, health outcomes have improved steadily. Maternal mortality has dropped from 55 in 2017 to 32 in 2018, stillbirths from 27/1000 live births to 19/1000 live births and neonatal deaths decreased from 35 to 28/1000 live births. Health care workers report being confident and capable of delivering RMC. Many have written down protocols for their facilities, enhanced privacy and have improved the way they communicate with the mothers and the families. Ministry of health officials acknowledges services have improved and mothers report more satisfaction with the care. Community health workers are raising awareness of RMC

Recommendations: Lessons from ongoing data analysis will continue to enhance the services and inform intervention; the RMC training has incorporated focused skills improvement to bridge the identified gaps. Institutionalization of RMC will be advocated for.



TUABO22: Barriers to quality of care in familyplanning service in the primary healthcare level: a case of Jimma and East Wolega Zones, Oromia, Ethiopia; **Mamaru Ayenew¹, Muluken Desalegn¹, Yeshitla Hailu¹ | ¹Amref Health Africa in Ethiopia**

Introduction: Despite progressive efforts have been made in providing quality family planning services over the last decades in Ethiopia, challenges remain to provide quality family planning services. Though varies studies conducted on family planning utilization but limited evidences documented on quality of services. Therefore, this study unpacked barriers for quality of care in family planning service from client, provider and health care mangers perspectives.

Methodology: A cross sectional qualitative data collection approach was employed to explore barriers for quality family planning service. The study targeted 8 health posts, and women in the reproductive age group who were current users and non-users of RH services in particular FP services. Data were collected using focus group discussion (19 FDG) and key informant interviews (21 KIIs).

Results: The study indicates lack of a range of contraceptive method at Health Post (HP) level, lack of proper communication given to clients and adequate information about different contraceptive methods, and sociocultural factors were felt by clients as barriers for quality FP services. Whereas, service providers perceived that accessibility of service outlets, availability of limited method mix, lack of private room for service delivery, lack of strong feedback mechanism between Health Center (HC) and Health Post (HP), skill gap to provide reversible long acting family planning methods were influencing factors for quality.

The manager's perspective for barriers for quality of Family planning were: shortage in the supply of FP commodities, training materials, skill gap by providers, training and motivation of the providers.

Conclusion: The common barriers identified in providing quality family planning services from providers, managers and clients perspectives were skill gap of providers for reversible long acting methods, availability of limited method mix at HP level and interruption of FP commodities.



TUABO23: “In the group, there was something extraordinary:” women’s perceptions of group antenatal and postnatal care in Rwanda; **Sabine Musange | University of Rwanda, Rwanda**

Issue: Group antenatal care is an innovative model of care in which 8-12 women are organized by estimated due date into groups that share ANC visits throughout pregnancy and even during postnatal care (PNC). The Preterm Birth Initiative-Rwanda is conducting a 36-cluster randomized controlled trial of group ANC and PNC. In the context of this trial, qualitative data were collected among women 9 months after group care implementation. The purpose of this work was to understand women’s experiences of group care at the midpoint of the trial in order make ongoing programmatic adjustments.

Description: We convened focus groups at 6 of 18 study sites that implemented group ANC and PNC. 56 women that attended at least one group ANC visit participated in these focus groups after birth. Focus groups were conducted in Kinyarwanda and translated to English.

Lessons Learnt: According to Rwandan women who participate in group ANC and PNC, group care results in increased health knowledge, close relationships between providers and patients, and supportive friendships between pregnant peers. Focus groups participants complained that providers were called away from the group visit to attend to other services. Women reported that the main barriers to group care attendance are no time off work, not enough money to pay for facility fees required at the time of ANC visits, and little support for ANC and PNC among husbands and older women in the community.

Next Steps: Group ANC and PNC is a service delivery strategy that may improve women’s experience of pregnancy and postnatal care. In order to maximize the potential benefits of its implementation in Rwanda, group care providers should not be allocated to simultaneous services, financial barriers to attendance should be removed, and community education About group care should target husbands and older women



TUABO24: Can integrated clinical simulation trainings improve person-centered maternity care? Results from a pilot project in Ghana; **Patience Afulani¹, Raymond Aborigo², Susann Cohen³, Cheryl Moyer⁴, Dilys Walker¹, John Williams²**
| ¹University of California, San Francisco, ²Navrongo Health Research Center, Ghana, ³University of Utah, USA,
⁴University of Michigan, USA

Person-centered maternity care (PCMC) is maternity care that is responsive and respectful to women's needs and values. Despite growing recognition of the importance of PCMC to maternal and child health outcomes, few evidence-based interventions exist on how to improve it. We evaluated the effect of an integrated simulation training on provision of PCMC.

The pilot project was in a rural district in Northern Ghana. To improve quality of care including PCMC, we integrated specific components of PCMC, emphasizing Dignity and Respect (DR), Communication and Autonomy (CA) and Supportive Care (SC), into a clinical simulation training. Forty-four providers in the district participated in two two-day trainings led by PRONTO international trainers. Six providers were then trained as simulation facilitators, who led four monthly refreshers at the five highest volume delivery facilities in the district. For evaluation, we conducted surveys at baseline (N=215) and endline (N=320) with recently delivered women to assess their experiences of care using the 30-item PCMC scale.

Compared to the baseline, women in the endline were more likely to report higher PCMC. The average PCMC score increased from 52% at baseline to 71% at endline, a change of 37%. Scores on the sub-scales also increased between baseline and endline: from 76 to 81 for DR, 31 to 58 for CA and 54 to 72 for SC. The greatest increase was in communication and autonomy which increased by 87%. These differences remain significant in multilevel multivariate analysis controlling for several potential confounders and accounting for clustering at the facility level.

The findings suggest that integrated provider trainings that give providers the opportunity to learn, practice, and reflect on their provision of PCMC has the potential to improve PCMC in developing settings. Incorporating such trainings into pre-service and in-service training of providers will help advance global efforts to promote PCMC.



TUABO25: GIS Integrated mapping of correlated factors to identify cervical cancer hotspots; **Daniel Bingi | Makerere University, Uganda**

Background: Cervical cancer is a screen preventable disease, despite this fact majority of women in Uganda report to major health centres at advanced stage of the disease leading to high mortality of the disease. The analysis to determine areas to screen in Uganda lack the spatial component where high risk areas can be determined and target intervention methods applied to close the gap in screening that exist, that has led to late presentation and high mortality of the disease.

Methods: An ecological descriptive method of investigation was employed on the secondary data from the various data sources in Uganda. This study aimed at mapping the socio-economic and epidemiological factors to identify cervical hotspots. The study applied overlay analysis which combined the different socio economic and epidemiological factors basing on weights from expert and peer review opinion. The different factors maps were first mapped individually before being combined by the GIS weighted overlay analysis tool.

Results: The Central region had the highest number of districts in the very high risk zone with 12 of the 23 districts. The Northern region had the highest number of districts in low risk areas with nine of the 14, while the majority of the districts in Uganda, 61% (n=68/112) were identified as high to very high risk districts, with the Central region having the highest number of districts in this category

Conclusion: The majority of districts in Uganda are at high risk of cervical cancer infection and therefore, a wide scale distribution of screening and treatment services need to be placed to close the gap in screening that has been responsible for late presentation and high mortality of the disease, this will enable the capturing of cases early and help reduce the deaths from this preventable disease.



TUABO26: A neonatal resuscitation skills retention solution with proven impact in low resources settings; **Niels Buning | Philips, The Netherlands**

Issue: Birth asphyxia is a significant contributor to neonatal mortality resulting in up to 1.8 million stillbirths and newborn deaths annually. These deaths can be prevented by empowering birth attendants to effectively ventilate babies at birth.

Description: Programs such as Helping Babies Breathe (HBB) have been proven effective. However, HBB falls short of sustained impact because ventilation skills decay rapidly, and significantly over time. Effective ventilation for improved newborn survival requires birth attendants to both quickly achieve and maintain consistent, effective ventilation (good face-mask-seal, correct rate of ventilation and a patent airway) with minimal interruption in effective ventilation. Helping Babies Breathe (HBB) and the train-the-trainer model have managed widespread impact.

Lessons: It has been repeatedly shown that ventilation skills decay over time after initial training. Low-dose, high-frequency training has the potential to dramatically improve skill retention. Over the past four years, the Augmented Infant Resuscitation (AIR) device has been iteratively developed based on feedback from end-users and ventilation experts. The resulting solution is intuitive, which simplifies ease-of-use and adoption and complements existing training and equipment. The ease-of-use and intuitive feedback encourages “low dose, high frequency” practice and the recording function enables objective measurement of the frequency, duration and quality of ventilation practice sessions vital for quality improvement efforts. AIR improves provider skills at the critical period of birth without disrupting current workflows or equipment. Research has shown this to be an extremely cost-effective intervention. An RCT has shown that people using the AIR attain the effective state of resuscitation 51% faster and maintain it 50% longer, significantly improving the survival chances of newborns. An example of locally relevant, inclusive innovation that unlocks equitable access to affordable quality care for the underserved.



TUABO27: Modeling the impact of harmonized regulatory systems on lives saved in Eastern and Southern Africa; **Tara Herrick¹, Sarah Gannon¹, Claire Wingfield¹, Jenny Blair¹, Pauline Irungu¹ | IPATH, USA**

Background: In Africa, lack of harmonized regulatory processes is a critical barrier to timely access to essential medicines. Differing regulations across countries create delays for manufacturers, which must navigate multiple regulatory systems, resulting in slower time to availability of medicines. A recent study found that the average registration time for medicines in the East African Community (EAC) was two years and that regional regulatory harmonization accelerated this review timeline by 40% to 60%. The purpose of this study was to model the potential health impact of increasing regulatory harmonization across two regional economic communities in sub-Saharan Africa.

Methods: The Lives Saved Tool, developed by The Johns Hopkins University Bloomberg School of Public Health, was used to estimate potential lives saved in the EAC and the ZAZIBONA region between 2018 and 2023 as the result of accelerated access to two lifesaving medicines: amoxicillin dispersible tablets to treat pneumonia and heat-stable carbetocin to prevent and treat postpartum hemorrhage. Launch times two years and one year faster than the status quo were modeled, assuming that harmonized regulatory activities would accelerate the launch timeline versus non-harmonized regulation.

Results: Launching amoxicillin dispersible tablets two years or one year faster than the status quo in the EAC and ZAZIBONA could save 22,300 or 11,200 lives in children under five, respectively. Accelerating access to heat-stable carbetocin in the same regions could save 1,100 or 500 maternal lives, respectively, with a two-year or one-year faster time to launch.

Conclusions and Recommendations: Regulatory harmonization is a critical component for improving timely access to lifesaving medicines, which can significantly impact maternal and child health. Though it has received support at the highest political levels since establishment of the African Union Model Law, implementation has been slow. Further investment is needed to help countries adopt and implement harmonized regulatory systems.

Key words: Access, Regulatory harmonization, Modelling



TUABO28: An uncommon collaboration: How Chipatala Cha Pa Foni journeyed from innovation to scale; **Isaac Dambula¹, Alinafe Kasiya², Upile Kachila¹, Luciana Maxim² | ¹Ministry of Health, Malawi, ²Village Reach, Malawi**

Issue: Malawi faces a 45% health worker vacancy rate, placing a strain on health workers and facilities. Chipatala Cha Pa Foni (CCPF) - “Health Center by Phone” - is a free health and nutrition telephone hotline available for anyone to call via an Airtel phone. Clients receive personal attention from qualified nurses who are trained extensively on health-related topics in accordance with Ministry of Health guidelines. The average call duration is 15 minutes, compared to only two minutes for a consultation at a health clinic.

Description: An evaluation of the CCPF pilot phase found improvements in maternal and child health indicators like increased use of antenatal care and early initiation of breastfeeding. In 2016, a survey revealed users had high levels of trust in the information given (98%) and satisfaction (99% “very satisfied”). Preliminary results from a 2018 evaluation validate previous evidence of very high user satisfaction. In August 2017, training, clinical modules and community mobilization were added for adolescent SRH and HIV/AIDS prevention. Adolescents now represent 38% of all calls.

Lessons Learned: CCPF is in the process of transitioning from VillageReach to the Malawi Ministry of Health, with plans for full national scale-up to all twenty-eight districts of Malawi by the end of 2018. This has been made possible by the agreement with Airtel to pay for incoming calls to the hotline. When the handover is completed in 2019, CCPF will be one of the first government-run nationwide health hotlines in Africa.



TUABO29: The Effects of HIV self-testing kits in increasing uptake of male partner testing among pregnant women attending antenatal clinics in Kenya: a randomized controlled trial; **Tom Marwa¹, Sarah Karanja², Justus Osano¹, Alloys Orago¹ | ¹Kenyatta University, Kenya, ²Amref Health Africa, Kenya**

Introduction: HIV self-testing could add a new approach to scaling up HIV testing with potential of being high impact, low cost, confidential, and empowering for users.

Methodology: Pregnant women attending antenatal clinics (ANC) and their male partners were recruited in 14 clinics in Eastern and Central regions of Kenya and randomly allocated to intervention or control arms at a ratio of 1:1:1. The primary outcome of the study was male partner testing. Arm 1 received the standard of care, which involved invitation of the male partner through word of mouth, arm 2 received an improved invitation letter, and arm 3 received the same improved letter and, two self-testing kits. Analysis was done using adjusted odds ratios (aOR) at 95% confidence intervals (CI) to determine effects of HIV self-testing in increasing uptake of male partner testing.

Results: A total of 1410 women and 1033 men were recruited; 86% (1217) women were followed up and 79% (1107) complete pairs of man and woman were followed up at home. In arm 3, over 80% (327) of male partners took HIV test, compared to only 37% (133) in arm 2 and 28% (106) in arm one. There was a statistical significance between arm one and two (p value= 0.01) while arm three was statistically significant compared to arm two (p value< 0.001). Men in arm three were twelve times more likely to test compared to arm one [aOR 12.45 (95% CI 7.35, 21.08)].

Conclusion: Giving ANC mothers test kits and improved male invitation letter increased the likelihood of male partner testing by twelve times. Couple testing also increased by 80% compared to the national figure, which stands at 6%. These results demonstrate that HIV self-test kits could complement routine HIV testing methods in the general population.



TUABO30: Digital mHealth to Support Individualized and Differentiated HIV Care Models (WeTel Predict); **Richard Lester¹, Jamie Forest¹ | ¹WeTel, Canada**

Objective: Differentiated HIV care models are useful but rely on clinical indicators that may identify patients after they begin to fail. Routine digital communications between patients and provider might identify patients earlier. We hypothesized short message service (SMS) response rates can predict indicators of stability and improve outcomes.

Methods: We conducted secondary analyses of data collected on participants allocated to the intervention arms of the WeTel Retain (NIH#R01MH097558-01) and the WeTel Kenya1 (PEPFAR PHE:KE07.0045) trials. We derived three 12-month outcome variables to define participant stability: (1) >95% adherence on ART; (2) two or more clinical visits at least six months apart and, (3) viral suppression. We assessed response rates to weekly SMS checkins over 52 weeks, and compared participants in stable and unstable categories using the Mann-Whitney U-test and linear regression of response rates over time.

Results: In total, 635 participants (Retain: n=349; Kenya1: n=286) were included in this study. Participants deemed stable by adherence had a median SMS response rate of 69% (IQR: 44% to 88%) versus 33% (IQR: 10% to 75%) for unstable patients; by retention, 69% (IQR: 44% to 85%) versus 13% (IQR: 4% to 33%); and by viral suppression, 67% (IQR: 42% to 87%) versus 44% (IQR: 13% to 75%; p<0.001 for all comparisons). For each outcome, unstable participants had response rates that declined more rapidly over time, and more unpredictable response patterns.

Conclusions: SMS responsiveness to patient-provider check-ins significantly differentiated patient groups according to key indicators of stability. This novel data source can help providers proactively identify stable and unstable patients before they begin to fail therapy.



TUABO31: An abstract on targeted men engagement to improve hygiene and sanitation through latrine coverage and utilization in Samburu East Sub County, Samburu County, Kenya; **George Kimathi | Amref Health Africa, Kenya**

Back ground: In Kenya, CTLS approach is a strategy adopted by the Ministry of Health as a basis to rapidly improve national hygiene, water and sanitization. Government aims at increasing sanitation coverage especially in rural areas that face many challenges. In Samburu, this task has been socially assigned to women who are also burdened with other domestic chores. Efforts are being made to bring men on board through sensitizations because they neither assist in digging latrines nor utilize them. This has proved to be a major drawback in improving health and hygiene practices at the household level.

Objective: To sensitize men on their role in strengthening latrine construction and utilization, hygiene and sanitation services through community dialogues.

Description: The project randomly picked households within the areas of project coverage to engage men through targeted sensitizations offering an opportunity for men to appreciate the need and their role in latrine construction. Sensitizations offered an opportunity to demystify an idea that toilet construction is a gender role for women. Gender based barriers to latrine construction and utilization were addressed prompting men to develop an action plan. Results: Men took lead role in construction of latrines in five villages attributing to 100% of the targeted latrines constructed. Through men engagement, six targeted villages in Samburu East Sub County have undergone community lead total sanitization stages which include triggering, claiming, verification, certification and now awaiting to be declared open defecation free and be celebrated.

Conclusion: Targeted men involvement and gender roles clarification through community dialogue enhances latrine construction and utilization hence improved hygiene and sanitization.



TUABO32: Change in utilization of hospital healthcare services in rural Masvingo, Zimbabwe: **In search of determinants; Janneke van Dijk¹, Talent Nyandoro¹, Tatenda², Munyaradzi³ | ¹SolidarMed, Zimbabwe, ²Midland State University, ³Great Zimbabwe University, Zimbabwe**

Background: SolidarMed works alongside Ministry of Health in strengthening health service delivery in selected rural districts of Masvingo Province, Zimbabwe. Review of recorded statistics showed a notable decline in service utilization of various hospital healthcare services over recent years within these districts. Main objective of this study is to identify and understand factors that influence access and utilization of health services in Bikita and Zaka districts, and to understand the dynamics of accessing healthcare at the various existing health service delivery systems.

Methods: Data on socio-demographics, barriers to care and choice of healthcare provider were captured through quantitative and qualitative data collection, using semi-structured questionnaires and in-depth interviews. These were administered to healthcare providers (I), patients (II), patients' care-givers (III), and other relevant stakeholders (traditional leaders). Health Care Providers (HCP) were drawn from government, mission and private institutions and included faith- and traditional healers as well. Data here presented is on patient's perspective only.

Results: 66 patients (77% female) were interviewed between July and October 2018. Patients alternated between providers for their health needs, visiting on average 2.8 different HCPs/year. Only half of the patients made the final decision regarding the HCP themselves. Most commonly cited reasons for consulting a specific provider was its reputation and availability of medication and diagnostics, whereas costs involved with treatment and transport were important discouraging factors to seek healthcare services.

Conclusions and Recommendation: The study disentangled health service utilisation from a trans-disciplinary perspective. Religion, trust and out-of-pocket expenses play an important role on the user perception of quality of health care and may determine the choice of health-care provider. The knowledge gained will inform the design of interventions to improve the accessibility of healthcare services not only in rural Masvingo, but in rural Zimbabwe as a whole.



TUABO33: “Contraceptives are for adults not for girls:” Perspectives on the needs, behaviors and preferences related to contraceptive access for adolescents; **Emily Lawrence¹, Katie Reynolds¹, Lucky Gondwe¹, Caitlin Walsh¹, Barbara Singer¹, Gerrah Limbe¹, Fannie Kachale², Issac Chawinga¹, Ullandah Gondwe¹, Quipo Theu¹, Jessy Gondwe¹, Nookota Ku madzulo¹, Mustarff Komanje¹, Alinafe Kasiya¹ | ¹VillageReach, Malawi, ²Ministry of Health, Malawi**

Background: Access to reproductive health services for adolescents is critical to preventing pregnancy, HIV, and sexually transmitted infections, yet many countries struggle to connect adolescents with context-specific resources. The field lacks qualitative data to inform design of contraceptive methods and innovative ways of delivering those methods to adolescents. VillageReach conducted a study to (1) determine the contraceptive methods adolescents use and variables that alter use decisions; (2) explore the barriers adolescents face in accessing and using modern contraceptives; and (3) explore adolescent preferences for optimal contraceptive method design, access, and use.

Methods: Youth researchers were trained to conduct an exploratory sequential mixed-methods approach to assess adolescent (aged 15-19) perspectives on contraceptive use and access across three diverse districts in Malawi. Quantitative data were collected through a survey while qualitative data were collected through in-person and WhatsApp focus groups and human-centered design workshops. Purposive sampling maximized variability in participant demographics. Quantitative data were analyzed using descriptive statistics, while qualitative data were examined using a general inductive-deductive approach to thematic content analysis.

Results: Data revealed key adolescent-specific barriers to accessing and using contraceptives, including (1) health workers refusing to provide family planning (FP) services to adolescents due to their age; (2) long travel distances to health facilities; (3) lack of contraceptive services in the community; (4) lack of privacy at public health centers and hospitals; and (5) frequent stock outs.

Conclusion and Recommendations: Adolescent barriers and preferences must be considered to ensure equitable access to FP services. Future models for adolescent FP service delivery could include training and employing adolescents to provide FP services, re-designing health centers so adolescents can privately access services, offering adolescent-only service hours, and utilizing nontraditional contraceptive distribution points such as at local shops. When re-designing FP services, adolescents should be co-creators in the process to ensure the services match their needs and preferences.

TUABO34: Intermittent preventive treatment of malaria in pregnancy: coverage and factors associated with its uptake in the Bamenda Health District; **Ngwene Hycentha Diengou¹, Mbuh Salioh Mbinyui¹ | ¹Institute of Medical Reserach and Medicinal Plant studies, Cameroon**

Background: The policy for intermittent preventive treatment, states that women reporting for ANC should be given at least three doses of IPTp between the 16th and 36th weeks of pregnancy. Implementation of IPTp policy has been observed to face challenges making the targeted coverage (80%) of the third doses far from being achieved. This study aimed at investigating the coverage of IPTp and assesing the factors associated with the uptake of IPTp among women attending ANCs in the Bamenda Health District (BHD).

Methodology: A cross-sectional study was carried out where interviewer guided questionnaires were administered to 400 women in their third trimester of pregnancy (262 from the urban areas and 138 from the peri-urban areas) and 39 healthcare workers.

Results: Coverage for at least one IPTp dose in the total population was 95.9% which was similar in urban and peri urban areas. The uptake rates for 0,1, 2, and 3 doses for the urban and peri urban areas were 4.5%, 13.5 %, 26.4%, 60.1% and 3.0%, 10.9%, 26.6% and 62.5% respectively. There was no significant difference between uptake of IPTp in the urban and peri urban areas ($P = 0.314$). The women's knowledge on IPTp was associated with an increase uptake of IPTp ($P < 0.001$) with odds of ($OR = 1.21, CI = 1.065 - 1.180$). All health care providers knew the function of IPTp although 35.9% reported not receiving any training on IPTp. Among the health providers, 43.59% did not know the timing of IPTp. Of all the health care providers, 30.77% complained of drug shortages and 84.62% practised the policy of DOT.

Conclusion and Recommendation: The uptake of IPTp dose 3 is high in the BHD and this may be attributed to the high practice of DOT and women's knowledge about IPTp. It is recommended that health policies should include refresher trainings for health providers.



TUABO35: MYHEART KE mobile application: innovative ways to reach the millennials with health messages on lifestyle practices; **Ogweno Stephen^{1,2} | ¹Stowelink, Kenya, ¹Non-Communicable Diseases Alliance in Kenya (NCDAK), Kenya**

Background: Access to health care is under analysed with majority assuming the youth get to access health care services. Health has been pictured in a negative light with the youth associating health with diseases and deaths. These two factors have led to negative attitude to visit facilities thus making health inaccessible to the youth. We did a research to with the main objective of increasing access to relevant information on healthy living practices to the youth. The hypothesis we tested was, use of mobile applications increase youths' awareness on relevant healthy living practices?

Methods: The research was carried out in Kenyatta university main campus. We used cohort study design. We had a study sample of 1000 youth. We divided them to two teams, trained them on healthy living practices after which we exposed one team to Myheart Ke mobile application, which is a mobile application we developed, for 4 months (January to April 2018) we collected surveys using questionnaires at the beginning and the end of the study. After which we analyzed the data using percentage difference.

Results: Below is a summary of the results obtained Total interviewed study sample 1000 youths Initial Level of information on healthy lifestyle practises 35 % Level of awareness 3 months later in group exposed to Myheart Ke app 72% Level of awareness 3 months later on the control group 42% From percentage difference analysis it was found out that exposure to Myheart Ke app improved youths access to health care information on healthy living.

Recommendations: Technology was an important part of MyHeart Ke initiative to reach out youths on healthy living practices. Access to care especially primary preventive health care was improved through the app usage as a result this influenced us to redesign and upgrade Myheart Ke mobile app to MCure App to contain more innovative and relevant information on health and wellbeing.



TUABO36: Addressing the human resource for health enrolment challenge through community promotion in the Lake and Western Zones, Tanzania; **Anna-Grace Katembo | Amref Health Africa, Tanzania**

Issue: Nurses and midwives (NMs) have a crucial role in the provision of healthcare services. The gap of NMs staffing in the Western and Lake Zones of Tanzania is huge, 47%. Despite this, enrolment of NMs students in 20 nursing schools has declined in the recent years with an observed deficit of 66%. This is contributed by failure to meet entry qualifications, failure to pay for school fees and changed application modalities. Efforts to increase students' enrolment and consequently production of NMs to increase quality of service delivery is needed.

Description: The More and Better Midwives for Rural Tanzania is a Canadian-funded project supporting the Government of Tanzania in addressing the HRH crisis, through community promotion interventions that are gearing to increasing the enrolment in nursing schools. Ninety-six (48M, 48F) secondary school science teachers were trained as career advisors who initiated science clubs to sensitize students on studying science subjects (entry criteria). A total of 9,956 (5,400F, 4,556 M) secondary school students were reached. Through pushing bulk mobile messages, 1,335 form four leavers were sensitized to apply nursing and midwifery courses whereby 112 (36 M, 76F) students qualified and received scholarship for the nurse midwifery training.

Lessons Learnt: As we strive to increase enrolment, mobile SMS platform to sensitize and raise awareness for secondary students on the opportunities for midwifery training, have proved to be effective. It was noted that there was 10% increase of students qualifying in science subjects hence addressing the identified 66% enrolment gap.

Next Steps: Multi-sectorial interventions is needed from secondary schools entry point, issues around scholarship, entry qualifications need to be looked upon to ensure we make firm steps towards the increasing enrolment and production of skilled nurse midwives.



TUABO37: Improving public health management strengthens capacity for quality of care in Kenya; **Chelsea Matson¹, Paulah Wheeler², Erika Willacy³, Alison Yoos¹, Grace Wanjau¹ | ¹Training Programs in Epidemiology and Public Health Interventions Network, Kenya, ²Oak Ridge Institute for Science and Education, USA, ³The Centers for Disease Control and Prevention, Kenya**

Description: The 2014–2016 Ebola outbreak in West Africa underscored how a dearth of skilled managers threatens the delivery of quality health care. For example, insufficient coordination between health organizations led to disorganized systems, and inefficiencies in financial management led to challenges in transferring resources to those in need.

Methods: With this experience in mind, the Centers for Disease Control and Prevention designed Improving Public Health Management for Action (IMPACT), a workforce capacity-building program that trains highly-skilled public health managers. Launched in Kenya in 2016, the program recruits local Ministry of Health staff into one of two tracks: a six-month advanced Distinguished Fellows Program (DFP) or the Two-Year Fellowship for early career professionals.

To measure the impact of participation in the program on fellows' knowledge and skill levels, and on the local communities they serve, we conducted a mixed methods evaluation using course feedback surveys and key informant interviews. Comparing self-assessed knowledge and skill level scores on a scale of 1 (not knowledgeable or skilled) to 4 (very knowledgeable or skilled) at pre- and post-course periods, we found that Two-Year fellows' knowledge and skills increased by 1.3 points on average (1.7 pre-course to 3.2 post-course); Distinguished Fellows' knowledge and skills increased by 1.5 points (2.2 pre-course to 3.7 post-course).

Results: Findings from key informant interviews demonstrate that fellows have applied their knowledge to address local health challenges, for example: improving supply chain management through supportive supervision techniques; and identifying and targeting the location of a malaria outbreak by conducting outreach and collecting data through community health assessments. Results indicate that fellows are gaining knowledge and skills, and applying what they learn to improve the health and wellbeing of Kenyan communities.

Conclusion: By building management capacity, IMPACT improves the efficiency and effectiveness of health systems, better enabling these systems to deliver quality health services.



TUABO38: Improving managerial supervision of nurses: a case study of a Ghanaian Teaching Hospital; **Jacob Albin Korem Alhassan | University of Saskatchewan, Canada**

Description: As countries strive for the achievement of Universal Health Coverage (UHC) under Sustainable Development Goal 3.8, various efforts are being aimed at improving financial protection, services provision, and populations covered. In resource constrained settings such as Ghana, improvements in the management of human resources for health could contribute significantly to achieving UHC by improving service quality. The aim of this study was to understand the challenges faced by nurse managers in supervising subordinate nurses who constitute a large proportion of the health workforce in Ghana.

Methods: A mixed methods research methodology was used to examine the challenges associated with managerial supervision of nurses in a Ghanaian Teaching Hospital. The study began with a pilot in a smaller hospital where 5 nurse managers were interviewed, and 20 staff nurses completed a survey. The main study involved 20 nurse managers (principal senior and senior staff nurses) and 80 staff nurses. The qualitative component of the study presented here was analyzed using content and thematic analyses.

Findings: The study found various challenges faced by nurse managers in supervising subordinates and these included large numbers of staff nurses per nurse manager, insufficient training of nurse managers prior to appointment to managerial positions and significant institutional challenges in terms of coordination among various levels of management. That notwithstanding, some nurse managers pursued courses to aid their managerial duties and this helped improve the performance of their subordinate nurses.

Conclusion: Significant gaps remain in efforts to motivate, train and retain health workers in Ghana. These gaps have important implications for the achievement of UHC in contexts such as Ghana. Improvements in the capacity of health workers such nurse managers has implications not only for efficiency and quality of care but health care access for various population groups within the country.



TUABO39: A model for nurse mentorship & coaching for midwifery; **Rachel Jones | Jacaranda Health, Kenya**

Issue: In Kenya's public hospitals where most women deliver, mothers face the prospect of poor quality of care and a high risk of bad outcomes. The competence and quality of the maternity nurses that deliver their babies is crucial. Jacaranda Health has developed a unique program for midwife mentorship that ensures that mothers receive high-quality and respectful care from skilled providers at facilities. Our goal is for every midwife to be capable of an appropriate response to a complication or life-threatening situation for mother & baby.

Description: Over the last two years, Jacaranda's has piloted our Nurse Mentors model, and it has resulted in significant improvements in life-saving care. In the pilot phase 3 full-time nurse mentors supported 9 facilities, spending a 1-2 days a week for 4 months in each facility and working with maternity ward nurses to train, improve problem-solving skills, and build local "champions".

Results: In 9 months, the nurse mentors trained over 150 nurses on-site and -- unlike traditional one-off training programs -- this has resulted in sustained changes in practice. Live delivery observations of 15 deliveries showed an improvement in essential delivery skills from 68% to 100%. Importantly, these scores were sustained at 95+% after the mentors transitioned to 'light touch' visits at the facility. Teamwork and communication scores improved by 34%, and mentees were 3 times as likely to complete partographs - the most fundamental tool for monitoring pregnancy. In 2018, we expanded our mentorship program to two additional counties. Our target for 2020 is to have nurse mentors in at least 50 public hospitals. Our next challenge is to build a pipeline of mentors to meet the need across the nation.



TUABO40: “We don’t have an office. We sit under a tree”: Implementation of a Community Health Worker Programme: Lessons from a South African District; **Shehnaz Munshi¹, John Eyles¹, Shabir Moosa¹ | ¹University of the Witwatersrand, South Africa**

Background: To achieve the Sustainable Development Goals, South Africa embarked on a strategy to reengineer the Primary Healthcare (PHC) system in 2011, which included the creation of an innovative task shifting strategy called the Ward-based Community Health Workers Outreach Teams (WBOT). Each team comprises of six CHWs led by a professional nurse allocated to a geographic area to improve the delivery of and access to quality healthcare. We explored WBOT members’ and managers’ views on implementation of the policy in the Ekurhuleni district.

Methods: We conducted an in-depth qualitative evaluation consisting of five focus group discussions and 19 in-depth interviews with CHWs and team leaders/managers respectively. Using framework analysis approach, data was coded and themes drawn as per the National Implementation Research Network’s Implementation Drivers’ Framework.

Results: There were significant weaknesses underscoring the current implementation of WBOTs in the district. We found competence to perform role was compromised by poor WBOT selection and inadequate training / coaching. Weak organizational process compounded by poor planning, budgeting and rushed implementation resulted in problems with procurement of resources, precarious working conditions, payment delays and uncertainty of employment contracts. Poor communication between WBOTs and key actors, insufficient support for data management revealed leadership deficiencies at the national and implementation level, further compounded by confusion of the ownership of the program, and poor integration of WBOTs amongst staff and in the delivery of services. This affected embeddedness and acceptance in clinics and community, impacting implementation fidelity.

Conclusion: Sustainable systemic change requires clear, detailed planning guidelines, defined leadership structures, earmarked budgetary commitment, and continuous communication strategies. This study illustrates that to re-engineer PHC, to achieve the vision and values set out by the Alma Ata Declaration, and, to strengthen outreach services across essential sectors, participation of all relevant actors, with emphasis on community led governance in the policy formulation and implementation process is fundamental.



TUABO41: The health workers for all coalition, a global initiative for health workers advocacy by civil society organizations;
Jorge Vega Cardenas¹, Linda Mans¹, Amanda Banda¹ | ¹Wemos, The Netherlands

Issue: Civil society advocacy for health workers is crucial to hold governments accountable for international instruments regarding human resources for health (track 2.2)

Description: Due to the lack of finance for health systems, deficient working conditions and unbalanced migration of health workers, the Health Workers for All Coalition (HW4AllCoalition) was established during the WHO 71st World Health Assembly by the African Centre for Global Health and Social Transformation, Medicus Mundi International, Médecins Sans Frontières, and Wemos. The coalition focuses on ensuring that everyone, everywhere in the world, particularly in Africa, has access to a skilled, motivated and supported health worker within a strong and sustainable health system.

Lessons learned: The HW4AllCoalition, which represents the voices that are typically left behind, is vital to alleviate workforce shortages. With representatives from African NGOs, social movements, academic institutions, and health workers' professional associations and unions, it has already influenced the agenda on human resources for health. For instance, the coalition met with the WHO workforce department to strategize for the 3rd round of reporting on the WHO Global Code of Practice on the International Recruitment of Health Personnel. The objective is to implement an advocacy strategy to increase the number of reports by member states and relevant stakeholders. The HW4AllCoalition successfully coordinated civil society efforts on submitting the Independent Stakeholders Reporting instrument. As a result, about 15 organizations submitted reporting instruments for this round - a significant accomplishment as during the last round only one reporting instrument was submitted.

Next steps: The HW4AllCoalition will do advocacy so that governments achieve SDG target 3C: Substantially increase health financing and the recruitment, development, training, and retention of the health workforce in developing countries, especially in least developed countries and small island developing States.

Keywords: workforce, advocacy.



TUABO42: Engaging the private sector in provision of Community Health Insurance – Lesson from Kilimanjaro, Tanzania;
Heri Marwa | PharmAccess, Tanzania

Issue: Since 1996, Tanzania has been implementing Community Health Fund (CHF), a scheme targeting low income / informal sector owned. Due to number of challenges, the scheme could not manage to reach expected goals. Among others, use of only public facility contributed a failure of the scheme in the country where it is estimated 40% of rural population access health services at private facilities. To turn around the scheme, PharmAccess (PAI), a Dutch NGO has supported National Health Insurance Fund (NHIF) in Tanzania in establishment and roll out of improved Community scheme, iCHF since 2014.

Description: During the design of iCHF, it was taken into consideration that public facilities are receiving subsidy from central government in terms of drugs allocation, staff salary and 'free' buildings. The first two, account for atleast 60% of the lower facilities running costs. To enable 'low premium' collected to cover also private health facilities, reimbursement rates for public lower level facilities were calculated less by 50%. This has enabled NHIF to contract 294 facilities of which 38% are private facilities. The private facilities also comprise of four out of seven referral facilities contracted.

Lessons Learned: Enrollment have increased from 2% of general population (before iCHF) to 11%, despite threefold increase in premium per household. Currently public facilities can refer patients to private facilities without fear that patient might not have money to pay, therefore increase access to referral care for enrollees. Engaging private sector and forging meaningful PPP has a potential to increase access to care and contribute to the achievement of UHC. A success of the scheme has resulted into government to adopt the model of iCHF and procedures are underway to roll it out as a national scheme.



TUABO43: MCA champions network an innovative way of strengthening public private partnerships to ensure health financing; **Olivia Otieno¹, Faith Abala¹ | ¹Network for Adolescents and Youths of Africa (NAYA), Kenya**

Issues: Since devolution, the county government has been tasked with budget allocation especially for health, which is to be allocated at least 15% according to the Abuja declaration. A quick analysis of most county budgets reveal that most have not allocated significant resources into youth and adolescent health, reproductive health, family planning among other essential services.

Description: NAYA Kenya acknowledging the added value of public private partnerships anchored in the public private partnership framework, Members of county assembly champions network was formed in 2016, to advocate for the issues of adolescent and sexual reproductive health with regard to budgetary allocation to health , provide oversight to ensure effective and efficient utilization of public resources, develop and fast track enactment of Reproductive Health Bill, oversee implementation of respective health activities as per the respective budgets and update NAYA on relevant parliamentary proceedings that affect Reproductive health.

Lessons Learnt: Having effective partnerships with the public sectors and involving them in issues concerning sexual reproductive health and rights of young people can lead to improvement and increased health financing, Policy makers need their capacity on health issues to be built to be better advocates, young people need to be empowered to present their issues to the policy makers.

Successes: Kisumu County: increased budgetary allocation for health from 15% to 33% for financial year 2018/2019, family planning was allocated Ksh 46,167,393 in the same financial year. Implementation of community health workers bill, they are now receiving stipends. Having two youth friendly centers that meet the national guidelines on provision for youth friendly services.

Next Steps: Civil society organizations to: Continue sensitizing, training and strengthening capacity of members of county assembly within the various counties on health so as to become champions for health at the county levels, conduct public training and civic education to the citizens.



TUABO44: Does the Global Financing Facility (GFF) live up to its promises? A case study in Kenya, Uganda and Tanzania from civil society (CSO) perspective; **Renée De Jong¹, Lisa Seidelmann¹, Karen Kramer¹ | ¹Wemos Foundation, The Netherlands**

Issue: The Global Financing Facility (GFF) is an innovative financing mechanism (3.2) for Reproductive, Maternal, Newborn, Children and Adolescents Health and Nutrition (RMNCAH-N) in support of the UN strategy Every Woman Every Child. Eligible countries can receive GFF grants linked to World Bank loans, while they are also expected to increase domestic resources for RMNCAH-N.

Description: As part of the Health System Advocacy Partnership, Wemos investigated the implementation of the GFF in three early-starting countries: Kenya, Tanzania, and Uganda. The aim was to assess whether implementation of the GFF at (sub) national level reflects the objectives as outlined in the GFF principles and strategies. We specifically looked at inclusivity and transparency, and the financing model with its aim of smart, sustainable and scaled-up financing.

Lessons learned: GFF governance structures at national and global level do not sufficiently include the 1. Voices of recipient country governments and civil society. The GFF does not provide adequate financial solutions to address the health worker 2. Crisis, a main underlying cause of weak health systems. The implications of the financing model on government's fiscal space in the medium3. And long term and the risk of increasing indebtedness are insufficiently addressed. The pros and cons of leveraging the broad range of private sector actors are not well- 4. Understood or defined.

Next steps: A stronger evidence-base is needed to influence the global and national debates on the structures and functioning of the GFF. This entails active involvement of national CSOs in: (1) monitoring the implementation of GFF-funded interventions at facility and community level and; (2) engaging in informed debates with the Ministries of Health and Finance, the World Bank, the development community, and the private sector; (3) and compiling and consolidating findings into clear policy asks for the GFF.

Keywords: GFF, Health Financing, Global Health Initiatives.



TUABO45: Comparative costing analysis of Primary Health Care: PPP-PHC model vs traditional PHC model; **Alice Tarus¹, Caroline Kyalo¹, Vincent Okungu¹, Caroline Gitonga¹, Sarah Kedenge¹, Albert Orwa¹, Eddine Sarroukh¹ | ¹Philips Research Africa, Kenya**

Background: The goal of Universal Health Coverage (UHC) is to ensure access to affordable, equitable and quality health services for all by 2030 and is at the top of the global health policy agenda. While different blueprints for achieving UHC exists, there is a new emphasis on primary health care (PHC) as a viable strategy for meeting the target through public-private partnerships (PPP). Partnerships have been shown to improve efficiency, reduce costs and increase value in health care.

Aim: Philips through collaboration with the county of Kiambu in Kenya set up first of its kind PPP-PHC intervention in 2014, Community Life Centre (CLC), to address quality outcomes and efficiency of care in low-resource settings. As part of the collaboration, Kiambu County has been carrying out routine monitoring and evaluation of health indicators, revenue, expenditure and staffing with support from Philips. However, there has not been a costing analysis of the PPP-PHC model compared to a conventional county run model. Therefore, this study seeks to understand the value-add of a PPP-PHC model through comparative costing analysis of the two models.

Methods: The costing study utilised retrospective data on health service utilization, revenue and expenditure from CLC and a comparative primary health facility with similar services offering and catchment population over a 5-year period. The study utilises a combination of three costing models; ingredient, expenditure and step-down accounting. The direct and indirect cost was allocated to administrative, intermediate and medical cost centres which are then stepped down to a final medical cost.

Results: Results show throughout the years of costing review, health expenditure and facility revenue in the traditional PHC model were higher than in the PPP model. At the start, the health revenue or reimbursement to the PPP facility was more than the expenditure until late 2016 where expenditure exceeded revenues.



TUABO46: Achieving universal health coverage in Kenya through a public private partnership for primary care; a pilot project in Makueni County; **Bill Olwenda | Amref Health Africa, HQs**

Background: In July 2018, Amref, Royal Philips and Makueni County came together to explore a Public Private Partnership for enhancement of the County's primary care system. While the public sector is able to provide affordable healthcare for all, it is not able to do so in a high-quality and sustainable manner. This has shifted the burden of providing high quality primary care to the Private sector, but at a high cost, thereby locking out those who cannot afford to pay. The partnership, therefore aims to improve access to high quality primary care by all residents of Makueni County in a financially sustainable and scalable way.

Methods: While leveraging on the Primary Health Care Performance Initiative launched by World Bank, the Gates Foundation and WHO, this feasibility study tests the effects of the following interventions; state of facilities and infrastructure, equipment, Community Health Units (CHUs), Amref's M-Jali platform, clinical staffing, supply chain, governance, NHIF coverage, value-adds, training health workers, performance measurement, quality and efficiency of care.

Results: The collaboration in its first phase, has witnessed expansion of NHIF coverage, active CHU's, motivated health work force, increased patient flow, improved quality and efficiency of care, lesser patient referrals, direct health financing and improved client experience.

Conclusion: In order for Universal Health Coverage (UHC) to be a reality, trust needs to be developed by healthcare industry players in the public and private sector. This will in turn attract resources necessary for optimal functionality of the healthcare system.



TUABO47: Governing public-private partnerships to advance UHC objectives: evolution of government- private not-for-profit contractual relationships in Uganda; **Aloysius Ssenyonjo¹, Justine Namakula¹, Ronald Kasyaba², Sam Orach², Freddie Ssenyooba¹** | **¹Makerere University School of Public Health, Uganda, ²Uganda Catholic Medical Bureau, Uganda**

Background: Government – Private Not for Profit (PNFP) relations are vital to advance universal health coverage (UHC) in developing countries but face major capacity challenges such as “buy or make” decisions and capacity for relational governance systems to support mutual objectives. This study examines how Government-PNFP contractual relationships can be governed to advance UHC objectives.

Methods: This study was part of Multi-country studies commissioned by Alliance for Health Policy and Systems Research. The Case study about Uganda Catholic Medical Bureau Government relationship to support health sector development/investment plans over time. Methods included document review and 39 key informant interviews with actors at, district, facility and national level. The study utilized Principal-agency theory, new institutional economics and path dependency to explore evolutions and dynamics in the contractual relationships between government and PNFP over time.

Results: The relationship between government and PNFPs was built on pro-poor commitment of the PNFP sub-sector especially evidenced by PNFP presence in rural facilities. Consequently, PNFPs got privileged positions in health governance structures and processes providing opportunities for PNFPs to contribute directly to policy development and implementation processes. The dilemma of performance specification and monitoring, the conflict between PNFP autonomy and co-option by Government were key issues in principal-agency relationship. Mistrust over subsidies and costs were prevalent. Government officials questioned why government should subsidize the PNFP sub-sector yet it continues to charge fees for their services and substantial financial and material support from charitable organizations.

Conclusions: Governance of public-private Partnerships (PPPs) has political economy issues which can be complicated by information inadequacy. Trust and suspicions need to be managed by closer engagement of parties involved in the partnership. Clarification of expectations of partners as has been practiced under results-based financing schemes piloted across the country can enable improvement of the principal-agency relationship.



TUABO48: Innovative partnership for universal and sustainable Healthcare (i-PUSH). Improving access to RMNCH services in Nairobi, Kakamega and Samburu counties in Kenya; **Jackson safari¹, Rachel Ambalu¹, Fidelina Ndunge¹, Zaddock Okeno¹, Frasia Karua¹ | ¹Amref Health Africa**

Issue: Despite successes on economic growth, the poverty levels in Kenya remain high across the country. Kenya did not achieve MDG targets of reducing maternal deaths by three quarters and reducing under 5 deaths by two thirds. While accessing quality health care is enshrined in the constitution, data shows that approximately 37 million Kenyans cannot afford to pay for health services at public or private clinics.

Description: I-PUSH is a five- year Programme (2016-2021) launched in March 2017 and funded by Dutch Nationale Postcode Loterij. It is a partnership between Amref Health Africa and PharmAccess Foundation. The Programme aims at improving Maternal and Child health outcomes by use of mobile innovations. The Programme aims to achieve its objective through capacity building of Community Healthcare Workers (CHWs) using a mobile learning platform-LEAP, CHWs collecting data using a mobile application (M-JALi) and connect beneficiaries to healthcare financing through a mobile wallet-M-TIBA. The test phase of this project was carried out at Dagoretti sub-county in Nairobi County between October 2016 and March 2017.

Lessons learnt

Providing trainings and collecting data through use of mobile learning was very effective and efficient. The CHWs required constant follow ups and reminders to be able to complete all the topics of study and mapping of households. The number of women who saved money for healthcare surpassed the initial set target thus indicating a positive attitude to use a mobile wallet for healthcare financing. The savings led to increase in uptake of RMNCH services in the enrolled facilities.

Recommendations: Mobile learning and data collection using LEAP and M-JALi for CHWs should be adopted and scaled up with comprehensive training and close supervision. Saving for healthcare through a mobile wallet should be adopted and connected with the National Hospital Insurance Fund owing to the many facilities it covers.



TUABO49: Ensure sustainability of community insurance scheme through digitalization of scheme administration; **Heri Marwa | PharmAccess, Tanzania**

PharmAccess, a Dutch NGO has supported NHIF in Tanzania in establishment and roll out of Community scheme, iCHF since 2014. After successful roll out and administration of the scheme in two regions, government have adopted the model and now plan for roll out in the whole country are ongoing. It is known that key feature for sustainability of any micro (health) insurance scheme is to maintaining efficiency and lower administration costs. To ensure efficiency and reduction of administration costs in the scheme management, PharmAccess is now piloting using a digital platform for scheme administration. The platform enables administration work for the scheme to be done using mobile phone. On the demand side, the platform which can be accessed using USSD code is used for enrollment of member.

On supply side, a client usually initiate a claim, then a provider will use provider interphase for identifying insured members, manage insured limits, identify list of excluded services and process a claim. Real time data are collected and claim approval are done on individual basis, therefore enable follow up on use of national standard treatment guideline. A peculiar feature of the platform is the ability to enable a member to have a ring fenced wallet for healthcare, which can be used to pay for services excluded from benefit package. The wallet also allow donor funded services or government fund to reach individual directly in his / her mobile phone without additional administration costs.

The platform put patient at the center of health transaction as s/he has to approve and close the bill at facility and at the end receive sms to inform how much has been spent during that particular visit.



TUABO50: Lessons learnt from enrollment of households into the National Health Insurance Fund by Community health volunteers in Makadara Sub-County, Nairobi; **Susan Kivondo¹, Judy Gichuki¹ | ¹Primary health care, Nairobi County Government, Kenya**

Issue: More than a third of Kenyans rely on out of pocket payment for health at the point of service. This can increase the household financial burden leading to avoidance of necessary care or delay in seeking care if the cost of health care exceeds the ability to pay for the healthcare services. Community health volunteers (CHVs) can serve as a crucial link in enhancing universal health coverage through their involvement in enrollment of households into national health insurance schemes as they are in constant contact with the community and are trusted members of the community.

Description: Three hundred and fifty CHVs were recruited, trained and equipped with mobile phones that were used to enroll community members into the national health insurance fund (NHIF). CHVs were motivated to recruit through incentives provided for each household that was recruited. The CHVs were able to recruit 3118 households over a period of 3 months.

Lessons learnt: CHVs can function as health insurance scheme recruitment agents and assist to create awareness on health insurance schemes. This can aid in demand creation for enrolment into health insurance schemes leading ultimately to a reduction in financial barriers to health care utilization. Sensitization through CHVs can empower the community with knowledge on the importance of saving towards payment of monthly health insurance costs therefore minimizing on the need to rely on out pocket payments for health care.

Next steps

Community follow up of the enrolled households during the routine household visits to ensure that the community members actively pay their monthly NHIF contributions. Enhance the sustainability of the project through employment of the CHVs by NHIF as recruitment agents and provision of incentives to the best performing CHVs.



TUAB051: Improving efficiencies through electronic cash transfers to reduce catastrophic costs among Drug Resistant TB patients in Kenya; **Anne Munene¹, Tabitha Abongo¹, Titus Kiptai¹, Eunice Omesa¹, Benson Ulo¹ | ¹Amref Health Africa, Kenya, ¹National Tuberculosis, Leprosy and Lung Disease Program, Kenya**

Issue: World Health Organization End TB Strategy targets to reduce TB-affected families facing catastrophic costs due to TB to 0% by 2020. With Global Fund support, the National Tuberculosis program (NTP) in Kenya provides social support through cash transfers of USD2 per day to Drug-Resistant TB (DR-TB) patients and Health Care Workers (HCWs) offering community-based DOT services to them. This is done through Amref Health Africa, the non-state Principal Recipient. From October 2015 to July 2016, cash was transferred to patients indicated as 'Not Completed' in the electronic web-based register, TIBU and HCWs listed separately. This system had high error risk, did not track the approval process or allow quick generation of reports.

Description: From August 2016, cash transfers were transitioned to TIBU Cash, a web-based payment system linked to TIBU register and integrated with Amref's Mpesa platform. Sub-County TB and Leprosy Coordinators made requests that were verified and approved by County TB and Leprosy Coordinators and NTP. Amref verified the requests against TIBU register and Mpesa registration details. Payments were effected directly to mobile phones of multiple beneficiaries or their nominees at the click of a button. The system kept records of all requests and transactions and allowed generation of various reports.

Lessons Learnt: Through the new system, proportion of patients not paid timely due to incorrect details reduced from 20% to 5%. Risk of erroneously paying patients who had completed treatment but outcomes not updated reduced from 9% to 2%. User experience was used to improve the system further, allowing quick identification and correction of any errors. The system enabled users to track each request from initiation to payment and identify and address points of delay or inaccuracies. Digital cash transfer programs for TB patients improve efficiency and minimize error and can be adapted for use in other settings.



TUABO52: Leveraging technology to transforming social behavior change among community health volunteers **Edward Kubai¹, Ziporah Mugwanga¹ | ¹Marie Stopes, Kenya**

Issue: Demand generation and community acceptance is one of the interventions used in sexual and reproductive health (SRH) programming to increase access to and use of modern contraceptives. Community health volunteers (CHVs) bridge the gaps in healthcare delivery in rural communities, and among marginalized population groups, and thus support the delivery of health programmes.

Description: In March 2017, Marie Stopes Kenya (MSK) initiated a multi-component project with demand and supply side elements to encourage adolescent uptake of SRH services. The project is known as 'In Their Hands' (ITH). The overall goal of the project is to ensure that Kenyan adolescent girls have self-efficacy and urgency to choose when they get pregnant. The project works with CHVs who mobilize and enroll adolescents on a digital platform that allows them to access SRH services in selected service delivery points. The ITH project employs an ecosystem development approach alongside MSK's market development approach to respond to adolescents' SRH needs. MSK CHVs, enrolled a total of 642 adolescents into the platform in 2017 and 12,488 in 2018 (up to September). Of the girls enrolled by CHVs into the platform, 80% of the girls have visited a service provider for service uptake.

Lessons Learnt: Community-based health programs using volunteers should focus on strengthening support systems on improving links with the health structure while reinforcing effort recognition, status, and acquisition of new skills. Demand creation, and awareness creation of sexual reproductive health services through digital platforms among CHVs works in driving adolescents to access SRH services. The provision of incentives to the CHVs through a reward system works well as a motivating factor to reach out to the adolescents with information on SRH services and subsequent service uptake.



TUABO53: The innovative health exchange platform M-TIBA can help leapfrog access to better care; **Nicole Spieker¹, Kees van Lede¹, Rianne van Doeveren¹, Millicent Olulo¹, Aarthi Narayanaswamy¹, Steve Maina¹ | ¹PharmAccess Foundation, Kenya**

Introduction: Across the globe, we are witnessing how technological innovation- also called the fourth industrial revolution- is disrupting virtually every industry. There has been exponential decrease in costs of computing and billions of people are now connected by mobile devices. The vision of the PharmAccess Group is a world where everybody is connected to affordable healthcare through mobile technology, and to support the development and fast tracking of UHC (Universal Health Coverage) in Kenya. Combining the opportunities of digital technology, M-TIBA, in partnership with CarePay, with access to loans (through the Medical Credit Fund) and better quality (through SafeCare).

Methods: CarePay Ltd. and Safaricom developed M-TIBA: a mobile health wallet with entitlements to exchange for care at connected clinics. This connects the provider, patient and payers of healthcare ranging from governments, insurance companies and donors. A participant can use the mobile wallet to access healthcare services, the IT system that manages the transactions collects financial and medical data in real time, boosting efficiency and providing transparency on costs of care, utilization, increasing health access coverage and quality. We have connected more than 500 healthcare providers and more than one million people in Kenya to the mobile health platform. In Kenya, 2 counties are already using the M-TIBA platform to fast-track registrations, payments and retention for UHC.

Conclusions: Digital technology support integrated care for all patients in a population effectively. 2) Funding can be pooled efficiently between horizontal and vertical funds; and stimulate copayments and savings from participations thus stimulating sustainable and transparent care payments. And 3) Quality and accountability can be ensured using data and digital tools including M-TIBA, creating a trusted environment for all stakeholders.



TUABO54: Universal health coverage: use of M-Jali for targeting for health insurance, Laikipia County Kenya.; **Donald Mogoï¹, Frasia Karua² | ¹Ministry of Health, Kenya, ²Amref Enterprises Limited, Kenya**

Issue: As part of the 2017-2022 agenda, the County Government of Laikipia launched a programme to achieve Universal Health Coverage by scaling up health insurance registration, improving service delivery in health facilities and linking communities and health service providers in a way that ensures quality health services and financial protection for all county citizens.

Intervention: Through mobilisation of community health workers (CHWs) to create awareness, map households, collect data on Social Economic Status, conduct a survey on Knowledge Attitudes and Practice on Health insurance and register for National Hospital Insurance Fund with use of M-Jali Platform. Mapping out poverty levels and establishing members of the community who are unable to pay the standard \$ 5 NHIF premium to put them on the national insurance cover.

Data that comprised of 90,052 Households was then analyzed through use of Multiple Correspondence Analysis(MCA), through use of proxy indicators for ability to pay for health insurance, leading to clustering of households into two categories representing the Poor (20%) Unable to Pay and non-Poor Households (80%) able to Pay.

Lessons learnt: Use of Community Health Workers is a cost effective (costs Kshs 30-35), Sustainable Marketing means for Enrolment into Health Insurance. Use of Technology (M-Jali, Door to door Enrolment helps remove barriers to enrolment). Partnering with Mobile Money Platforms to make it easy to pay increases conversion to use of Health insurance. The Poor who earn less than Kshs 5,000 are more receptive to NHIF enrollment. Possibly due to vulnerability to Financial hardships associated with ill health. Subsidy Must be targeted to the deserving based on scientifically analyzed data. Secondly it should be accompanied with economic empowerment to the targeted households.

Next Steps: Encourage 80% of the households who are able to pay for NHIF to pay and sustain it. Targeted subsidy for the 20% who are unable to pay and enroll them into economic empowerment programs.



Lightning Oral Presentations

TUABLO01: Contraceptive non-use and discontinuation among women: The persistent negative perceptions on family planning among women in Western Kenya; **Athero Sherine¹, Mutua M¹, Joshua amo-adjei² | ¹African Population and Health Research Center, Kenya, ²University of Cape Coast, Ghana**

Background: Myths and misconceptions are cited among common barriers to modern contraception in developing countries. More profound effects are in rural areas. Even with an overall improvement in modern contraceptive uptake nationally, rural communities still lag behind, with certain community beliefs and traditions around family planning continually influencing contraceptive decisions making.

Methods: A qualitative study conducted in Siaya and Busia counties of Western Kenya, using a cross-sectional study design, drew a purposive sample of women and men of reproductive age (15-59 years) and sought to gain deeper insights into their experiences with contraceptives and contraceptive programs in their communities. 182 IDIs and 20 FGDs were conducted. A thematic analysis of participants' views was done.

Results: Survey participants expressed divergent views. Men hold strong views on their autonomy to determine their spouse's contraceptive use, regardless of their spouse's opinion. Men viewed women's right to decide on contraception use as a loss of their control over family matters and a disgrace to their cultural practices among highly patriarchal societies. Additionally, women using contraceptives were labeled as ill-intentioned and their actions associated with immorality. Preference for male children emerged. Men restricted their spouses' contraceptives use until they could bear a son. Others married additional wives in order to get sons. Consequently, men created "competition" among co-wives in a bid to pressure them to have many children till when they got a male child.

Conclusion: Western Kenya communities have deeply rooted beliefs and customs which greatly impact on individual's decisions to use modern contraceptives. In these highly patriarchal societies, women are viewed as objects of childbirth. Men consider their spouse's independence in contraceptive decision-making demeaning to their masculinity.

Recommendation: Contraception program implementers, especially in rural settings should work in collaboration with local community leaders and government officials in designing comprehensive strategies which first deconstruct such contraception myths and misconceptions.

TUABLO02: Unconsummated marriage as a reason for divorce-Its prevention; **Satyanarayana Reddy Alla | Vinayaka**
Missions University, India

Background: In sexually conservative societies like India and Islamic countries, unconsummated marriages (UCM) is a serious problem. It is a medical, psychological, relational, family and social problem. UCM results in shame, family disputes and divorces. The objective of the study is to assess the medical, psychological, relational and social issues of UCMs and to find out the ways to tackle it. Preventing a divorce in a newlywed couple is the ultimate target.

Methods: This is a retrospective study done in Hyderabad, India. 354 UCMs were attended to during 2012-2018 and their records were accessed for the study. The couples were interviewed and investigated to identify the cause of UCM. Treatment instituted and the results are presented here.

Results: Of the 354 subjects, 32 men attended after divorce. 54(18%) had a pre existing diseases. In 85(24%) couples an organic medical disease was identified for UCM. In 229(76%), there was no medical reason for their sex problem. Situations, lack of comfort, inexperience and performance anxiety were the reasons, the last one being predominantly seen in > 75% of men. In 6% of UCM vaginismus is the sole or contributory cause. In 21% of UCM the male had a medical disease. In the medical reasons of UCM in men, 35% is accounted by Pre mature ejaculation antepostas, 28% by organic erectile dysfunction, and the remaining by other reasons. The treatment schedules adopted are –assurance and simple techniques; specific medical treatment; sex education and counselling the couple; sex therapy; counselling the families. 28% came, discussed the problem and left. 72% underwent investigations and treatment was advised. 43% followed till a logical conclusion with 86% success. 29% didn't return for follow up.

Conclusion: In many of the UCMs, the man is looked down, couple relationship deteriorates, the families quarrel and divorce is the dreaded end. If all the UCMs are brought for treatment and are followed up, 86% of couples can live happily and 80% of divorces can be avoided



TUABLO03: Pathways and innovations for norm and attitudinal change among pastoral communities: a case of the Samburu, Borana, Rendille and Gabra Communities in Samburu and Marsabit Counties; **Viola J. Rutto | Amref Health Africa, Kenya**

Background: To accelerate efforts to end Female Genital Mutilation/Cutting (FGM/C) and Child Early and Forced Marriage (CEFM), game changer innovations need to be applied. Koota Injena Project funded by USAID has engaged clan elders influential to abandonment of FGM/C and CEFM, and promoting value of the girl among Samburus, Boranas, Rendilles and Gabras. Clan mapping was conducted as a pathway and innovation for learning and understanding targeted pastoral communities' to enable development of high impact strategies to result in norm and attitudinal change. Study objectives were: to describe the target communities' clan structure and decision making mechanisms; ascertain position of women, girls and male youth in decision making structure and; understand position of elders, women and youth on FGM/C, CEFM and value of the girl.

Methods: Descriptive exploratory research design was adopted and a gender analytic approach applied. Data was collected through interviews administered to 63 influential individuals: 40 clan elders, 10 women, 9 male and 4 female youth. Local Administrators were key Informants.

Results: The four communities have different hierarchically structured leadership: Gabras are governed by YAA council of elders, Samburus follow age sets, Rendilles consider married men as clan elders included in decision making and Boranas highest cultural leader is Aba Gada. Structured dialogue is a key intervention commencing from lower leadership as entry levels to reach top most leader(s). Women and girls hold no leadership positions but great influencers in perpetuating the harmful cultural practices. Male youth are influential to an extent in decision making among Rendilles and Samburus.

Conclusion: For successful implementation of norm and attitudinal change towards FGM/C and CEFM, reaching the top most clan elders' needs to be the ultimate purpose of interventions. Their word is law and their command is not questioned by community members.

Key words: Clans, elders, gender, FGM/C, CEFM, attitudinal/norm change



TUABLO04: Accelerating SRHR program uptake among young people 10-24 years through partnership: a case of Butere Sub County, Kakamega County; **Kevin Oria | Tropical Institute of Community Health and Development (TICH), Kenya**

Background: Young people in Kenya are vulnerable to sexual abuse and violence caused by lack of correct and comprehensive information on key Sexual Reproductive Health and Rights (SRHR) issues; and barriers in accessing SRH services; (SRHR Alliance, 2014). This study sought to examine effect of partnership on uptake of SRHR program among young people ages 10-24 in 11 CHUs of Butere, Kakamega County. Tis intervention seeks to address the restrictions at societal, institutions and political level that reinforce taboos on young people leading to SRHR issues.

Methods: TICH target to empower young people to realize their SRHR in the societies that are positive towards young people's sexuality. Key processes included: empowering young people to voice their right, utilize information and services, networking and meaningful youth participation in SRHR planning and implementation.

Results: Effective entry resulted in overwhelming commitment by stakeholder to ensure young people access SRHR services and information, with 12 meetings and MOUs both at community, Sub County and county levels. 115 young people in 11 sublocation groups developed SRHR plans. 3 youth groups having joint strategizing with their link health facility on SRHR implementation plan. Three community dialogue sessions on SRHR have been conducted. Several categories of young people are including: out of school, in school (primary, secondary and tertiary), teenage pregnancy, young parents, drugs addicts, orphans, early marriage. Preliminary result of this intervention demonstrate that partnership accelerates speed of SRHR program uptake among young people aged 10-24 years. And partnership is enhanced through effective entry process that recognizes all key stakeholders to an intervention.

Conclusion/ Recommendation: Partnership is not only a mobilizing strategy for stakeholders' commitment but it also reinforces operationalization of the five key principles; Right based approach, Inclusivity, Multi Component Approach, Gender-Transformative and Sustainability in the implementation of SRHR program.



TUABLO05: Optimizing HIV treatment for adolescents: A case study of implementation of OTZ (Operation Triple Zero) in a high volume urban facility in Western Kenya; | Irene Diana Odhiambo¹, Stella Odhiambo², Dennis Osiemo¹ | ¹PATH, Kenya, ²Ministry of Health, Kenya

Background: In 2016 it was estimated that approximately 133,000 adolescents were living with HIV in Kenya. Adolescents and young people (15– 24 years of age) account for almost half of new infections in Kenya. Similar to other programs, adolescents living with HIV have not been actively engaged in finding solutions for their health problems. As a result, there are minimal gains realized with interventions designed for adolescents. Operation triple Zero is one of the innovative approaches that have been implemented in an effort to improve and optimize treatment outcomes among adolescents. It's a NASCOP-led initiative equipping children and young adults aged 10–24 living with HIV to take charge of their own treatment and commit to the “triple zero outcomes” – zero missed appointments, zero missed drugs and zero viral load.

Methodology: HIV positive adolescents between 10–19 years were enrolled in OTZ after a sensitization of the concept was done to the clinic staff in the comprehensive care clinic in Migosi Sub County Hospital, Kisumu County. A total of 42 adolescents were enrolled in December 2017 after obtaining consent from them with 22 of them 10–14 yrs while 20 were 15–19 yrs. 27 were female. At enrollment the baseline viral load suppression of eligible clients was 74% with a retention rate of 82%. During the 7-month period post enrollment, the viral load suppression rate improved to 88% with a retention rate of 90%.

Conclusion: OTZ ensures positive living and planning for the future looking at empowering the youth not to give up on life through development of individual health plans for each adolescent.

Further recommendation to include hold focused group discussions with youth to understand what is good for them and linkage to peer mentors.



TUABLO06: Tuberculosis and the spine: moving to the understanding of the burden at Kigali University Teaching Hospital;
Ntambara Kanyangira Nelson | Kigali University Teaching Hospital, Rwanda;

Background: Pott's disease affects 20% of all TB cases worldwide, accounts a half of all skeletal tuberculosis, and HIV/AIDS remains the major accelerator globally. However, no research was done before in our region. This study aimed to understand its prevalence, clinical manifestations and outcome among patients treated at Kigali University Teaching Hospital (KUTH).

Methods: This was a case series study from Jan 2011- Jan2016. Data were collected from patients' files in the archive department and analysis was done using SPSSv23.

Results: In total, 22 patients were included. Male to female ratio of 11:1. Only 18.2% of all patients were institutionalized. Risk factors were previous TB in 47.8%, HIV in 34.8%, diabetes mellitus in 13% and malnutrition in 4.3%. All our patients presented with back pain associated with limbs' weakness at 59%, spinal deformity and paraplegia at 36.6%. The average hospital stay was 32 days. Only 31.82% recovered completely without any complication or sequelae, 50% recovered with sequelae, 13.64% died in the hospital while 4.5% developed complications during hospitalization but recovered.

Conclusion: Pott's disease was more prevalent in patients with previous history of TB infection and HIV patients. Proper treatment and adherence to every new tuberculosis case should be put in place. Back pain was the single reliable symptoms and sequelae were more common. Awareness and screening among groups prone to the diseases is recommended as well as further research to improve outcome.

Key words: Pott's disease, Tuberculosis, KUTH, Retrospective, HIV Positive, institutionalized, non-institutionalized



TUABLO07: Impact of medical adherence clubs on viral suppression and retention to care among HIV positive clients in comparison to standard client follow up: a case study of Kibera Slum; **Irene Naisenya | Amref Health Africa, Kenya**

Background: Globally, PLHIV is 36.7million. Kenya HIV prevalence is 1.6million (5.6%) and Nairobi 7%. Retention after months on ART is 81% and viral suppression was 88 % and Nairobi county 87%.

The purpose of this study was to compare viral load suppression and retention for clients on Medical adherence clubs (MACs) and standard routine follow up. MACs is a form of differentiated care model for HIV treatment service delivery to manage stable clients on ART. It is client centered, facility based, peer lead approach that involves recruitment of stable HIV clients whom have been on routine follow up for more than 1 year on ART, good adherence, viral suppressed and do not need frequent clinical reviews. MACs clients receive once a year clinical consultation, attend quarterly appointments, weight and blood pressure checks are done, adherence support and receive pre-packed drugs. By the end of May 2018 we had 37 MACs, each with an average of 20 clients.

Methods: A Retrospective comparative study from May 2017-May 2018 done in Kibera South Health Center (KSHC) with the target population was all HIV positive clients on ART. Purposive sampling with sample size of 3,824 clients. KSHC is an Outpatient facility that is facing the challenges of heavy work load, long patient waiting time and struggling to support an increasing population of patients who are enrolled into ART Care. Descriptive data analysis was used.

Results: Total clients on ART was 3824. Standard care 2978 with viral suppression of 90.7% (2702) and 94% retention. MACS had 846 clients, viral suppression of 99.5% and 100% retention.

Conclusion: MACs is an innovative approach to improve retention and HIV viral suppression, ease burden on health systems in terms of reduced workload, shortened clients waiting time and can provide sustainable solutions for quality care that is cost effective among resource limited settings.



TUABLO08: Active follow up and early interventions of clients with suspected treatment failure: a case in Kibera Reach 90 Project; **Michael Kimuyu | Amref health Africa, Kenya**

Background: In 2016 the National AIDS and STI Control Programme (NASCOP) released guidelines on the use of Antiretroviral (ARV) drugs for treating HIV infections in Kenya, adherence and management of detectable viral load (VL) was incorporated however faced with challenges of weak monitoring systems. Kibera Reach 90 project has been supporting Langata Sub County in provision of quality HIV services since 2003, currently the project is supporting 9 facilities with a total of 12,120 clients on ART. This study demonstrates how active monitoring, prompt intervention and comprehensive adherence support to clients with suspected treatment failure can lead to improved health outcomes.

Methods: A retrospective study of clients with Viral load (VL) >1000, Line list of these clients is developed and a baseline analysis is done for clients on the process of management before May 2017, root cause analysis (RCA)/gap identification are done and establish counter measures from October 2017–June 2018 were included. In July 2018, the data was analyzed focusing on; Adherence Barrier identification, EACs completion, repeat VL, regimen switch and outcomes in terms of re-suppression rates, switch and attrition.

Results: Post intervention outcomes were much far better compared to pre intervention phase. Enhanced adherence counselling completion increased to 95% from 57% and the completion period reduced to 2 months from 6 months. Second VL uptake increased to 80% from 61%. Clients switched to second line regimen raised to 74% from 57%. Attrition reduced to 1% compared to 13% in pre intervention phase.

Conclusion: Development of a common data collection tool (Vereamic register) to support the entire cascade of management, Multi-disciplinary team approach, harmonized counselling and clinical appointments, staff capacity building, flagging of detectable VL files, designing detectable VL flow chart and prompt action along the cascade are pivotal in getting better health outcomes to clients with suspected treatment failure.



TUABLO09: Using quality improvement approach improves viral resuppression among clients with high viral load in resource limited setting in Kenya; **Walter Kibet Kiptirim | Amref Health Africa, Kenya**

Issue: Over 1.6 million Kenyans are on Highly Active Antiretroviral Therapy (HAART). Viral load (VL) monitoring is a quality approach to effective HIV management. Amref through the Kibera Reach 90 project, has pioneered HIV treatment since 2003 in Kibera slums. By end of March 2018, over 11,724 clients were on HAART across 9 Amref-supported health facilities. Viral load suppression success are affected by poor (ART) adherence, worsened by inadequate ART adherence counseling monitoring tools resulting in low VL re-suppression rate among clients with VL>1000 copies/ml. We sought to demonstrate how CQI strategies can improve timely enhanced adherence counseling (EAC) completion and achieve viral resuppression among clients with VL>1000 copies/ml.

Description: Project data on clients with VL>1000copies/ml from Viremia registers in 9 Amref-supported-facilities where barriers to ART adherence, 1st and 2nd VL documented and clients counselled by dedicated adherence counsellors supported by viral load champions and peer educators as adherence supporters. Community health volunteers (CHVs) offer health talks during Viremia clinic days, and facilitate psychosocial support groups. Health workers were mentored on multidisciplinary team case discussions. Data was analyzed using SPSS version 22

Lessons learnt: As of March 2018, of the 11,724 clients on ART, 735(6%) had VL>1000 copies/ml of whom 535(73%) completed EACs and 463(87%) had 2nd VL results. Viral resuppression 185(40%) compared to 60(15%) in June 2017.

Next steps: Timely EACs Completion with 2nd VL repeat results improves viral resuppression. Strengthening Adherence using viremia register improves VL monitoring and should be scaled-up in Kenya. Further studies on how to address barriers to ART adherence is recommended.



TUABLO10: Missed appointments and nonsuppression among children and adolescents on HIV Care at Beacon of Hope Health Centre in Kajiado, Kenya; **Maria Tororey¹, Beline Ndwarwa¹, Anne Kerubo¹, Denis Wanyama¹, Sarah Karanja¹**
¹Amref Health Africa, Kenya

Background: According to the 2016 Kenya AIDS Progress Report, 6,613 children (0-14years) and 71,034 adults (>15years) got newly infected in 2015. 51% (35,776) of the new infections were in the youth (15-24years). HIV related mortality among children was 5,004. To achieve viral suppression, strict adherence to ART is important. The objective of this study is to identify the common reasons for missed appointments among children living with HIV.

Methods: In August 2017, a retrospective study was done to identify the characteristics of the children who had not achieved suppression. Medical records of 126 children who had been on ART for >6 months were reviewed. Data on patients' demographic characteristics, viral load information, caregiver information and adherence information was collected and analyzed descriptively.

Results: Out of 126 children, 41 (32%) had detectable viral load of >1000cps/ml. Of these, 51% (21) were male while 49% (20) were female. Children (0-9years) were 44% (18) while the adolescents were 56% (23). About 50% (21) had their mothers as primary caregivers, 10% (4) had their fathers while 40% (16) were being supported by other guardians/ relatives. Only 17% (7) of all who missed their appointments were in boarding schools. Of all the 41 children and adolescents, 59% (24) had history of missed appointments with 33% (8) having missed 1 day, 38% (9) missed 2-4 days, 10% had missed >4 days. The most common reasons for missing appointments were caregiver related at 54% (13) and these included unavailable caregivers, travel, family disputes and confusion of dates. Among the remaining 46% (11), reasons ranged from unsupportive school schedules, transport related challenges and misplaced appointment cards.

Conclusion: Most of the reasons for missed appointments were caregiver related. Children, adolescents and their caregivers need holistic support inclusive of caregiver education and child empowerment to overcome challenges to adherence.



TUABLOI1: Cultural beliefs associated with congenital cataract; a case of a family who attended an eye camp at Kalongo hospital July 2018; **Brenda Kituuma¹, Emmanuel Ebitu¹ | ¹Amref Health Africa, Uganda**

Background: Congenital cataract refers to cataract present at the time of birth, but it may or may not be clinically obvious at birth but will present within the first year of life. It estimated globally that 15 to 20% of the blindness in children is due to congenital cataract. In Sub Saharan Africa, the prevalence of blindness in children is estimated at about 0.2-0.8/1000 children.

Description: Through counseling and reassurances from the ophthalmic surgeon, the family consented for two children to be operated. The four children were all successful operated on and had restored vision on the day of discharge. Ms Aringo Margaret, a resident of Bungu village, Kubwoni parish, Kalongo Sub County, Agago district, has a family of six members comprising of four children. Ms. Aringo, who has history of congenital cataract, transmitted the condition to all her four children, namely; Akem Sharon 10 years; Komakech Stephen 8 years; Aciro Anjuketta 6 years and Laker Flavia 3 years. Over the past several years, Ms Aringo was reluctant to seek treatment for her children due to the family traditional beliefs that the blindness in the children was as a result of witch craft.

The family beliefs of associating cataract to witch craft vanished, as remarked by the mother of the children, Aringo “please take similar services to families that may be facing similar situations”

Lessons Learnt: There exists myth about congenital cataract particularly in children within individuals, families and members of the communities. There may therefore be many more children within the communities who have not sought treatment due to the cultural myths.

Key words: Cultural beliefs, Cataract



TUABLO12: Improving access to family planning services through male involvement in Kisoro district; **Tom Kulumba¹, Brenda Kituuma¹ | ¹Amref Health Africa, Uganda**

Description: Inadequate male partner involvement is major hindrance towards achievement of the Sustainable Development Goals; 3 and 5. Contraceptive prevalence among married women is 39%; 35% modern methods; 4% traditional methods. Unmet need for FP among married women is 28%. Demand for family planning among married women is 67%; 58% of the demand is being met. Unmet need among sexually active unmarried women is 32%. T

he FP2020 goal seeks to reduce the unmet need from 40% to 10% by 2022. The Health Systems Advocacy Project aims to improve health services delivery with emphasis on streamlining Sexual and Reproductive Health and Rights (SRHR) service with focus on financing for family planning commodities to help harness the demographic dividend. Male partner involvement is very low (7 %) and yet they are the major decision makers in attaining high FP rates.

To improve male involvement in FP, sensitization was done in all major service points within the health facilities including the OPD, maternity, antenatal, youth corners and ART clinics. Males were educated on the benefits of escorting their wives for FP services. In addition, male champions were engaged to mobilize other males to escort their wives for FP services.

Lessons: Male involvement in FP over the past three years has significantly increased in Kisoro district. This has contributed to the reduction in the unmet need for family planning that is aimed 10% from 40% according the district health annual report. Male involvement in FP therefore contributes in increasing uptake thus lowering the unmet needs for family planning in the society.

Key words: Family planning, male involvement



TUABLO13: Barriers experienced by Fistula survivors in implementation of post-operative instructions; **Patrick Kagurusi¹, Joel Fred Nsumba¹, Francis Olok¹, Tonny Kapsandui¹ | ¹Amref Health Africa, Uganda**

Background: In 2012, the Ministry of Health in Uganda estimated that there were about 200,000 women who had sustained fistula in Uganda and about 2,000 new cases occur every year. Between May, 2014 and May, 2016, 357 Fistula cases were repaired from Arua regional referral hospital, Gulu regional referral hospital, St. Mary's hospital Lacor, Nyapea hospital, St. Joseph's hospital Kitgum in northern Uganda. Of these, 326 (91.3%) of Fistula cases were successfully repaired while 31 (9.7%) had recurrence following a review after three-month post-operation. Adherence to post-operative instructions was noted to be a problem. We conducted a study to identify the barriers to adherence to implementation of post-operative instructions by the fistula survivors.

Methods: The critical behaviour model was applied to collect and analyse data collected from 104 respondents who included; repaired clients/survivors (74), surgeons (3), Midwives (8) and clinicians (4) using mixed methods. The study employed Epi-Data 3.04 for data capturing, MS Excel for Data cleaning and coding and SPSS 20 for data analysis. Qualitative data was captured using field transcripts from FGDs, In-depth Interviews and findings validation dialogues. Content analysis was used to analyze qualitative data. Frequency of mention was used to determine the most important barriers.

Results: Among the 74 obstetric fistula cases, 73 (99%) clients received counselling on postoperative instructions and of these 66 (90%) purported to have adhered to them. The reported barriers to implementation of post-operative instructions were: limited male involvement (38.5%), financial constraints (23.1%), patients' negative attitude (23.1%), inadequate support from other family members (7.7%) and inadequate support from health workers (7.7%).

Conclusions & Recommendations: While this study builds on the dearth of reliable data on the barriers to adherence to postoperative instructions, it recommends that these barriers are taken into consideration by anyone offering fistulae repairs for enhanced success rates.



TUABLO14: Use of integrated models to fight child marriages in Karonga district, Malawi; **Seminie Cathy Nyirenda¹, Emmanuel Kanike¹, Arthur Chibwana¹, David Matiya¹, Christopher Kandionamaso¹, Sophie Makoloma¹, Pansi Katenga¹ | ¹Christian Aid, Malawi**

Issue: Malawi is among countries with highest rates of child marriage, 1 in 2 girls married by the age of 181. There is high fertility rate (4.4), teenage pregnancy prevalence (29%), and high maternal mortality ratio (439/100,000 live births). In Karonga, teenage pregnancy ranges from 26-38.4%. Factors contributing to child marriages include; poverty, harmful cultural practices, illiteracy, gender imbalances, inadequate knowledge on sexual reproductive health and rights. Christian Aid and its Partners integrated the Start Awareness Support and Action (SASA) model to fight child marriages and utilised Community Philanthropy to mobilise resources to support girls withdrawn from child marriages. The abstract presents lessons learnt from this integration.

Description: 66 women were trained on Start Awareness Support Action (SASA) model to influence positive behaviour change towards maternal new-born and child health, including fighting harmful cultural practices affecting girls and women. Strategies used by SASA included: community sensitizations, role modelling, community dialogues and interface meetings in collaboration with health workers, traditional leaders, police, social welfare, and judiciary. SASA members withdrew girls from child marriages through community structures and linked them for support. The project coordinated key district stakeholders to mobilise domestic resources to support girls' education.

Lessons Learnt: 572 girls were rescued from child marriages, 181 returned back to school. Chiefs established Sumuka Inn Declaration to end child marriages; 16 child marriages' perpetrators convicted. Karonga district established "A Family Graduate Trust Fund" to support girls' education, including those withdrawn from child marriages, which managed to raise MK1 million in one event. Community members are willing to find solutions for their communities if they are well empowered.

Next Step: Programmes fighting child marriages should include educational and psycho-social support for girls withdrawn from child marriages



TUABLO15: Examining the progress of initiatives to tackle female genital mutilation/cutting (FGM/C) in rural Kenya: perspectives of anti-FGM/C campaigners; **Purity Mwendwa¹, Thilo Kroll², Aoife De Brún² | ¹Trinity College Dublin, Ireland, ²University College Dublin, Ireland**

Background: Female Genital Mutilation/cutting (FGM/C) is a tradition rooted in culture and involves the partial or total removal or other injury to the female genital organs for nonmedical reasons. Over the past 40 years' interest in curtailing the practice has intensified and several awareness and abandonment approaches have been deployed with the aim of influencing behaviour change. In Kenya while the prevalence of FGM/C is relatively low (21 percent), prevalence is distributed variably throughout the country ranging from 1 percent to 98 percent across counties. Recently, anecdotal accounts have emerged which strongly suggest that FGM/C continues to be practiced in certain ethnic groups in Kenya. It is hypothesised that this may be the case as interventions to halt the practice tend to be isolated and uncoordinated, which makes assessing their impact challenging.

Objectives: This study examines the progress of initiatives to tackle FGM/C in rural Kenya. From the perspectives of anti-FGM/C campaigners. We conducted 4 focus groups (FGs) with 30 participants from Tigania East and West in Meru County.

Results: There has been a substantial shift in the culture of FGM/C and prevalence has drastically decreased in recent years. The church and education had a significant impact in shifting the culture as well as newer legislation outlawing the practice. Parents generally play a crucial role in the decisions to have FGM/C performed but overall mothers were believed to be the main support and perpetrators of the practice. Participants noted five actions likely to bring about change; 1) inclusion of the topic of FGM/C in the current education curriculum and public fora 2) strengthening the community policing strategy Nyumba Kumi, 3) reviving and supporting Alternative Rites Programmes (ARPs), 4) setting up community centers for orphans and 5) encouraging fathers' involvement in the upbringing of their daughters.



TUABLO16: Lesotho's National Health Care Reform – a delivery strategy for the progressive realization of UHC; **Abera Leta¹, Joel Curtain¹, Ermyas Birru¹, Joalane Mabathoana¹, Sophie Mothamai¹, Palesa Chetane¹, Ryan McBain¹, Collin Whelley, Afom Adom¹, Annie Michaelis¹, Likhapha Ntlamelle¹, Seyfu Abebe¹, Melino Ndayizigiye¹, Joia Mukherjee¹ | ¹Partners in Health, Lesotho**

Issues: The achievement of Universal Health Coverage (UHC) requires an implementation strategy based on practical, country-led, and adequately financed plans that address the demand for and supply of high quality care. Despite this, the UHC movement has largely focused on demand-side barriers, namely user fees, health insurance, and increased domestic financing, though care delivery remains weak throughout the world. Lesotho exemplifies this challenge: with no user fees at the primary health care (PHC) level and strong domestic expenditure on health, it nonetheless has some of the poorest health outcomes globally.

Description: Lesotho's National Health Care Reform, launched by the Government of Lesotho and Partners in Health in 2014 across 40% of the country, is jointly addressing barriers that limit access to care and improving the quality of the services for the progressive realization of UHC, through three foundational components. A service delivery strategy for the progressive realization UHC; a rights-based implementation and advocacy strategy that involves mapping the entire burden of disease and aligning this with and advocating for adequate staffing, supply, and system inputs. Strengthened health system management; at the district and national levels through decentralized funding and decision-making, and health management training and mentorship. A professionalized community health worker program of adequately trained, supervised and incentivized community members acting as a bridge to care.

Lessons learnt: A mixed-methods evaluation completed in 2018 indicated significant PHC improvements; 30% increase in facility-based deliveries, 42% increase in children fully immunized, 20% increase in the number of people newly enrolled in antiretroviral therapy (ART), 17% decrease in ART patients lost to follow-up, and significant supply chain and referral systems improvements.

Next steps: The approach is being scaled nationally, with increased alignment of all resources a key component. This initiative represents a replicable right-based implementation approach for the progressive realization of UHC in the Global South.



TUABLO17: Strategies to reach priority populations with HIV Prevention in VMMC services in Rwanda; **Eugene Rugwizangoga¹, Augustin Ntakirutimana¹, Marcel Manariyo¹, Stephen Mutwiwa¹, Marie Rose Kayirangwa¹, Placidie Mugwaneza² | ¹Jhpiego, ²Ministry of Health**

Introduction: The WHO and UNAIDS have set a Fast-Track goal to achieve 90% coverage VMMC among males aged 10–29 years in priority settings by 2021. VMMC services offered through high volume campaigns continue to attract more young boys keeping the percentage of priority age bands below 50% far from the 90% coverage recommended. It is urgent to understand issues on supply and demand-side in order to attract a greater proportion of clients in the young age groups. According to DHS 2015 HIV prevalence is 0,3% to 1,7 % in young age, and 2,1% to 9,3% in above 30 years. The aim of this study is to assess the effectiveness of weekend VMMC services for reaching targeted age bands in six months before and after this intervention

Methods: Jhpiego VMMC program implemented PEPFAR recommendation to use VMMC services offered over the weekend. This strategy responds to social norms on older men privacy surrounding VMMC and aims to alleviate barriers for undergoing VMMC. Out of 28 VMMC sites nine were selected to offer VMMC over a weekend from June 2018, others continued to use weekly working days.

Results: From January to December 2018, 53,973 males were circumcised in 28 sites. Since June 2018; 22, 811 (75.6%) procedures were done in 19 health facilities working days across the week and 7,377 (24.4%) in 9 sites working over the weekend. Percentage of males in priority age band increased from 43% to 64% in weekend sites and 46% to 48% in traditional sites; the overall achievement in age bracket has increased from 46 % to 56%.

Conclusion: Scaling up VMMC services on special time can help to progress towards the goal of 90% of males circumcised in priority age bands as recommended by WHO in severely HIV affected countries, and thus to decrease HIV incidence.



TUABLO18: 1 Step 4 Life; Mari Lahti¹, Jay Evans², Alan White³; ¹Turku University of Applied Sciences, Finland, ²Universities of Edinburgh, UK, ³Interactive Health Ltd, UK

Issue: The risk of dying in pregnancy and childbirth is more than 100 times higher for women in many Sub-Saharan Africa (SSA) countries than for women in high-income countries. The inaccessibility and non-adherence to ante and post-natal care are responsible for poor health outcomes among mothers and children. [i]However, technology holds the potential to significantly improve these outcomes.

Description: The authors are members of the Finnish led 1Step4Life consortia of European and African partners. It blends successful mHealth interventions in SSA with a new-machine learning and predictive analytics hub that is being tested in Scotland as an outcome of the EU Making it Work Northern Peripheries project. The project aims to combine mHealth tools, based on existing best practice with innovative machine-learning in parallel with community engagement using drama and storytelling. The machine-learning component will enable predictive analytics for timely diagnosis and the exploration of future risk scenarios, to be used by decision makers to allocate scarce resources. Our approach will be channelled through local universities to Community Health Workers and Primary Health Care practitioners.

Intervention: The project focuses on co-creation and implementation research as a means to jointly develop, establish and successfully implement interventions for maternal and child health care in low-resource environments. The pilot implementation of the project will select contextually different remote communities to generate robust evidence to enable sustainable scale-up in a variety of implementation contexts.

Lessons: Preliminary findings suggest that such an intervention should include diagnosis based on predictive analytics and would be acceptable to both professional and non-professional health workers and that it should also include CPD and cover a range of conditions. Additionally, more timely transfers to clinics or hospitals may outweigh the risks of misdiagnosis.



TUABLO19: WhatsApp is what's up: how IP messaging is saving lives; **Ambika Samarthya-Howard¹, Marcha Bekker¹ |
¹Prækelt, USA**

Issue: While the South Africa National Department of Health has scaled MomConnect to 2 million mothers in less than 4 years, we understand that there are prohibitive SMS inventory costs to support over 800,000 women currently using the services.

Description: Sending essential information via SMS to pregnant women and new mothers accounts for over 50% of monthly expenses. Now IP messaging platforms are on the rise and taking major market share from SMS. WhatsApp was ranked 'Top free communication app' and 'Top free app overall' on Google Play in South Africa. We wanted to explore how we might use WhatsApp to deliver a service that reduced monthly operational costs while giving us an opportunity to explore a multimedia user experience to increase the health-seeking behaviours of our users. We had the privilege of being the first pilot partners for WhatsApp's Business API to engage with mothers on the the MomConnect platform.

Lessons: As the only nationally integrated mHealth platform in Africa, MomConnect was a perfect fit to integrate the technology. In September 2017, all public registrations were given the option of selecting WhatsApp as their medium of choice for receiving maternal health information. The engagement from the launch was inspiring; we can see a WhatsApp subscriber is 6.7 times as likely to reach out to the helpdesk and is 2.5 times more engaged when compared to SMS.

Conclusion: Through WhatsApp we can identify different user groups; optimise message delivery; and employ natural language processing as avenues through which digital health messages can be delivered or improved upon. WhatsApp poses a truly unprecedented opportunity to build a global maternal health platform that will allow for personalisation of messaging and collection of vital maternal health data



TUABLO20: Implementation of a National Health Observatory: Lessons learned from Rwanda; **Candide Tran Ngoc¹, Emmanuel Ntawuyirusha², Andrew Muhire², Parfait Uwaliraye², Stella Tuyisenge¹, Juliet Bataringaya¹, Benson Droti¹ | ¹World Health Organization, Rwanda, ²Ministry of Health of Rwanda**

Issues: In several countries, lack of data is no more at the core of the problem; but rather data use, which needs to be increased for improved policy and decision-making.

In Rwanda, while a robust monitoring system already monitors national health targets; the need for more detailed indicators urged for the establishment of a national health observatory.

Description:

The World Health Organization (WHO) is supporting the implementation of health observatories in the African region, as per the Ouagadougou Declaration and the Algiers Declaration in 2008.

One of the major goals of health observatories is to strengthen the national health information systems by providing accurate statistics for an improved planning; efficient resources allocation and better monitoring of quality of care. In Rwanda, this work started in 2013 and allowed the developments of early implementation phases. The R-HO has been online since February 2018. Lessons learnt: The R-HO is a long-term project; and can thus be implemented through decades. Also, it was included into national health strategic plan to ensure full ownership and sustainability. Furthermore, a clear vision and mission are critical and need to be communicated to various audiences. The availability of staff is also a key factor of success. Finally, data quality is vital for an appropriate decision-making; and high-quality information should therefore be produced to guarantee the credibility of the R-HO.

Next steps: Time has now come to open this promising initiative to additional partners. Next steps therefore include: Increasing awareness about the R-HO to the public health community; Conducting resource mobilization to ensure the sustainability of this project; Envisaging further integration between the HMIS and the R-HO; Conducting regular integrated data validation meetings; Enlarging the R-HO team and involving staff from other relevant institutions.



TUABLO21: Scaling SRHR Digital Content in Sub-Saharan Africa; **Ambika Samarthya-Howard¹, Marcha Bekker¹ | ¹Praekelt, USA**

Issue: At a time when there are more cell phones than people in the world, organizations are leveraging mobile technology to reach the nearly half of the world's population that's under 25.

Description:

This paper highlights learnings around scaling sexual health content on mobile, looking specifically at TuneMe, a mobi-site for youth engagement that began in Zambia and has scaled to over 7 countries and 2 million users in Africa. Sexually-transmitted infections place a disproportionately heavy burden on young people who often have no access to comprehensive sex education and health services.

Funded by UNFPA and Ford Foundation, TuneMe is designed for low- and high-end devices in environments where high data charges and poor network coverage combine to limit access to online services. Through social features and content designed to engage users, Tune Me aims to equip adolescents with the information and motivation they need to make better choices. TuneMe provides adolescents a safe space to share comments, questions, and stories, integrating user-generated content and personal stories. Tune Me talks with adolescents - not at them.

Lessons: Tune Me has over 400 user stories and 4 million page views. The platform covers subjects as diverse as menstruation and gender-based violence. Adapted from a global set of content, the stories are adapted and translated for local audiences to ensure relevance and improve engagement.

Next steps: TuneMe is looking to use site and social analytics for continued evolution of its site content, and to scale its platform to more countries in Africa. As users turn to social media platforms over websites, TuneMe aims to make them work together.



TUABLO22: Use of malaria normal channels to identify and respond to malaria epidemic in Kisoro district, Uganda Odong
Michael Kidega | Amref Health Africa in Uganda

Issue: In January 2018, a malaria epidemic was reported in Kisoro District, South Western Uganda in the sub-counties of Murora and Kanaba. We conducted entomological surveillance to identify the species of the vector and behaviour, species abundance, susceptibility of the vector, environmental and social risk factors for transmission and implemented evidence based control measures.

Description: In Jan 2018, sites received a malaria normal channel graph, staff were oriented on how to construct a malaria channel and tasked to plot weekly confirmed malaria cases. Following the report, data and medical records were reviewed to ascertain the quality and confirmed that an epidemic had occurred. The following activities were implemented; i) CMEs on integrated malaria cases management, ii) community mobilization using the six-tent and mass screening, testing and treatment in malaria hot spots, iii) quantified and sourced the required antimalarial supplies from the neighbouring districts and National Medical Stores, iv) conducted mosquito net use demonstrations in the affected community and engaged the district and sub-county leaders to enforce the use of nets through media, v) allocated high skilled staff to the affected facilities and vi) continued weekly monitoring of malaria trends through M-TRAC and plotting of the malaria normal channels to assess the effect of the interventions.

Lessons: Males and females were equally affected with the attack rate of males slightly higher than females in the 2 sub counties. The malaria epidemic was contained in a period of 14 weeks using existing Local resources with only one mortality registered. Below is a malaria normal channel for the four health facilities in the affected sub-counties.

Next steps: Weekly tracking of malaria cases using mHealth (M-TRAC) and plotting of malaria Normal channels were key to identify the malaria epidemic and monitor the effectiveness of the interventions institute



TUABLO23: Tackling Childhood pneumonia diagnosis at the root, within community; **Niels Buning | Philips, The Netherlands**

Issue: Pneumonia is the main infectious disease cause of death among children under the age of 5, resulting in more than 920,00 deaths annually and accounting for 16% of child mortality worldwide. Of these, 99% of deaths occur in developing countries in low-resource settings, typically rural areas with very limited or poor healthcare facilities or with low-skilled health workers. Pneumonia affects children and families everywhere, but is most prevalent in South Asia and sub-Saharan Africa in low-resource settings, which typically entail rural areas. Pneumonia is one of the most solvable problems in global health, yet a child dies from the infection every 30 seconds.

Description: Children can be protected from pneumonia, it can be prevented with simple interventions, diagnosed and treated with low-cost generic medication and care. However, the vast majority of vulnerable children born in low resource settings lack equitable access to quality affordable care. A CHERG study has estimated that community case management (CCM) of pneumonia could result in a 70% reduction in mortality from pneumonia. CCM promotes the early recognition, prompt diagnostic testing and appropriate treatment in the home or community. Expanding CCM does not only save lives, in addition it could also significantly reduce household costs (up to 30-fold reduction). Improving access to services and increasing awareness and demand for services within communities is crucial to controlling pneumonia.

Lessons: The UNICEF ARIDA implementation trial with the Philips CHARM (RR diagnostic monitor) has demonstrated improved care seeking behavior and high acceptability and usability rates amongst Health Extension Workers (CHW's). Thus significantly empowering these front line health workers in the fight to end childhood pneumonia. An example of locally relevant, inclusive innovation that unlocks equitable access to affordable quality care for the underserved.



TUABLO24: Improving Community TB data capture and use: A case of Global Fund TB project in Kenya; **Christine Mwamsidu¹, Benson Ulo¹, Titus Kiptai¹, Anne Munene¹ | ¹Amref Health Africa, Kenya**

Description: Amref Health Africa in Kenya has implemented Global Fund Community TB activities through Sub Recipients (SRs) since 2011. Activities include screening contacts of bacteriologically confirmed TB patients and tracing patients who interrupt TB treatment. Data Management was done through Grants Management Information System (GMIS) which captures minimal details. National systems, TIBU and DHIS2, also optimally tracked community TB data. Other than target versus achievement, community TB data was paper based making retrieval and analysis difficult. Further data capture and analysis was based on need which called for development of parallel systems. This was not sustainable. In 2016 the project upgraded GMIS to include more indicators for community TB data. All 29 SRs hired data clerks to enter data into the GMIS monthly. The SRs were able to view, analyze their data and discuss with health care workers during sub county data review meetings for decision making.

Lessons learnt: Devolving data entry to SRs allowed the PR to focus on analysis and address identified gaps. For 2016 and 2017 data for Contact tracing is now available on number reached (98,677), those with signs and symptoms (10,091) and those referred to health facilities (8,639). By age there is data on children under 5 years (5,376) and 5 -15 years (4,644) referred to health facilities. Similarly, for defaulter tracing data is now available on number reached (7,819), number found (5,656) and number returned to treatment (3,723). The data has been used to guide critical project activities including, service improvement, programming (setting targets) for the new GF grant and desk review for SRs performance.

Next steps: Expanding existing electronic systems can assist in improving data management in an organization. There is need for close supervision of SRs to ensure completeness and quality of entered data.



TUABLO25: SampleTaxi – Ride-sharing technology reduces the time from test to treatment; Barbara Singer¹, Susana Moreira¹, Elden Formoso¹, Mamiza Muteia¹, Dercio Duvane¹, Fernando Joao² | ¹VillageReach, Mozambique, ²Ministry of Health, Mozambique

Issue: In Mozambique, the turnaround time for patients to receive results from laboratory samples is excruciatingly long, delaying treatment and contributing to the spread of disease. Exacerbating the problem is a sample transportation system which is poorly coordinated, siloed by location, disease, and partner funding, and lack of reliable vehicle availability. SampleTaxi uses Logistimo Fleet Management software to accelerate transportation of Viral Load, EID, and TB specimens from peripheral health facilities to laboratories. This innovation coordinates requests for lab sample transport with available drivers, introduces laboratory sample tracking and documentation. SampleTaxi is leveraging.

Description: Technology and innovative models of service delivery to accelerate access, as well as improving the timeliness and quality of treatment for HIV, TB and other diseases. In June 2018, VillageReach trained 30 Ministry of Health workers and 14 drivers on the Sample Taxi approach and technology. GPS-enabled smartphones loaded with the Fleet application were issued to drivers; health workers were provided a toll-free number to communicate all requests to the Sample Taxi “hub”. At the hub, a dispatcher enters requests and identifies available drivers working in the geographic area. Drivers then collect samples at the health facility with electronic signatures captured at pick up and delivery. Samples are labelled with QR codes, and drivers are tracked continuously via GPS.

Lessons Learnt: Health workers are kept updated throughout with auto-generated SMS to personal phones. Preliminary data supports the potential of ride-sharing to disrupt the sample transport system. In the first 3 months, 79 requests were made to transport 1,246 samples from the two participating districts. Transit time for EID and Viral Load has decreased to 5 days compared to 28 on average.

Next steps: Include introduction of Fleet to other local partners including the private sector, integration with other parallel transit networks, and assessment for interoperability with lab data systems.



TUABLO26: The e & mHealth, a major innovation in community health services of southern Senegal initiated by Amref Health Africa; **Lo Mouhamed El Bachir | Amref Health Africa in Senegal**

Issue: Maternal, newborn and child mortality in Kolda region still very high due to both low delivery by a qualified personal (25%) and access to health care. To contribute to the improvement of those indicators, Amref Health Africa and Humanity and Inclusion developed an integrated e and m-health platform focussing on MNCH and children disabilities demand and supply services and used by nursers, midwives and community actors.

Description: The model used and integrated platform combining m-health, e-learning and telemedicine including phone settings and temedecine suitcase. CHWs equip ped with mobile phones ensure registration, follow up of women, children under five years and with disabilities and their appointments reminder through analert system setting and linked to peripheral health facilities where information are stored on tablets and computer. Midwives and nurses create and upgrate a patient database while benefitting from an ongoing MNCH training through e-learning platform. Proximously care with telemedicine suitcase are delivered including several health services, referral for specialized services and outreach interventions in remote areas. 21,556 pregnant women, 10,512 postpartum, 71,878 children under five and 178 children with disabilities registered and followed- 75 CHWs and 50 connected to the telemedicine platform- 50 health workers e-trained on the MNCH including disabilities. - 735 women to benefitting from telemedicine including ultrasound outreach consultations on pre- and post-natal outreach

Lessons Learnt: Using of this platform while being an interactive and dynamic tool for the patients follow up, shows that it remains an oppotrunity to reduce risks factors increasing young and new born morbidity and mortality espacially in remote areas in order to contribute in reaching of SDG 3.



TUABLO27: Use of data visualization dashboards to improve performance monitoring and data use in health care services management in South West Uganda; **Wasike Samuel | Amref Health Africa, Uganda**

Issue: Data dashboards are customized user friendly management tools that help in visual tracking, analysis, display of key performance indicators (KPI) and key data points for performance monitoring. Visualization has enabled comparing, viewing of large sets of data. In a large health intervention involving 800 health facilities and 16 District Health Offices in South Western Uganda. Data visualization was introduced in June 2018 after power BI training and due over whelming data calls from program team and other stakeholders.

Description: Health facilities routinely compile standard weekly, monthly and quarterly reports, which are electronically captured in the MoH DHIS2 national database by facility at Health Sub-Districts. Three months after dashboard implementation, stakeholder increased demand for analyzed performance trends and guarantee quality of data reported. As a result, the project team developed tabular and graphics dashboards that enable a deep dive visual display from regional, district and site level. Data from the dashboards are downloaded from the DHIS2 using standardized favorites and periodically updated, dashboards auto populates and then shared with different stakeholder.

Lessons Learnt: Dashboards reduced the turnaround time for data analysis, responding to data requests and eased report generation with comparative performance analysis for stakeholders. It has reduced on data calls since stakeholders can navigate through to their specific needs, visualize trends and make interactive comparisons. Performance dashboards contributed to informed decision making and stakeholder can on real time identify trends, pinpoint problem areas, and direct resources in an efficient manner. The approach improved and increased learning, transparency, and accountability, and makes it easier to evaluate trends in district health sector. Data dashboards inspired stakeholders in visualizing performance summaries in real time and support timely decision making hence it has promoted efficiency and effectiveness in improving the quality health services.



TUABLO28: mSCAN - an innovative mobile solution for universal health care coverage; **Prosper Ahimbisibwe | mSCAN, Uganda**

Issue: M-SCAN is an innovative approach that uses smart device technology, ultrasound and the power of IT in early detection of maternal emergencies guaranteeing timely intervention. According to WHO report 2015 on maternal health, every day, approximately 830 women die from preventable causes related to pregnancy and child-birth. 99% of all maternal deaths occur in developing countries. The East African Newspaper reported that one in 53 women in East Africa is likely to die during childbirth.

Description: M-SCAN addresses the problem of limited access to portable ultrasound devices that are both affordable and energy efficient to be used for early diagnosis and patient management in hard to reach rural areas, emergency care, health centers and medical concierge services. mSCAN leverages on a mobile ultrasound device that works with a phone/ laptop to deliver life-saving ultrasound to pregnant mothers in the most resource limited of areas rural Africa.

Early detection of risk factors of maternal mortality allow for referral of mothers for timely intervention by a medical worker. At a MAMA medical camp organised by mSCAN Uganda on Kalangala Island, Lake Victoria Uganda, 61 women had antenatal ultrasound scans. 8 were flagged with various risk factors and referred to the main land health centres for medical and surgical interventions.

Lessons Learnt: Kalangala Island, a bunch of 84 islands had 95% of mothers coming in who had never had antenatal ultrasound screening. WHO recommends three antenatal scans. Barriers to access of care range from being geographical, structural and economic. Innovation is key in increasing access of quality health care by circumnavigating barriers to care. Accelerating the drive to end the high maternal mortality rates should be a foundation of our health agenda. There an immense potential in leveraging on innovative technologies to ensure more and inclusive access to healthcare.



TUABLO29: Integrating breastfeeding educators, manual and short message services in promotion of exclusive breastfeeding in Kakamega County; **Evelyn Shipala Mulunji¹, Jackson Safari², Rachel Ambalu² | ¹County Department of health, Kenya, ²Amref health Africa, Kenya**

Background: Exclusive breast-feeding is recommended for infant feeding during the first 6 months after birth. However, despite the numerous health benefits associated with this recommendation, the period of exclusive breastfeeding in Kenya is much shorter for most infants. This study therefore, seeks to determine the effect of Breast feeding Educators, lactation manuals and short messages services on exclusive breast feeding practices among nursing mothers in Kakamega County, Kenya.

Methods: A sample of 260 mothers in their last trimester of gestation period attending pre-natal clinic were randomly drawn from Malava and Butere sub-county hospitals. They were randomized into two groups: Intervention and control group. After prenatal education, the interventional group had home visits during the study period by trained breastfeeding educators for more postpartum education, lactation manuals and short messages were sent daily to them to emphasize on benefits of EBF. The Control group had follow up only to check the welfare of the infants and data collection.

Results: Higher proportion (79.2%) of infants in the intervention group were exclusively breastfed for six months compared to 39.2 % in the comparison group. The median EBF duration (months) for intervention group was 6 while in the comparison group was 3. The prevalence of diarrhea among infants in the intervention group was 11.5% compared to 31.5% in the comparison group. At 6 months, the prevalence of under-nutrition in the intervention group was 9.3% compared to 32.2 % in the comparison group.

Conclusion: Breastfeeding is a learned experience requiring knowledge and education in order to be successful and it may or may not come naturally to the mother and infant. Promoting breastfeeding through educators and SMS messages is certainly possible. There is need to emphasis partnerships, harmonizing field approaches for scaling up, and addressing newborn health within a continuum of women's education.



TUABLO30: Medical imaging in hospitalized patients treated for tuberculosis in a reference hospital in Rwanda: a focus on dissemination status; **Leopold Bitunguhari¹, Olivier Manzi¹, Timothy Walker², Jean Paul Rwabihama¹, Joanes Clerinx³** | ¹University of Rwanda, Rwanda, ²University of Newcastle, Australia, ³Institute of Tropical Medicine, Antwerp, Belgium

Introduction: Tuberculosis (TB) and HIV remain major causes of morbidity and mortality worldwide, Abdominal ultrasound may reveal TB disease and its spread in hospitalized patients with unrecognized TB. The focus of study was to assess TB multifocality and overlapping features in TB dissemination and its relationship with HIV co-infection.

Methods: This prospective observational cohort study included hospitalized patients on TB treatment with or without HIV. TB was confirmed when acid-fast bacilli were found in sputum and Xpert results or elsewhere, and probable when composite clinical, laboratory and radiological findings were consistent with TB disease. Disseminated TB was defined on medical imaging criteria. HIV coinfection was a study endpoint.

Results: Of 199 patients, TB was confirmed in 80 (40%), and 125 (63%) were HIV coinfecting. Chest X-ray was consistent with TB in 148/187 (87%), and abdominal ultrasound in 156/183 (85%). Pulmonary TB and/or concurrent pulmonary/extrapulmonary TB was seen in 130 (65%), and isolated extrapulmonary TB in the remaining 69 (35%) patients. More than one anatomical site was affected in 145 (73%), and TB was disseminated in 121 (61%). HIV coinfection was associated with disseminated TB, abdominal TB and miliary TB, but inversely with TB pleurisy.

Conclusion: Disseminated TB is predominant in hospitalized patients, and associated with HIV coinfection. Abdominal ultrasound is essential to document TB dissemination.



TUABLO31: Rwanda Health Management Information System (HMIS) data verification: A case of sixty-nine health facilities in four districts of Rwanda; **Alphonse Nshimiyiryo¹, Catherine Kirk¹, Sara Sauer², Emmanuel Ntawuyirusha³, Andrew Muhire³, Bethany Hedt-Gauthier²** | ¹Partners in Health, Rwanda, ²Harvard University, USA, ³Ministry of Health, Rwanda

Background: Reliable Health Management Information System (HMIS) data can be used with minimal cost to measure coverage and impact of healthcare. However, variable HMIS data quality in low- and middle-income countries limits its value in evaluation of universal health coverage (UHC). We assessed quality of Rwandan HMIS maternal and newborn health data in advance of launching a data-driven quality improvement initiative.

Methods: A cross-sectional study was conducted in 69 public health centers (HCs) in four Rwandan districts. For eight maternal and newborn health data elements, we compared the Rwanda HMIS data to facility register data collected by study staff. Data were aggregated for a three-month period (April-June 2017: 44 HCs in Gakenke/Rulindo districts and July-September 2017: 25 HCs in Gisagara/Rusizi). World Health Organization data quality guidelines were used: a verification factor (VF) was defined as the ratio of register data over HMIS data. A $VF < 0.90$ or $VF > 1.10$ indicated over- and under-reporting in HMIS, respectively.

Results: A high proportion achieved acceptable VFs for the number of deliveries (99%;68/69), antenatal care (ANC1) new registrants (96%;66/69), live births (94%;65/69), and first newborn postnatal care (PNC1) visit within 24 hours (82%;51/62). This proportion was slightly lower for the number of women who received iron/folic acid (78%;47/60) and were tested for syphilis on ANC1 (66%;45/68) and was the lowest for the number of women with ANC1 standard (before 16 weeks of pregnancy) (25%;17/68) and four standard visits (ANC4) (17%;12/69). The majority over-reported on HMIS data for ANC4 (77%;53/69) and ANC1 (65%;44/68) standard visits.

Conclusion: There was variation of HMIS data quality by data element. Reporting was less accurate for ANC-related data requiring more complex calculations – i.e., knowledge of gestational age and scheduling to determine ANC standard visits. Ongoing data quality assessments and training could help improve HMIS data to be used in evaluations of UHC.



TUABLO32: Community awareness and knowledge of sexual and reproductive health rights: A comparison from baseline and end-line surveys data from Meatu District, Tanzania; **Nyerere Jackson | Amref Health Africa, Tanzania**

Background: Access to information and services is central in the promotion of SRHR and enable young people to make informed choices, hence reduces teenage pregnancies and sexually transmitted infections (STIs). SRHR becomes one of the most fundamental components of reproductive health program in Tanzania.

Objectives: These studies aimed at understanding the community awareness and knowledge on SRHR issues.

Methods: Both surveys were cross-sectional studies- conducted between March 2015 and 2018 respectively. The baseline study collected data from 380 while end-line collected data from 335 in and out of school youths aged 10-24 years using semi structured questionnaires.

Six FGDs among elders and community leaders were conducted in both surveys. Data analysis was performed using Stata 12. Descriptive and inferential statistics were used to summarize the data. While qualitative data were thematically analyzed.

Results: The respondents were equally distributed in gender and had formal education. (54.7%) at baseline and at end-line (49.8%) were boys and (50.2%) both from in-school and out of school. Less youth were not free to discuss sexual matters openly at baseline (56% at baseline versus 78.9% at end line). There was 25.6% increase in respondent's ability to freely choose spouses during the end-line survey. More youth had access to advice on sexual matters from family members (69% versus 35% in the baseline). Perception of "responsibility" also increase by 2 folds for youth seen purchasing a condom. Qualitative data indicates that, giving allowing youth to discuss sexual related issues gives them space to make informed choices and decisions on matters related to their sexual relations.

Conclusions and Recommendations: The findings indicate a clear positive change of behavior that influence SRHR among youth in the community as a result of peer education, use of community influencers and parent/child communication forums.



TUABLO33: Gestational diabetes mellitus in the global HIV-infected pregnant women: a systematic review and meta-analysis; **Belete Biadgo Mesfine** | **University of Gondar, Ethiopia**

Background: Diabetes mellitus is the major causes of morbidity and mortality among people living with HIV. Pregnancy is also a risk factor for impaired glucose metabolism.

Previous studies have reported the contribution of antiretroviral therapy to impaired glucose tolerance and GDM in pregnant HIV-infected women.

Methods: Preferred Reporting Items for Systematic Reviews and Meta-Analyses guideline was followed for this systematic review and meta-analysis. We searched a cohort and cross-sectional study design studies reported the prevalence of gestational DM among HIV infected pregnant women, published until April 30, 2018. The STATA version 11 was employed to compute the pooled estimates of the prevalence of GDM using the random effect model and 95% confidence interval. The Cochran Q test and I² test statistics were used to test potential source of heterogeneity across studies. Subgroup analysis was employed in the evidence of heterogeneity in a geographical region. Visual inspection of the funnel plot and Egger's regression test statistic was used to show the publication bias.

Results: A total of 544 articles were identified, of which 21 publications involving 175,837 study participants met the inclusion criteria. The pooled prevalence of GDM among HIV infected pregnant women using the random effect model was 4.42% (95% CI: 3.48-5.35). The subgroup analysis revealed that, the pooled prevalence of GDM among HIV infected pregnant women were, 7.07% (95%CI: 3.38-10.76) in Asia, 5.83% (95%CI: 2.61-9.04) in Europe, 3.58% (95%CI: 2.67-4.50) in America and 3.19% (95%CI: -2.89-9.27) in Africa.

Conclusion: The pooled prevalence of gestational DM among HIV infected pregnant women is expectedly high. Government and other stakeholders should give due attention to an early screening of GDM during pregnancy.



TUABLO34: Knowledge and acceptability of HPV vaccine among adolescent school girls, Kinondoni District, August 2018;
Benson Bryceson Mringo | Hubert Kairuki Memorial University, Tanzania

Background Information: Human papilloma virus (HPV) Vaccine is the type of vaccine that prevents infection of certain types of Human Papilloma virus. All preteens need HPV vaccination so they can be protected from HPV infections that cause cancer such as cervical cancer. Currently Tanzania has initiated a vaccination program for all 14-year-old girls with main goal to reduce the burden of cervical cancer in Tanzania.

Objective: Assessment of knowledge and acceptability of HPV vaccine among adolescent girls in Kinondoni district, August 2018.

Materials and Methods: A cross sectional descriptive study was carried out in four primary schools in Kinondoni District. A total of 350 student 14 year old girls who attend in these primary schools were included in this study. A total of 35 question were divided into six categories on demographics characteristics knowledge and acceptability of HPV and its vaccine including its barriers. The questionnaire was administered to all 350 students. Data analysis was done using SPSS version 20. The proportion of assertive responses and respective 95% confidence Interval (CI) were used to describe each question.

Results: There was a lower proportion of correct answers among adolescent about the knowledge of HPV and its vaccine, its risk factors but high proportion of correct answers in its involvement in causing cervical cancer. Knowledge about HPV and its vaccine is low despite having high rate of acceptability among adolescent school girls. There were barriers to vaccine acceptability among adolescent school girls.

Conclusion

Policies and actions to disseminate information are urgently needed as the vaccination program expand country-wide in order to reach the goal of reducing the burden of cervical cancer in the country.



TUABLO35: Sero epidemiology of Hepatitis B and C Viruses in the General Population of Burkina Faso; **Tao Issoufou | Labiogene/University of Ougadougou, Burkina Faso**

Objectives: In Burkina Faso, few studies reported the prevalence of HBV and HCV in the general population. This study aimed to evaluate the sero-prevalence of hepatitis B and C viruses in the general population and to determine the most affected groups in relation with the risk factors associated with the infection.

Method: A voluntary testing opened to anyone interested was held at Saint Camille Medical Centre in Ouagadougou. Rapid tests were carried out on 995 people who voluntarily answered a range of questions before the venous blood sampling.

Results: Antigens anti-HbS carriers in the general population represented 144/995 (14.47%) and the prevalence of HCV was 10/995 (1.00%). The difference between HBV's prevalence in men (18.58%) and women (11.60%) was statistically significant ($p = 0.002$). The most affected groups were students (19.57 %), those working in the informal sector (15.98 %) and the least affected group was high school students (8.82 %).

Conclusion: HBV has a high prevalence while that of HCV is still low in the general population of Burkina Faso. Therefore, more campaigns on the transmission routes of HBV and HCV are needed to reduce the spread of these viruses in sub-Saharan Africa.

Keywords: HBV, HCV, General population, epidemic, Burkina Faso.



TUABLO36: Clinical characteristics of onchocerciasis-associated epilepsy in South Sudan; **Gasim Abd-Elfarag¹, Jane Y Carter², Robert Colebunders³, Peter Claver Olore⁴, Kai Puok⁵, Sonia Menon³, Joseph Nelson Siewe³, Samit Bhattacharyya⁶, Morrish Ojok⁴, Richard Lako⁷, Makoy Yibi Logora⁷** | ¹University of Amsterdam, The Netherlands, ²Amref International University, Kenya, ³University of Antwerp, Belgium, ⁴Amref Health Africa, Republic of South Sudan, ⁵Maridi Health Sciences Institute, Republic of South, ⁶Shiv Nadar University, India, ⁷Ministry of Health, Republic of South Sudan

Background: People in onchocerciasis-endemic areas experience different types of epileptic, growth and other clinical features. The frequency of these manifestations and the link with onchocerciasis are unknown. The purpose of the research is to describe the clinical manifestations of persons with epilepsy (PWE) in onchocerciasis endemic villages in South Sudan.

Methods: During an epilepsy survey in Maridi County (Western Equatoria State, South Sudan) in May 2018, persons with epilepsy (PWE) were interviewed and examined in their households by a clinical officer or medical doctor. Onchocerciasis-associated epilepsy (OAE) was defined as ≥ 2 seizures without any obvious cause, starting between the ages of 3–18 years in previously healthy persons who had resided for at least 3 years in the onchocerciasis endemic area. Data was analysed using Chi-squared, Mann Whitney and Kruskal Wallis ranking tests.

Results: Seven hundred and thirty-six PWE were included in the study; 315 (42.8%) were females; median age of PWE was 18 years. A variety of seizure types were reported: generalized tonic-clonic seizures in 511 PWE (69.4%), absences in 15 (2.0%), focal motor seizures with impaired awareness in 25 (3.4%), focal motor seizures with full awareness in 7 (1.0%), brief incidences of hallucinations in 316 (43.9%) and nodding seizures in 335 (45.5%). The median age of onset of all seizures was 10 years and for nodding seizures 8 years. PWE with nodding seizures presented with more cognitive disabilities. The diagnostic criteria for OAE were met by 414 (85.2%) of the 486 PWE with complete information. Eighty (11.0%) presented with Nakalanga features. Only 378 (51.4) PWE were taking anti-epileptic treatment.

Conclusion and recommendations: PWE presented with a wide spectrum of seizures. The high percentage of PWE who met the diagnostic criteria for OAE suggests that better onchocerciasis control could prevent new cases. Urgent action is needed to close the anti-epileptic treatment gap.



TUABLO3: Wetlands pollution and potential for schistosomiasis transmission in Nyabugogo Wetland; **Ngendahayo Emmanuel | University of Rwanda, Rwanda**

In some regions of Sub-Saharan Africa, natural wetlands represent the only available water resources, providing many functions and services to people; the reason why they are being over exploited. The degradation and pollution of wetlands has the potential to spread disease-causing microorganisms. The aim of this study was to determine the potential of pollution of Nyabugogo wetland that is link with the prevalence of Schistosomiasis.

A total number of 740 snails were collected from 11 water contact sampling sites. Snails were tested for *Schistosoma cercariae* using standard snail shedding methods. Snails and shed cercariae were morphologically identified (to genus level) by using standard identification keys. Stool samples were collected from 114 children and 98 adults residing in 4 communities close to Nyabugogo wetland. Heads of households were interviewed on water contact activities and water and sanitation facilities. Stool specimens were processed by Kato-Katz technique and a glycerol-methylene blue concentration method and diagnosed for *S. mansoni*. *Biomphalaria*, *Bulinus*, and *Lymnaea* snail genera intermediate hosts were found. Generally, the snail species, total number and relative abundance were: *Biomphalaria* spp 408 (55.1 %), *Lymnaea* spp 279 (37.7 %), and *Bulinus* spp 53 (7.2 %). The overall cercarial infection rate was 48.3 %. The overall prevalence of *S. mansoni* was 7.07 % (n= 15). Infection prevalence of *S. mansoni* was higher [10.53 % (n = 12)] in children than in adults [3.06 % (n = 3)]. The prevalence of *S. mansoni* (12.9 %) was higher in Gatunga. *S. mansoni* was more prevalent in female [6.3 % (n = 9)] than in males [8.5 % (n = 6)].

The presence of schistosomes and snail hosts of Schistosomiasis in waters of Nyabugogo wetland indicates that there is potential for Schistosomiasis transmission in the wetland and in the communities around it.



TUABLO38: Quality of Care rendered to hypertension and diabetes mellitus patients within selected public hospitals in Ethiopia: A base line survey, April 2016; **Mussie Gebremichael | Federal Ministry of Health, Ethiopia**

Introduction: Prevalence of high blood pressure and diabetes in Ethiopia is 15.8% and 3.2% in adult population.

Objective: The objective of this study is to assess the quality of care rendered to diabetes and hypertension patients in selected hospitals of the country.

Methods: Institution based cross sectional survey was conducted in selected 12 hospitals of the country. The survey was carried out in April 2016. DM and Hypertension patients aged > 17 years were the target population. A single population-proportion formula was implemented to determine the sample size. Data were coded and entered into computer by trained and experienced data encoders. 10% of the data was double entered by the PI to see the correctness of the data entry. The PI merged the data encoded by data encoders, and cleaned it. Data was analyzed by Public health specialists using SPSS version 20.

Results: Based on patient exit interview findings, 48.2% of patients had diabetes, while 29% had hypertension and 22.8% had both diabetes and hypertension. According to evaluation of clinicians on quality of care using criteria that include privacy and confidentiality, availability of the basic diagnostic services, equipment and medications in the hospital, availability of national treatment guideline and patient load, the overall rating of quality of care in the selected hospitals is 60%. Based on patient case note data, hypertension and diabetes control rate was 30.4%.

Conclusion: The quality of care provided to diabetes mellitus and hypertension patients at public hospitals is currently suboptimal which implies that decentralization of chronic illness care is needed to primary care level. One of the most important factors that contribute to sub-optimal quality of care is low capacity of health facilities visa-vis high patient load.

Key words: Hypertension and diabetes, Quality of Care, Institutional based, Public hospitals



TUABLO39: New strategies for controlling Soiltransmitted-helminthiases and Schistosomiasis in endemic areas: Integrating control programs in primary health facilities; **Aranca Amor Aramendia¹, Melaku Anegagrie¹, Elena Barrio¹, Juan José de los Santos¹ | ¹Mundo Sano Foundation, Spain**

Background:The control of Soil-transmitted-helminthiases (STH) and Schistosomiasis (SCH) is one of the major objectives for neglected tropical disease (NTDs) control in the WHO agenda for 2020. Even though huge efforts have been done in recent years, the burden of STH-SCH still is the far from the control, and the 2020 goal far to be reached. The strategy for control the burden, as public health problem, is the periodic mass drug administration (MDA) for at-risk population in endemic areas. Our project, has been working in Ethiopia in the frame of a public-private collaboration and in partnership with the Ministry of Health of Ethiopia, creating scientific evidence of STH-SCH prevalence, by using a comprehensive laboratory protocol, including a combination of techniques. The prevalence of STH-SCH in populations in rural areas when using that protocol is over 75%. Nowadays, the Ministry of Health in Ethiopia has created a new program for integrating the Water, sanitation and Hygiene (WASH) agenda with STH-NTD control programs; also, the STH-SCH networking appeals for integrating the NTDs programs in the primary health system in developing countries.

Methodology: We used a new strategy for detecting the prevalence of STH-SCH in a rural area of Ethiopia: we analyzed the same samples by comparing the routine diagnosis for patients in the health center with the protocol we have been working with in the last years in the area.

Results: The routine diagnosis gave a total of positive samples of 10.5%, while with our protocol the positives samples where 89.5% ($p < 0.0001$).

Conclusions: A comprehensive diagnosis in the health center will improve the accurate knowledge of the burden and so the control programs. However, because of the high work load in the health center, it would be advisable to increase the local staff order to achieve a true integration in primary facilities, not depending on external support.



TUABLO40: Aetiological factors of nodding syndrome: a systematic review; **Gasim Abd-Elfarag¹, Arthur Edridge¹, Renee Spijker¹, Michael Boele van Hensvroek¹, Jane Y Carter² | ¹University of Amsterdam, The Netherlands, ²Amref International University, Kenya**

Background: Nodding syndrome is a devastating neurological illness of uncertain aetiology and often presents with distinctive clinical manifestations. To date, it affects thousands of children between 5-15 years of age in confined geographical areas in southern Tanzania, South Sudan and northern Uganda.

Methods: MEDLINE and EMBASE electronic databases were searched using search terms: nodding syndrome, nodding disease, head nodding and river epilepsy. Ovid interface with a combination of MESH terms and free text words were used. Additional publications were looked for by check of reference lists of all significant primary studies. Both databases were searched on 23rd February 2017 covering the period 1946 to February 2017.

Results: Case-control studies have associated nodding syndrome with a variety of factors, including (i) Infections: *Onchocerca volvulus* in 87.5% of cases compared to 47.8% of controls in South Sudan, and 71.1% of cases compared to 53.9% of controls in Uganda; *Mansonella perstans* (OR 3.2, p 0.005); and debatable associations with a history of measles (significant, inverse, and no association in 3 studies), (ii) nutrition and toxins: deficiency of vitamin B6 (OR 7.2, p 0.001), consumption of mouldy maize (OR 4.3, p 0.009), red/brown sorghum (OR 6.2, p 0.049), emergency food (OR 4.0, p 0.016), (iii) genetic and autoimmune: autoantibodies to leomedin-1 positive in CSF and serum of 52.7% of cases compared to 31% of controls (OR 2.7, p 0.024), (iv) neurodegenerative: brain autopsy of 5 Ugandan children positive for tauopathy.

Conclusions and recommendations: Despite the lack of definite evidence regarding the pathogenesis of nodding syndrome, our review identified onchocerciasis as the potential risk factor. Robust epidemiological and case-control studies are required to explore the factors linking nodding syndrome with onchocerciasis and to identify other possible aetiological factors.



TUABLO41: Integrated models of care for diabetes and hypertension in LMICs: Systematic review and Meta-analysis;
Jeannine Uwimana Nicol¹, Anke Rohwer¹, Taryn Young¹, Charlotte M Bavuma², Joerg J Meerpohl³ | ¹Stellenbosch University, South Africa, ²University of Rwanda, Rwanda, ³University of Freiburg, Norway

In low- and middle-income countries (LMICs), the burden of non-communicable diseases is growing against existing burden of other diseases such as HIV/AIDS. Integrated models of care can help address the rising burden of multi-morbidity and enhance Universal Health care in LMICs. Hence, our aim is to assess the effects of integration of service delivery at PHC level in LMICs.

Randomised controlled trials (RCTs), cluster RCTs, non-RCT, controlled before-after studies and interrupted time series that examine integrated models of care among people with multi-morbidities, of which diabetes or hypertension is one will be included. We will compare fully integrated models of care to stand-alone care, partially integrated models of care to stand-alone care, and fully integrated models to partially integrated models of care. Primary outcomes include all-cause mortality, disease specific morbidity, HbA1c, systolic blood pressure and cholesterol levels. Secondary outcomes include access to care, retention in care, adherence, continuity of care and cost of care. A comprehensive search in the databases (eg. MEDLINE, EMBASE, etc) was performed. A total of 6454 studies were identified of which 13 were duplicates. Selection of studies, data extraction and assessment of risk of bias will be performed independently by two review authors. We will resolve discrepancies through discussion with a third author. A metaanalysis will be conducted if included studies are sufficiently homogeneous. We will use GRADE to determine certainty of evidence.

In light of limited evidence on the provision of integrated care for diabetes and hypertension, and its comorbidity in LMICs, we believe that the findings of this systematic review will provide a synthesis of evidence on effective models of integrated care for diabetes and hypertension and their comorbidities at PHC level. This will enable policy makers to device policies and programs that are evidence informed and organise care to enhance UHC in LMICs.



TUABLO42: Mental health outcomes among children and youth experienced violence in Rwanda; **Jean Damascene Iyamuremye | Rwanda Biomedical Center**

Introduction: Violence against children and young people has devastating long-term mental health consequences. It increases anxiety, depression and can lead to behavioral problems and substance abuse.

Methods: The research involved a sample of 1,182 boys and 1,032 girls aged 13-24 randomly selected to be representative of the wider population. The data collection tool was developed from questionnaires used in several other countries to explore physical, sexual and emotional violence.

Findings: Half of girls aged 18-24 had experienced some form of violence before the age of 18, compared to 65% of males. Four out of 10 girls and six out of 10 boys had been exposed to physical violence. 12% of girls aged 13-17 and 5% of boys reported exposure to sexual violence in the 12 months prior to the survey. 32% of girls who had experienced emotional abuse as children had considered suicide. 47% of boys aged 18-24 who had been sexually abused had experienced mental distress in the past month. Among girls who had experienced unwanted completed sex in childhood, 48% reported unwanted pregnancy as a result. Among girls who had experienced sexual abuse within the past year, 53% had suffered mental distress in the past month and 25% had considered suicide. 41% of boys who had had their most recent incident of sexual abuse within the past year reported experiencing mental distress. 36% girls who had been physically abused in the past year had thought of suicide. 67% of boys who had been emotionally abused in the past year had experienced metal distress.

Conclusion

Violence is having a devastating impact on the mental health of youth and leading to an increased need for mental health services, maternal health care for highly vulnerable children and youth. Stopping this cycle of violence is imperative for the well-being of both children and society at large.



TUABLO43: Community dialogue as precursor for improving access to maternal, newborn and child health services: Sanyu Lyamuzadde project experience in Central Uganda; **James Teba¹, Bigirwa June Patrick¹, Zamzam Yusuf Asianzu¹**
| ¹Amref Health Africa in Uganda

Issue: In Africa, most maternal and newborn deaths occur during and after childbirth, and many of these deaths happen at home, contributing to 1.16 million African newborns deaths each year. Despite apparent absence of single agreed approach of what community involvement is about, there is a broad consensus that communities should be actively involved in improving their own health. The Sanyu Lyamuzadde project used community dialogue as participatory approach to ensure male involvement and community inclusive improvement in quality and access to maternal, newborn and child health services in 15 health facilities in Nakaseke and Kyankwanzi districts and the results were tremendous.

Description: Sanyu Lyamuzadde project engaged multilevel approach involving the community and health-care system. To improve access to services, project trained 650 village health team members (VHTs), 25 healthcare managers, 68 midwives/nurses, and 90 community development officers and health workers (MNCH champions) as facilitating experts in community dialogue meetings composed of. 48 quarterly dialogue meetings were conducted in 15 supported health facilities. Key issues were; inadequate medicines, long waiting time, poor health workers attitude, distant health facilities and preference for traditional birth attendants. Community generated discussions contributed to bi-level advocacy for mothers' shelter construction, solar installation, and functional quality teams. Dialogues enhanced collaboration gradually improving access to MNCH services.

Lessons learnt: Participatory community involvement is critical problem definition and finding tangible and lasting solutions. Building knowledge and skills among frontline health workers is key to community-health facility integration.

Next steps: Scale up of community interventions to benefit underserved communities.

Key words: Community Maternal Health



TUABLO44: Contribution of Community Health Volunteers in Referral of Tuberculosis Patients in Kenya: A Validation; **Eunice Mailu¹, Benson Ulo², Hillary Kipruto³, Jane Ong'ango⁴, Titus Kiptai², Enos Masini³, George Githuka¹, Maureen Kamene¹** | ¹National Tuberculosis, Leprosy and Lung Disease Program (NTLD-P), ²Amref Health Africa in Kenya, ³World Health Organization (WHO), Kenya, ⁴Kenya Medical Research Institute (KEMRI), Kenya

Introduction: Community Health Volunteers (CHVs) contribute in early detection of TB cases, retention on care resulting to achievement of desired health outcomes. In Kenya, the proportion of TB patients referred by CHVs has remained low at 4% for the last five years despite the intensive investment on CHVs. The objective of this study was to determine the actual proportion of notified TB patients referred by CHVs and identify the factors contributing to incorrect recording and reporting in Kenya.

Methods: A cross sectional study of drug sensitive TB patients in intensive phase of treatment in Kenya was conducted between January and April 2017. An electronic questionnaire was used to collect data from targeted 2000 patients. Descriptive, inferential and Multivariate analysis was done to determine the proportions, factors contributing to incorrect documentation and to control for con-founders respectively using SPSS.

Results: Out of the total 1986 patients interviewed, 18% (355) reported to have been referred by CHVs, out of which 88 (24.8%) were notified to the national TB program as referred by CHVs. The level of education, residence and Religion showed statistically significant association with being referred by CHV (p-value=0.001, P-value=0.003 and Pvalue= 0.015 respectively). First point of entry at the health facility was found to be a factor for correct or incorrect recording and reporting with overall incorrect recording of 72%. The Odds of correct recording if TB clinic was the first entry was (1.859 95% CI 1.003-3.446).

Conclusion: The proportion of TB patients referred by CHVs in Kenya is higher than what is usually reported. The greatest loss in documenting CHV referrals is during the transcription of information from the TB facility register to the electronic reporting system (TIBU).



TUABLO45: Implementation of National Health Workforce Accounts to strengthen countries capacity on human resources for health, **Khassoum Diallo¹, Teena Kunjumen¹, Aurora Saares¹, Mathieu Boniol¹ | ¹World Health Organization, Switzerland**

Issues: It is commonly agreed now that health targets of the 2030 Agenda and in particular Universal Health Coverage cannot be achieved without adequate health workforce. It is also widely agreed known that that good data is needed, to develop HWF policies and programmes and monitor national and the global progress.

Description: The WHO launched in October 2017, the National Health Workforce Accounts (NHWA), a system designed for countries to improve availability, quality, and use of data on health workforce through monitoring of a set of indicators.

With the diversity of challenges on health workforce through the health labour market framework, improvement of health workforce data requires the involvement of multiple stakeholders and sectors. WHO provides methodology and a guide to implement NHWA that addresses the multiple challenges.

Lessons learnt: Data available on health workforce have increased in recent years in availability, timeliness and completeness. Additional resources could be used such as labour force surveys, census, and data reported through other mechanisms.

Next steps: Africa faces specific challenges in health data monitoring that will be discussed as well as opportunities with several initiatives on improvement of health workforce data.



TUABLO46: Community health volunteers as champions for LAPM; case of Afya Uzazi, Baringo County - Kenya; **Beatrice Akinyi¹, Marsden Solomon², Richard Tuitoek³, Monica Oguttu¹, Benard Odhiambo¹, Griffin Odindo¹ | ¹KMET, Kenya, ²FHI 360, Kenya, ³Ministry of Health, Kenya**

Description: Kenya's contraceptive prevalence rates (CPR) remains low (58%) with more than half of its counties (25/47) having a CPR lower than the national average. Baringo County, which is Afya Uzazi Program's focus, has a CPR of 41%, with the number of women of reproductive age at 175,200. Cultural practices of communities in Baringo County do not allow use of contraceptives since many children provide security during cattle rustling incidences. The community is patriarchal, thus, the husband is the main decision maker on contraceptive use. Livestock are also prioritized than seeking health services especially when there is no emergency. Providers' attitudes and bias together with lack of training, poor facility infrastructure and sparse distribution of health facilities inhibit access to such services. Through USAID funds, KMET in partnership with FHI 360 and the Ministry of Health (MOH) is implementing "Afya Uzazi" project that employs the community health strategy to increase uptake of long-acting, reversible and permanent methods of family planning.

Lessons: To address the unique needs of the target population, KMET uses five approaches:

Capacity building of community health volunteers (CHVs) in collaboration with MOH; selecting and linking of two super mobilizers to each outreach link facility; demand creation through diverse community forums; facilitating providers to offer services during community outreaches; referring clients to outreach sites. In four quarters, the contraceptive coverage of Baringo County has risen to 31% (in September 2018) from 9% (in October 2017).

Conclusion: Community strategy coupled with provider attitude change has both intrinsic benefits in raising the uptake of family planning in hard to reach areas thereby raising the living standards.

Key words: Contraceptive; demand creation; integrated outreach



DAY 2 - WEDNESDAY

Oral Presentations

WEABO01: Client referral feedback: a community quality improvement initiative to improve facility deliveries at Sanga HC III in SW Uganda; **Mulindwa Alex | Amref Health Africa, Uganda**

Introduction: Despite efforts to improve skilled attendance at the time of birth, only 58.1% of mothers in Uganda delivered at health facilities in 2016/17. Close to 41.9% delivered in the community attended to by unskilled persons including traditional birth attendants (TBAs) and relatives contributing to poor outcomes. In September 2016, there were only two deliveries at Sanga HCIII.

Methods: Utilizing quality improvement (QI) approaches, the USAID RHITES-SW project team supported Sanga HC III to conduct a root cause analysis. Limited awareness of the importance of facility deliveries, lack of a staff duty roster and gaps in respectful care were identified as major factors contributors to the low facility deliveries. Led by the District Health team leadership, the facility staff, Village Health Teams (VHTs) and the Health Unit Management Committees (HUMCs) members formed a community-facility QI team. Midwives developed a duty roster and intensified ANC health education sessions incorporating service user feedback. VHT members were engaged to refer pregnant mothers in the villages for ANC and delivery. Midwives ensured complete documentation of referrals, feedback to the VHTs and conducted service area mapping. QI performance was incorporated in the quarterly HUMC and monthly facility meetings. HUMC members supported advocacy and mobilization for facility delivery in their communities.

Results: Progressive increase in facility deliveries from 5% of the expected deliveries at the facility in September 2016 to 100% in June 2018.

Lessons learnt: Implementing joint community and facility QI initiatives, utilizing community teams to support mobilization and referral for services at the facility and incorporating feedback to the community contributes to improved service uptake. Staff duty rosters and improved teamwork through the implementation of QI initiatives improves staff availability.



WEABO02: Community link desks as a best practice in strengthening community–facility health service delivery: A case study of USAID Nilinde OVC Project; **Brigid Wangila¹, Wycliffe Omanyara¹, Kate Vorley¹ | ¹Plan International, Kenya**

Background: United States Agency for International Development with Government of Kenya (GOK) designed Nilinde (“Protect Me” in Kiswahili), a five-year program ending 2020 to improve the welfare and protection of nearly 150,000 children affected by HIV/AIDS in 6 Counties through direct service delivery, referrals and linkages to other service delivery partners. At project start, Nilinde struggled with follow up, tracking and documentation of referrals made by community health volunteers (CHVs) for health services. It then initiated a community–facility linkage between a health facility and the catchment communities to support improved health outcomes.

Description: In 2016, Nilinde worked with MOH to establish and support community link desks at high volume health facilities to track and document complete referrals to health facilities. A community link desk is a reception area at the entrance of a health facility where CHVs sit to receive patients, give health talks, receive and file referrals and direct patients to the right department. Nilinde trained 1557 CHVs to identify, execute, and track referrals. By June 2018, Nilinde had established 48 active link desks that CHVs operate on rotational basis.

Lessons Learnt: Community link desks have enhanced data collection on referrals, tracking, follow up, and feedback on service delivery. Since establishment, the link desks have tracked 8,650 effective referrals for health services.

Next steps: Nilinde recommends that all health facilities establish Community link desks and promote consistent data review for referrals to inform community engagement and programming.



WEABO03: “It helped us to love our job:” reactions from nurses and midwives to group antenatal and postnatal care in Rwanda; **Sabine Musange | University of Rwanda School of Public Health, Rwanda**

Introduction: The group antenatal care (ANC) and postnatal care (PNC) model implemented by the Preterm Birth Initiative-Rwanda relies on 8-12 pregnant or postnatal women and two facilitators to be present at each group visit; one facilitator is a licensed clinician such as a nurse or midwife, while the second facilitator is a community health worker. The facilitators are responsible to organize the group visit and accomplish health assessments and group discussion of relevant topics with as much participation by the women as possible.

Description: One year after implementing this model at 18 health centers in Rwanda, we convened 3 focus group discussions (FGDs) with 29 nurses and midwives who actively provided group ANC and PNC. We asked about their experiences as group care providers in order to understand how this model may affect job satisfaction in Rwanda.

Lessons Learnt: The prominent theme that emerged from providers during FGDs was that pregnant women who participate in group ANC/PNC strongly influence one another to adopt healthy behaviors by sharing their own real-life stories. While FGD participants reported that group care increases their workload, they also declared that this model actually increases their job satisfaction. This increased job satisfaction seems to result because 1) they feel good when they form meaningful relationships with the women they serve, and 2) they believe the quality of care they provide women is higher in the group care model.

Next Steps: Group ANC/PNC offers women and providers closeness, caring, and community, but in order to successfully scale this model more human resources should be added to each facility that implements it. Additional provider time is required to plan for work schedules that can accommodate group visits, organize pregnant women into groups, and interact meaningfully with women during care.



WEABO04: Innovation for strengthening primary health care delivery in sub-Saharan Africa; **Albert Orwa¹, Caroline Gitonga¹ |
¹Philips East Africa, Kenya**

Background: Primary Health Care is an important part of the healthcare system that helps to reduce complications and hospital admissions through prevention and early intervention. However, there are a number of challenges that are facing primary care such as poor referral system, by pass to higher levels of care and sub-standard quality of services. Philips through collaboration with local government and local communities designed an integrated primary health care solution, Community Life Centre (CLC) which aims at addressing challenges confronting health and health systems in developing markets. The first CLC was deployed in 2014 in Githurai, Kiambu County Kenya, through a modular approach that saw County government invest in infrastructure, staffing and Philips in innovations in energy solutions, health management system and community outreach. Philips supported the routine monitoring and evaluation.

Methods: Performance evaluation of the CLC has been based on the existing frameworks as defined by the WHO and PHCPI- immediate key indicators for the consideration being the service utilization. To evaluate whether the CLC has filled the gaps, analysis of monthly data was done to determine service utilization at different service points including general outpatient, Child Welfare Clinic, Family Planning as well as Maternity services. To evaluate quality of services rendered at the CLC, patient exit interviews were administered to 91 patients.

Findings: Since deployment, utilization of services in out-patient department increased by 30%; child welfare clinic by 250% and antenatal services by over 600%. In addition, increased involvement of community health workers saw improvement of community referrals and early identification of diseases, including non-communicable diseases. From the patient exit interview, 85% of the patients interviewed said to be satisfied with the services offered at the CLC and that they were ready and willing to

recommend the facility to other people. The learnings have since been used to implement and develop other facilities.



WEABO05: Improving Primary healthcare service delivery to the underserved population in Kenya: A case of Points of Care for integrated healthcare services, **Peter Waiganjo | Amref Health Africa**

Background: Amref Health Africa in collaboration with Merck implemented the Points of Care project in Kenya across 5 Counties, for the pilot phase. The project's objective was to improve access and affordability of primary health care services to the underserved population. The "Points of Care" project supported prevention, treatment and reduction of communicable and non-communicable diseases which were on the rise owing to population pressure and lifestyle changes.

Methods: The Points of Care were platforms for integrated primary healthcare services, offering clinical and pharmaceutical services including disease awareness, education and screening. In addition to this, the Points of Care were offering digital health solutions for capacity building and community engagement through registration onto the National Hospital Insurance Fund (NHIF), disease mapping and screening as well as telemedicine. The project leveraged on Amref Health Africa's technology solutions, Leap the mHealth platform for training community health workers and M-Jali the data management solution tool which supported referral services as well patients' data management.

Results: Since implementation phase begun, a number of improvements had been achieved including; increased dissemination of health education and awareness by the community health workers, increased health seeking behavior, increased number of patients seeking healthcare services at the PoC facilities in the target counties, as well as improved access to quality and affordable healthcare services.

Conclusion: Collaborations to create access to quality and affordable primary healthcare services for all was an important step towards sustainable development and in line with the achievement of UHC.



WEABO06: Effectiveness of Competency Based Training for a successful integration of Early Infant Male Circumcision (EIMC) in Maternal Neonatal and Child Health services in Rwanda; **Marie Rose Kayirangwa¹, Augustin Ntakirutimana¹, ²Placidie Mugwaneza, ¹Stephen Mutwiwa, ¹Marcel Manariyo, ¹Eugene Rugwizangoga | ¹Jhpiego, Rwanda, ²Ministry of Health, Rwanda**

Introduction: Since 2008, Rwanda has adopted EIMC as a long-term preventive measures against HIV and sexual transmitted diseases. In 2010, access to EIMC services was limited to King Faisal Hospital; MoH through UNICEF piloted EIMC services in 4 hospitals; SAEs noted at program inception led MOH to suspend temporally the program. In 2015, RBC and UNICEF requested Jhpiego to examine the technical components, support capacity building and implementation in piloted sites. The current study aims to assess effectiveness of competence based training for integration of EIMC services in MNCH services and shows how capacity building of health providers contribute to increase availability of healthcare closer to the community.

Methods: Jhpiego led the development of a learning resource package focused on use of Mogen clamp Device. Cadres eligible for training are medical doctors, nurses and midwives, trainees were selected based on practice of minor surgery or surgical circumcision. Trainings were conducted following CBT approach; Pre and Post-test questionnaire, were used to assess trainees' knowledge. Post-training coaching and mentoring are ensured. A system of quality assurance was introduced according to acceptable set of EIMC standards. Each trainee must perform 25 procedures before certification. Data collected were from client record forms, EIMC registers and program reports.

Results: From 2016 up to January 2019, 75 providers were trained, 16 from the first batch of 24 were trained as trainers and they co-trained subsequent sessions of providers. The average of pre and post-test were 68.6% and 87.1% respectively, which indicate the training improved providers' skills and competency. In total 2,598 infants were circumcised in 11 hospitals. A system of continuous quality improvement was introduced. Only two SAEs of glandular injury were reported.

Conclusions: Competency based training approach combined with follow up and supervision of providers is cornerstone for successful integration of EIMC in MNCH services.



WEABO07: Projected Cervical Cancer Incidence in Swaziland using three Methods and Local Survey Estimates; **Themba Ginindza | University of KwaZulu-Natal, South Africa**

Background: The scarcity of country data (e.g. a cancer registry) for the burden of cervical cancer (CC) in low-income countries (LICs) such as Swaziland remains a huge challenge. Such data are critical to inform local decision-making regarding resource allocation. We aimed to estimate likely cervical cancer incidence in Swaziland using three different methodologies (triangulation), to help better inform local policy guidance regarding likely higher “true” burden and increased resource allocation required for treatment, cervical cancer screening and HPV vaccine implementation.

Methods: Three methods were applied to estimate CC incidence, namely: 1) application of age-specific CC incidence rates for Southern African region from GLOBOCAN 2012 extrapolated to the 2014 Swaziland female population; 2) a linear regression based model with transformed age-standardized CC incidence against HR-HPV (with and without HIV as a covariate) prevalence among women with normal cervical cytology; and 3) a mathematical model, using a natural history approach based on parameter estimates from various available literature and local survey estimates. We then triangulated estimates and uncertainty from the three models to estimate the most likely CC incidence rate for Swaziland in 2015.

Results: The projected incidence estimates for models 1-3 were 69.4 (95% CI: 66.7-72.1), 62.6 per 100,000 (95%CI: 53.7-71.8) and 44.6 per 100 000 (41.5 to 52.1) respectively. Model 2 with HIV prevalence as covariate estimated a higher CC incidence rate estimate of 101.1 per 100,000 (95%CI: 90.3-112.2). The triangulated (‘averaged’) age-standardized CC incidence based across the 3 models for 2015 was estimated at 69.4 per 100,000 (95% CI:63.0-77.1) in Swaziland.

Conclusion: It is widely accepted that cancer incidence (and in this case CC) is underestimated in settings with poor and lacking registry data. Our findings suggest that the projected burden of CC is higher than that suggested from other sources. Local health policy decisions and decision-makers need to re-assess resource allocation to prevent and treat CC effectively, which is likely to persist given the very high burden of HR-HPV within the country



WEABO08: Experiences, challenges and lessons learnt in the development of KEMRI research visualization dashboard; **Gikuni Margaret¹, Kariuki James¹ | ¹Kenya Medical Research Institute Center, Kenya**

Introduction: Research publications visualization represents a paradigm shift in knowledge management (KM) and knowledge transfer (KT). Visualization dashboards provide adaptable, available and cost efficient data options. Data visualization deployed using customized online dashboards have had rapid growth worldwide. Adoption of this technology for supporting KM and KT in research institutions in developing countries is limited with little documentation. Study objective was to document experiences, challenges and lessons learnt in development of KEMRI's research publications visualization dashboard.

Method: Research publication visualization done by developing website pages using JoomlaTM web authoring tool, an open-source content management system (CMS). PHP codes added into the CMS backend, Content Map which contained plugins and module for JoomlaTM helped insert Google Maps into frontend. COMODO SSL certificate which generates the URL over HTTPS created a secure channel over an insecure network thus protection against intruders, ensuring server certificate is verified and trusted. For data mining, MESH search terms used to locate previous publications from online and offline database. These publications classified into geographical zones where research was conducted. For data analytics, grouping publications done using key parameters namely disease domains by county. Summary-of-finding tables developed, graphs and trend lines drawn using Excel and posted to dashboard as static JPEG images.

Lessons Learnt: KEMRI website was hosted by KENET a contracted ISP, stable internet connectivity through fiber connectivity at transfer rate of 70Mbps was adequate for deployment of the KM platform. Availability of a KM multi-disciplinary team who supported the back-end processes. KEMRI had strong institutional policies that support KM and KT.

Challenges: JoomlaTM complicated to customize as a KT platform, compatibility between some plugins made it frustrating to get some functionality working and required extensive PHP coding. Some analytical graphs and summary-of-finding narrative tables could not be supported on the dashboard. Limited funds to purchase high performing ICT hardware and software specific to data visualization.



WEABO09: Innovative district driven approaches to improving the quality of malaria data in Buhweju district in Uganda
**Akot Grace¹, Mugwanya Edward², Turyasingura Wycliffe³, Ndagire Kisakye Gloria¹, Kagurusi¹, Mugaya Julius² |
¹Amref Health Africa, Uganda, ²Egpath, Uganda ³Uganda local government**

Introduction: The Uganda Malaria Reduction Strategic Plan 2014-2020 requires the District Health Offices to report routinely and timely on malaria performance. However, several districts in Uganda are still short of this requirement, and the quality of reported data is deficient. Since 2015, Buhweju district has applied innovative approaches to improve the quality of malaria data. We present how this has improved the quality of malaria data in the district.

Methods: Weekly and monthly malaria favorite folders were created in the DHIS2 to ease data extraction and analysis. After every data extraction, malaria data validation rules were applied to assess the quality of data. Sites with data quality issues were contacted for validations, and corresponding data cleaning done in DHIS2. Basing on the identified gaps, follow-on site mentorships and support supervision were conducted. Subsequent analyses focused on mentored sites to affirm if there is performance improvement. Malaria technical briefs were prepared and shared every after data analysis for review by the district health team.

Results: Routine identification, verification and correction of weekly malaria data ambiguities reported in OPD was done. Malaria data displacement in DHIS2 as result of reporting 9 instead of 10 malaria variables of the malaria cascade was identified and rectified. Weekly reporting rate improved from 68.6% to 94.7%, the proportion of suspected fevers tested from 36% to 92%, and a reduction in variance between laboratory positives tested and confirmed malaria cases reported from 61% to 5%. The number of "not tested" and "negative cases" treated reduced from 2919 to 68.

Conclusion: Routine identification, verification and correction of weekly malaria data ambiguities is critical for attainment of good quality data and timely reporting. District Health Team leadership in spearheading the development of district specific innovations to improve data quality is key to success.



WEABO10: Enhancing and visualizing health data through geography; **Paula Kiura¹, Jasper Grosskurth¹ | ¹Dalberg Research, Kenya**

Background: Sub-Saharan Africa is experiencing an accelerated population growth putting pressure on already scarce health resources. Approximately 1.6 million Africans died of treatable illnesses in 2015. Diseases like Malaria and Tuberculosis can be prevented with timely access to appropriate and affordable health services. A paradigm shift is needed to address existing inequalities in health systems. Especially marginalized populations feel the impact of a shortage of health professionals and high mortalities and morbidities. This paper looks at how GIS technology can be used to transform how health care is delivered in Kenya and ultimately, Africa. The main objective being; giving more people in remote areas access to better care. Health mapping of population subgroups can supplement governments and stakeholder's health intervention efforts.

Methodology: Spatial distribution of health facilities is critical to health planners. Offering the right health care solutions in the wrong place leads to wasted resources. At Dalberg Research, we have built a comprehensive geo-spatial database, called LOCAN. It contains more than 10,000 health facilities, as well as demographic, socio-economic and topographical information for all of Kenya. We cross-analyzed the location data for health facilities with all the contextual variables at our disposal to understand what drives the presence of a health facility. This also tells us why marginalized people are often excluded from easy access to health-care.

Results: Production of visually illustrative maps that indicate in which geographical areas disparities exist. LOCAN can indicate capacity for service delivery by mapping marginalized populations and disproportionate allocation of health resources.

Conclusion: GIS mapping bridges geographic patterns and data correlations to re-understand existing health care questions. Used in combination with multi-level spatial analysis, it allows stakeholders to identify multiple factors contained within data and to study the interrelationships between those factors. Ultimately, this should lead to better targeting of health-related resources.



WEABO11: Community health worker attrition in Uganda: A case study of Living Goods; **Nathan Tumuhamy¹, Abubaker Kalule¹, Enock Tusingwire¹, Peter Kaddu¹ | ¹Living Goods, Uganda**

Background: The use of community health workers (CHWs) has been identified as one strategy to address the growing shortage of health workers, particularly in low-income countries. In Uganda, Living Goods (LG) trains and deploys a network of CHWs, working as independent agents within their communities. Through its CHWs, Living Goods provides door-to-door community health services, including diagnosis and treatment of childhood diseases, pregnancy and newborn check-ups, education on health and nutrition practices, and referral of severe cases to qualified facilities through the use of our Smart Health app. One of LG's biggest challenges is replacing CHWs who drop out, especially because there is not much information available about CHW attrition and its drivers. The purpose of the study was to analyze the rate of attrition and its drivers among CHWs recruited by LG.

Methods: We compiled data on CHW activity, performance, and characteristics for all LG CHWs recruited in 2016 and 2017. The analysis was done using binary logistic regression.

Results: For every 1000 CHWs graduated, LG lost 153 by one-year post-graduation. Results showed that CHWs who start off as low performers are four times more likely to drop out compared to high performers, young CHWs (below 35 years of age) are three times more likely to drop compared to the older ones, and CHWs that work in urban areas are twice more likely to drop compared to those in rural areas.

Conclusion: Organizations running CHW programs should recruit individuals above 35 years of age, put in place mechanisms to motivate CHWs working in urban and peri-urban areas, and ensure CHWs are well motivated to perform from the start of the program as to reduce attrition.



WEABO12: Triangulation of health workforce data: Comparisons help improving data quality; **Mathieu Boniol¹, Alan Ibeagha¹, Lihui Xu¹, Aurora Saares¹, Teena Kunjumen¹, Khassoum Diallo¹ | IWorld Health Organization, Switzerland**

Background: While data on health workforce have historically been scarce and with quality challenges, recent data show improved completeness and timeliness. Several sources of data are now available to measure the same indicator such as stock of health workers. Instead of selecting arbitrarily one data sources as gold standard, triangulation exercise might help improving data quality.

Methods: From data reported by countries through the National Health Workforce Accounts, independent data searches on report on health workforce, use of labour force surveys and census data, a triangulation of the density of nursing and midwifery personnel expressed per 10,000 population was conducted for selected countries in Africa and other part of the world.

Results: Several reasons for divergences between sources were identified. The sample size of surveys, for example the density of nursing and midwifery personnel in Angola for year 2011 was estimated as 1.1 (95%CI 0.6-1.7) from 15 individuals in survey while data from ministry of health for 2009 was 14.4. In other case, despite small numbers the estimation from survey proved accuracy such as in Nigeria in 2013 the density estimated was 14.4 (95%CI 10.4-19.5) from 42 individuals in the survey while national estimate for 2008 was 14.8. Discrepancies could come from lack of completeness. For example, in Ghana the density of stock was estimated at 16.4 (95%CI 13.5-19.7), this result was not comparable with national statistics with a density of 10.5 until a correction factor was applied to correct the absence of private sector data in national statistics giving a density of 15.6.

Conclusions and recommendations: This triangulation exercise showed that several data source have their advantage to help validation of reported statistics on health workforce. It also help discussing strengths and weaknesses of sources in particular assessing: completeness, coverage, timeliness, comparability.



WEABO13: What matters in health facility performance in Performance-Based Financing: a multiple case study analysis of health centres in the South West Region of Cameroon; **Ako-Egbe Louis | Ministry of Health, Cameroon**

Background: Performance-Based Financing (PBF) has been adopted by many sub Saharan African countries in recent times on the premise of improving health care indicators. Very few studies have investigated the reasons for the non-uniform performance of health centres (HCs) implementing PBF. Our study sought to investigate the context and health system factors which differentiate good and poor performing HCs piloting PBF in the South West Region of Cameroon.

Methods: A multiple case study approach in which we compared three good-performing and three poor-performing HCs implementing PBF in two Health Districts. A modified HRITF framework was applied to documentary data and used to identify and summarise HC characteristics. Differentiating factors were analyzed under five themes: context, health system, PBF design and implementation, socio-political factors and internal service organization. Truth tables and Qualitative Comparative Analysis were used to analyze the sufficiency of factors for performance.

Findings: Our findings suggest that good-performing HCs are differentiated from poor performing ones by their target population, number of skilled staffs, leadership and internal management skills of the managers and the extent of stakeholder support. The analysis revealed that no single factor, nor a combination of these, was sufficient for a HC to perform well in PBF. However, a combination of a large target population, adequate skilled workforce, effective leadership and service organizational skills by the manager were necessary conditions for a centre to perform optimally in PBF, with or without community support. A deficiency in all factors was sufficient for poor performance.

Conclusion: For an effective implementation of PBF stakeholders should consider the above differentiating factors. The government should redistribute HCs and invest in the health workforce. Moreover, HC managers should ensure the timely implementation of recommendations made by supervisors, and engage with community stakeholders. There is need for more in-depth empirical studies to reveal further factors



WEABO14: Making sure the Global Financing Facility is accountable to community needs; **Patricia Doherty¹, Joyce Kyalo¹, Amy Jackson¹ | Options**

Issue: The Global Financing Facility mechanism aims to close the funding gap for reproductive, maternal, newborn, child and adolescent health and nutrition (RMNCAH-N) by bringing together funds from multiple sources. However, it is often accused of ignoring the role of civil society and lacking transparency around how funds are used to further outputs and outcomes.

Description: Evidence for Action-MamaYe (E4A) has supported novel approaches to share and translate knowledge in ways that support increased civil society participation in the GFF and greater accountability around how the mechanism is being implemented in country for the achievement of health outcomes. In 2017, E4A supported a coalition of civil society organizations (CSOs) in Kenya – The Health NGOs network, HENNET – to develop innovative ways to share and translate complex information in GFF investment cases, financing strategies and governance guidance. These included: i) the Investment Case Brief, which neatly summarises what the GFF is, why Kenya needs the investment, who will benefit from the GFF, how the money will be used and its expected impact; ii) An innovative GFF Country Accountability Scorecard, which tracks GFF progress and is used to facilitate dialogue among key stakeholders and civil society to ensure decision-makers are held to account for their RMNCAH commitments.

Lessons Learnt: The GFF Investment Brief and Country Accountability Scorecard are important because they equip stakeholders, including civil society, with the necessary knowledge and tools to engage in GFF discussions and ensure health policies, budgets and expenditures respond to community health needs.

Next Steps

We continue to support the process in Kenya and have expanded to support civil society coalitions in Tanzania, Uganda and French speaking Africa to engage in the GFF process.



WEABO15: The price of reaching middle income status: Sustaining households protection from paying the bill in Rwanda;
Jacob Hughes¹, Richard Butare¹ | ¹Management Sciences for Health, Rwanda

Issue: As Rwanda is on the path to achieve middle income status in the next few years (National Strategy for Transformation 2017-2024), the current decline in external funding is likely to accelerate and require equivalent increases in domestic spending on health. If the Government does not increase health spending accordingly, the resulting funding gap will likely be filled by increased household spending, disproportionately affecting the poor and deterring people from accessing healthcare they need.

Description: As domestic revenue collection has improved in Rwanda and the total national budget has grown, the budget allocated to health has increased slightly in absolute terms. However, as a share of the total budget, the health sector actually declined between FY 2015-16 to 2018-19 from 11.3% to 8.2%, with nearly half of the reduced budget allocation to health funded by external sources. The financing gap resulting from the projected decline in external funding can only be bridged with policies that aim to increase domestic allocation to health, if the country is to deter increased household spending - estimated in Rwanda at 19% of total health spending (8% out-of-pocket and 11% through insurance). Further increases in household spending will threaten financial protection and Rwanda's goal of achieving UHC.

Lessons learnt: Rwanda's situation is not unique. Many sub-Saharan countries have experienced similar crowding out of government spending by external sources and, as these sources decline, governments are unable to increase their health sector spending at the same rate. The resulting funding gap is often filled by increased household spending.

Next steps: Increase communication between the health sector, parliament and the public about domestic funding requirements associated with achieving middle income status; Plan gradual increases in Government spending on health to avoid abrupt, unaffordable increases; Ensure financial safety nets are in place to protect the poorest of the poor from increased out-of-pocket spending on health



WEABO16: Measuring managerial accountability in primary health care in Ethiopia; **Tibebu Benyam¹, Assefa Ayede¹, Kidest Nadew¹, Nasir Ali¹, Erika Linnander¹ | ¹Yale GHIL, Ethiopia**

Issues: Bottom-up managerial accountability, including the extent to which managers are accountable to staff and the extent to which each unit of the health system is accountable to the unit below, is a hallmark of primary health system performance. However, we lack practical approaches to measuring and promoting this accountability. In response, Ethiopia's Federal Ministry of Health, with support from the Primary Healthcare Transformation Initiative (PTI) developed and tested a framework for measurement and improvement of managerial accountability in primary care (MAP). We describe the results of a MAP field test to explore relevance and acceptability of the approach, face validity and sensitivity of the measures, and feasibility of administration.

Description: The MAP tool includes 33 indicators of accountability practice across five domains: transparency in communication, inclusiveness in decision making, performance management, stakeholder engagement, and responsiveness to requests and grievances. Stakeholders rate and provide feedback to their supervisory organization. Two approaches for MAP administration were tested across levels of the health system (from health extension to regional offices) across four regions, engaging 322 participants in scoring and subsequent debrief on their experiences.

Lessons Learnt: In this first snapshot of accountability practices, the mean MAP score was 63.2% (± 14.7), including domain scores for inclusiveness in decision making 65.5% (± 15.3), stakeholder engagement 65.2% (± 17.9), performance management 63.9% (± 15.8), transparency 63.8% (± 15.8), and responsiveness 57.8% (± 18.9). The tool was sensitive to variation across regions and levels of the health system. Participants provided robust descriptions of the face validity, relevance, and acceptability of the tool, and gave targeted feedback to add value and promote integration with existing performance management processes.

Next Steps: The resulting tool and implementation supports will be presented for national endorsement, roll-out, and inform efforts to promote measurement and management of accountability practices.

Key words: accountability, Primary Health Care, community engagement



WEABO17: Double pressure advocacy, does it work? a case study of health systems advocacy partnership project in Kenya
Happiness Oruko¹, Dorcus Indalo¹, George Oele¹ | ¹Amref Health Africa, Kenya

Issues: The Health Systems Advocacy Partnership (HSAP) is being implemented at the national level and in four counties: Narok, Kajiado, Homabay and Siaya. The project goal is to enable communities realize their right to the highest attainable sexual and reproductive health. This abstract showcases the project outcomes on the strengthened space for civil societies and communities to; engage effectively with governments and other stakeholders accountable for health systems, to deliver equitable, accessible and high-quality Sexual and Reproductive Health services.

Description: The project trained 72 legislators on policy legislation process and held lobby meetings for enactment of community health workers (CHWs) bills. Four Counties developed CHWs bills and at the national level, a draft CHW bill was developed for introduction in parliament. The project trained 41 CSOs on the budget making process, Family Planning (FP) Smart Advocacy. The CSOs mobilized citizens in June 2018 for public participation on budget reviews. They advocated to the county governments for an increase in budget allocation of FP, as well as itemization and ring fencing of the health budgets in respective counties. Kajiado County together with CSOs developed and launched the FP costed implementation plan and for the first time allocated \$ 20,000 for FP in 2017/2018. The project also engaged the media and trained 20 journalists on effective media reporting. A media network was formed which mainstreams health reporting.

Lessons Learnt: Building the capacity of legislators enables them to understand the policy process, whilst using multi-stakeholder networks with CSOs enables stakeholder buy-in. Media engagement creates awareness on the advocacy issues. In addition, when effectively empowered communities will champion and demand for their sexual and reproductive health rights.

Next Step: Continuous lobby and advocacy on HSAP thematic areas at county and national level and link progress made in Kenya with regional and global HSAP contexts



WEABO18: How CSOs Can Engage in Country-Level UHC Processes: Zambia Case Study; **Lethia Bernard¹, Amos Mwale²**
¹PAI, Zambia, ²Centre for Reproductive Health and Education, Zambia

Issues: To realize Zambia's goal of achieving universal health coverage (UHC), the government of Zambia is introducing a nationwide, compulsory social health insurance scheme as a new financing structure to increase access to quality health services. The National Health Insurance Act was passed in April 2018, and with implementation set for early 2019, and the policy process in between has been fast-moving, with minimal health CSO engagement in health financing reform discussions. CSOs can be constructive partners and complement government efforts in UHC-related health reform processes and implementation, especially given their crucial accountability role.

Description: In Fall 2018, PAI and the Centre for Reproductive Health and Education (CRHE) convened a group of CSOs and other stakeholders in Zambia to: Explore ways of ensuring Zambia's UHC financing reforms advance sexual and reproductive health and rights, including family planning; Provide capacity building on technical health financing reforms in support of UHC, review the National Health Insurance Scheme (NHIS) legislation, policy process and implementation timeline; and identify opportunities for CSO engagement; and Develop advocacy strategies and activities based on the prioritized list of CSO engagement opportunities in the remaining NHIS decision-making timeline both pre- and post-2019 implementation.

Lessons Learnt: Following the initial capacity building and advocacy strategy session among SRHR CSOs, medical association, academic stakeholders, the collective advanced an action agenda for CSO engagement opportunities with policymakers through follow-up meetings with a broader network of health CSOs and the Ministry of Health. Since Fall 2018, they have been included in decision-making discussions and consulted by the Ministry of Health to identify activities to lead in the NHIS implementation process. Next steps include sharing lessons learned with CSO networks in other African countries implementing UHC-oriented health financing reforms, as well as replicating the capacity building and advocacy strategizing model to strengthen CSO UHC engagement.



WEABO19: The path to Universal Health Coverage: Comparing Progress in Ghana and Rwanda; **Jacob Alhassan¹, Oghenebrume Wariri², Michele Castelli³ | ¹University of Saskatchewan, Canada, ²London School of Hygiene and tropical Medicine, The Gambia, ³Newcastle University**

Background: The inclusion of Universal Health Coverage (UHC) to the Sustainable Development Goals (SDG 3.8) demonstrates renewed global interest in ensuring that all people have access to a basic set of health services without suffering undue (financial) hardship. We comparatively analyzed progress towards UHC in two relatively well performing African countries, Ghana and Rwanda

Methods: We compared progress of both countries in terms of levels of financial protection (levels of Out of Pocket Payments, catastrophic and impoverishing health expenditure), population coverage and service coverage. We conducted searches of key terms such as “financial protection”, “service coverage”, “catastrophic health expenditure”, “Impoverishing health expenditure”, “Out of Pocket Payments”, “Ghana National Health Insurance Scheme”, “Mutuelles de Santé” “Ghana” and “Rwanda” on Ovid, PubMed, Medline, Embase and Google Scholar.

Findings: For financial protection we found that up to 37% of total health expenditure came from out of pocket payments in Ghana compared to 18% in Rwanda which is below the WHO benchmark of 25%. Catastrophic health expenditure stood at 0.6% in Ghana compared to 5.1% in Rwanda. Population covered under the NHIS in Ghana stood at 40% compared to 96% in Rwanda. Rwanda has also made significant progress in services covered as almost all diseases are covered compared to Ghana’s NHIS which covers 95% of the disease burden.

Conclusion: Rwanda’s Mutuelles seem more effective in relation to the selected UHC indicators. Rwanda uses innovative systems such as the ‘Ubudehe’ for identifying the indigent and a performance-based payment model for providers which Ghana’s NHIS could perhaps consider as opposed to the current approaches used. More research needs to be conducted to understand why countries like Rwanda have made more progress than others like Ghana on these indicators.



WEABO20: Trust in government, quality of democracy, and willingness to pay more tax to fund public healthcare: A Multilevel Regression Analysis of Southern Africa Development Community (SADC) Member States; **Jack Chola Bwalya | University College Dublin (UCD), Ireland**

Introduction: There is a consensus that providing quality healthcare is one of the biggest challenge that contemporary African countries face. For Africa to develop and to achieve economic, political, and sustainable development, African governments will have to prioritise spending on health as a cornerstone of their national development. To date, there is encouraging initiatives within Africa in this regard with the recent commitments made by the African Union (AU) member states to annually apportion at least 15 % of their national budgets to health and health care. However, the current spending data shows that this goal is not been achieved. This paper argues that if African governments could collect more tax from within their national borders, it may be possible to spend more on health. But the question we want to answer is: are people willing to pay more tax to fund public healthcare? This paper empirically examines factors that influence people’s willingness to pay (WTP) more tax to fund public healthcare in 12 Southern African Development Community (SADC) member states.

Methods: Data from Round 6 of the Afrobarometer survey was used. Using multilevel regression models, we examined what extent micro individual level factors like trust in government and socio-economic factors as well as macro country level factors such as, quality of democracy, Gross domestic product (GDP), life expectancy and population health influence peoples’ WTP more tax to fund public healthcare.

Results: This study revealed that trust in government is an important determinant of peoples’ willingness to pay more tax to fund public health care. Other factors that we found significantly determine WTP include education, and place of residence. However, our analysis also found that WTP more tax to fund public healthcare is not determined by country level factors.

Key words: Africa, Healthcare, Southern Africa Development Community [SADC], Willingness to Pay-WTP, Trust in government



WEABO21: Rethinking health financing in Africa: Impact of demographic-, governance-, and economic-related factors on government health expenditure; **Babayemi O Olakunde¹, Daniel A Adeyinka¹, Olubunmi Olakunde², Tolu Oladele¹, Sabastine Wakdok¹ | 1National Agency for the Control of AIDS, Nigeria, 2Ondo State Primary Health Care Development Board, Nigeria**

Background: While aggregated government expenditure on health has increased over the years, previous assessments have indicated that few African countries allocate up to 15% of their annual government expenditure to health, as pledged in the 2001 Abuja Declaration. This study examined factors associated with government health expenditure in Africa.

Method: This study was an ecological cross-sectional analysis of secondary data obtained from the World Health Organization, World Bank, and United Nations Development Programme. The dependent variable was government health expenditure (GGHE) as percentage of general government expenditure (GGE) in 2015 and the explanatory factors were: gross national income (GNI) per capita (Atlas method), control of corruption (percentile score), political stability and absence of violence/terrorism (percentile score), voice and accountability (percentile score), human development index (HDI), cause of death, by non-communicable diseases (% of total), population ages 65 and above (% of total), and rural population (% of total population). Spearman's rho correlation and multivariate median regression were performed. P-value \leq 0.05 was considered statistically significant.

Results: Forty-nine countries were included in the analysis. The median GGHE as percentage of GGE was 6.3% (IQR 4.2-10%). Only 3 (6.1%) countries allocated \geq 15% of their GGE to health in 2015. GGHE as percentage GGE coverage had statistically significant positive correlations with control of corruption ($r=0.35$, $p=0.014$), political stability and absence of violence/terrorism ($r=0.29$, $p=0.046$), HDI ($r=0.34$, $p=0.017$), and non-communicable diseases (percentage of total cause of death) ($r=0.36$, $p=0.012$). None of the factors remained significant in the multivariate analysis.

Conclusion: GGHE as percentage GGE in 2015 was sub-optimal in most of the African countries included in our study. In addition to improving governance and economy, countries particularly with middle and high income, older population-age structure, and higher rural population need to increase their GGHE towards achieving universal health coverage in Africa.



WEABO22: Tracking Nigeria's glacial progress towards universal health coverage; **Oghenebrume Wariri^{1,2}, Jacob Albin Korem Alhassan³, Robert Yates⁴ | ¹London School of Hygiene and Tropical Medicine, The Gambia, ²University of Aberdeen, Scotland, United Kingdom, ³University of Saskatchewan, Canada, ⁴Centre on Global Health Security, United Kingdom.**

Background: The road towards Universal Health Coverage (UHC) for Nigeria is proving to be an uphill task. After over a decade of implementation of its aspirational National Health Insurance Scheme (NHIS), aimed at driving progress towards UHC, coverage is abysmally at 4% of its 198 million population. Our aim was to measure Nigeria's progress towards UHC since the implementation of its NHIS.

Methods: We use the benchmarks of the WHO/World Bank monitoring framework for progress towards UHC and the Chatham House framework for health financing to measure financial risk protection, and access to essential health services in Nigeria. We systematically searched, PubMed, MEDLINE, EMBASE and Google scholar for empiric English literature. Search terms were; UHC, financial protection, catastrophic health expenditure, financial coverage, health service coverage, health utilisation, out-of-pocket expenditure (OOP), NHIS, and Nigeria between 2005 -2018. We supplemented with secondary data from the websites of the WHO, the World Bank, the NHIS, and the National Population Commission of Nigeria.

Results: There was poor progress of coverage of financial protection for essential health services despite the implementation of NHIS. Between 6.6% and 62.2% of Nigerian households experienced Catastrophic Health Expenditure. OOP as a percent of total health expenditure ranged from 69-99% (against the WHO benchmark of 20%). Government Health Expenditure as a percentage of Gross Domestic Product (GHE/GDP) over the past decade ranged from 0.45% to 0.85% and lagged significantly behind the recommended benchmark of 5%. Access to a skilled attendant at delivery ranged between 43-46%, below the recommended benchmark of 80% by the WHO and World Bank, with significant equity gaps determined by rurality and being in the poorest quintile.

Conclusions: In this SDG era of 'leaving no one behind' Nigeria's slow progress towards UHC is leaving the most vulnerable populations behind, further limiting their life chances.



WEABO23: Developing an accountability framework for tracking policy implementation; **Yolanda Moyo¹, Taonga Chilalika¹, Katelin Gray¹, Tanya Lalwani¹ | ¹PATH, South Africa**

Introduction: In countries across Africa, governments adopt policies and make commitments that have the potential to transform the health of the population. However, progress stagnates from a lack of follow through on implementation and investment. PATH developed an accountability framework for policy implementation. Advocates can use this framework to analyze policies, track implementation progress, and design accountability initiatives.

Description: The Framework outlines three domains that influence policy implementation: inputs (e.g. funding, resources, information systems), activities (e.g. implementation planning, training), and enablers (e.g. supportive legal frameworks, leadership). The framework can be adapted for different policies and helps users distill the key activities needed in policy implementation. A user guide encourages fact-finding and “rating” against a selected number of indicators.

The South African Health Technologies Advocacy Coalition (SAHTAC) used this framework to track implementation progress of 2016 legislation that established the South African Health Products Regulatory Agency (SAHPRA), an independent body responsible for regulating medicines and clinical trials. Through SAHPRA, the government committed to addressing backlogs in product application and approval processes, which delay access to lifesaving medicines.

Lessons learnt: When policies are adopted but not adequately implemented civil society organisations can be powerful in demystifying said policies, tracking commitments, and mobilizing the public to hold leaders accountable. Advocates know the importance of accountability, but it is often difficult to identify entry points for advocacy in dense, complex policies. This framework, coupled with capacity building on regulatory advocacy, has given coalition members a systematic way to break down a policy into 10 actions governments can take for successful implementation.

SAHTAC will continue to document commitments and follow-up for a second year assessment using baseline scorecard data.

Next steps: Ongoing initiatives include introducing this tool to advocates who are interested in tracking policy implementation as part of their accountability activities.



WEABO24: Strengthening referral systems using Village Health, Savings and Loan Associations among youth and Women's Groups in Amuru District in Northern Uganda; **Stephen Mutinyu | Amref Health Africa, Uganda**

Issue: In Amuru District, many households and young people face challenges while accessing health services. These challenges included long distances to health centres (54.4%) and high cost of transport to health centres (38.7%), inadequate drugs at health centres (35.9%) and lack of funds for treatment (29.6%). The district also lacks a functional ambulance for transporting patients from remote rural areas to the health facilities. As a result of these challenges, the percentage of young people accessing SRHR services like skilled deliveries, ANC, PNC and family planning services is still low.

Best Practice: In order to address the challenge of low utilization of SRHR services due to lack of funds for treatment and lack of transport funds to access these services, Amref Health Africa in Uganda through its Strengthening SRHR Project in Amuru District was supporting women and youth groups to organize themselves into Village Health Saving Loan Associations (VHSLA) to improve their household income and be able to save for health. The groups were provided with seed monies as a start-up package to run the groups and to encourage members to save for health. The funds are loaned out to a group member to facilitate group members' referral and transportation to health facilities for MNCH/SRHR services like ANC, skilled deliveries, ANC and family planning services.

Lessons Learned: Since Uganda lacks an official health insurance scheme, it is important to organize community members into groups with the main objective of saving for health. This will go a long way in addressing the challenges of access to health facilities due to lack of funds to meet the high transport and drug costs as well as long distances to the health facilities.

Next Steps: The government and development scheme should consider using VHSLAs to promote utilization of health services among the rural and peri-urban poor.



WEABO25: Achieving low cost access to basic sanitation to improve health; **Muhuza Imelda**, **Manasseh Wandera** | **SFH, Rwanda**

Issues: Health and sanitation is share a spatial and temporal relationship and, must be collectively recognized as both requirements for sustainable development. Lack of linkage between sanitation and health result into poor progress of UHC targets such as maternal and child health development (Making Health a Right for all: UHC and WASH March 2014). Repeated diarrheal episodes in childhood are responsible for stunting. The leading childhood killers can be reduced through better hygiene practices. People with sanitation related diseases fill hospital beds in developing countries. Understandings this integration could improve sanitation conditions as a core part of effective UHC.

Description: The Ministry of Health UNICEF and Society for Family Health(SFH)Rwanda, entered into partnership to reach the vulnerable people in the selected areas and contribute to the reduction of diarrhea and stunting among children under five. Expected Outcomes was to increase 10% of households using basic sanitation (250,000 people) in 10 districts.

The methodology used was to shift how we have been implementing through NGO-led project teams to District-led approach and build capacity of local government leaders to directly implement and monitor the project. Activities included; skills building for local masons, sustainable supply chain provision of direct support to vulnerable Households. Since the project start (July 2017) to date, the district data indicates that 91% of households are using basic hygienic latrines in 7 out of 10 districts. The households directly supported with subsidy (8,667) triggered approximately 68,487 households to construct new or upgraded their latrines to have a solid hygienic slab, hence a change of 10.8%.

Lessons Learnt: District-led implementation approach proved to be more effective way of fast tracking activities, easy implementation and monitoring impact

Next Steps: Document success and share it with partners, stakeholders for possible scale

Key Words: Access to Basic Sanitation; Local leaders; Low cost investment



WEABO26: Promoting the rights of prisoners to tuberculosis care and prevention in Kenya; **Tabitha Abongo | Amref Health Africa, Kenya**

Background: The TB pandemic in prisons is a serious human rights issue. Prisoners should enjoy the same standards of health care available in the community without discrimination on the grounds of their legal status. Prisons are often high-risk environments for TB transmission because of severe overcrowding, poor nutrition, poor ventilation and limited access to health care. A retrospective study based on data from death registers in 13 Kenyan prisons found TB to account for up to 30% of the mortality. WHO recommends improving TB situation in prisons through increasing capacities of prison staff and collaborative activities to improve access to health services. In 2016 Amref received funding from Global Fund to conduct TB prevention and care interventions in 15 high volume prisons.

Method: Amref supported training of 376 prison wardens and 75 Health Care Workers from prison facilities on a comprehensive service package including TB screening upon entry to prisons, health education and management of TB patients. The wardens screened inmates at admission to prisons, peer educators (inmates) continuously offered TB health education, infection prevention messages and referred coughers to health facilities for diagnosis. Quarterly outreaches to screen and refer inmates with TB signs and symptoms were conducted and identified cases promptly initiated on treatment thus reducing transmission in prison settings.

Results: Between January 2016 and December 2017 TB screening at admission was consistently done. In addition, 74 outreaches and TB screening were done in 15 prisons. Of the 16,174 prisoners screened, 4,202 (25%) were presumptive and 138 (3%) diagnosed with TB and initiated on treatment. Of the 75,706 and 85,188 TB patients notified by the National TB program in 2016 and 2017 respectively, 2% were from prisons.

Conclusion: Improving TB prevention and care in prisons lead to prompt diagnosis and initiation of treatment thus promoting prisoners right to health.



WEABO27: Prioritizing Life-Saving Treatment initiatives for under-five children through Community Volunteers in hard to reach Communities Benue state, Nigeria; **Anne Adah-Ogoh¹, Nanlop Ogbureke¹, Aniekan Udoh¹, Justice Adaji¹, Fwangshak Guar¹, Sylvester Azike¹ | ¹Christian Aid, Nigeria**

Issue: In developing countries more-than 65% of early child deaths are due to preventable conditions, however health worker shortage is one of the major barriers affecting access and uptake of health-services. There is an average 1.5 health workers per 1,000 people in Nigeria, which is below the minimum staffing threshold of 2.3 per 1,000 recommended by the World Health Organisation (WHO). There are even fewer health workers in hard-to reach and marginalised regions of the country.

Description: Community-based service providers are trusted community members chosen by the community who are trained to treat and provide advice about health problems to individuals and the members of the community, working closely with health-service providers. An equity-focused, life-saving strategy designed to build capacity of community volunteers to provide first-line interventions in resource constrained, marginalised setting was designed to bridge this gap. The aim was to address shortfall in human resources for health in primary health care centres, improve access to health care, reduce child mortality in rural, hard to reach communities and improve health indices. Community volunteers selected from 138 communities in Benue state, Nigeria were validated using modified national selection criteria for Community Resource persons; (community resident, ability to read, write and comprehend) using a ratio of 1 volunteer to 40 households.

Lessons learnt: There was a ready pool of human resources within communities who can be trained and equipped to identify and manage common childhood illness using national guidelines to bridge healthcare workforce shortage in communities.

Next steps: Work with stake holders to develop curriculum for capacity building for volunteers, terms of reference and develop a central repository with full details to ensure that these community volunteers who have demonstrated skilled capacity to deliver live-saving intervention are a ready resource to complement the health workforce in their communities.



WEABO28: Health navigation program: a community health intervention to expand access to emergency care and promote safe deliveries on Mfangano Island, Kenya; **Nick DesLauriers¹, Evance Ogola¹ | ¹Ekialo Kiona Centre, Kenya**

Issues: Mfangano Island is a remote fishing community on Lake Victoria, Kenya, with a population of approximately 19,000. It is an hour by boat to the mainland. As such, its residents face many challenges in access to healthcare, including delays in reaching definitive care during emergencies and limited access to advanced obstetrical care.

Description: The Health Navigation Program (HNP), coordinated by the Ekialo Kiona community health organization, is a network of Community Health Volunteers (CHVs) trained as first responders to emergencies in their village. The HNP facilitates expedient coordination of care by timely referral to health facilities on the island, and by expediting transfers to the mainland via an emergency boat available 24-hours a day with coxswain and nurse. The CHVs also identify newly pregnant women in their communities and ask them to complete a “birth plan”. This includes discussion on planning for a safe pregnancy and delivery to prevent obstetrical complications, which can become dangerous emergencies on the island given the limited obstetrical services available.

Lessons Learned: With the involvement of CHVs in the HNP there is increased emergency coordination and promotion of safe deliveries. Since 2016, 196 emergency cases have been successfully coordinated with an average CHV response time of 14.56 minutes. 153 birth plans were completed in this period, and of the 75 participants for which follow-up data was obtained, 74 delivered in health facilities. The HNP is a novel intervention that builds on existing community health networks and has expanded access to critical health services in this remote island setting.

Recommendations: Conduct a research study to evaluate the impact of the HNP on delays in care and overall outcomes during emergencies. Expand the geographical coverage of the program by training more CHVs and stationing another emergency boat at a second location.



WEABO29: Rapprocher l'information et les services de santé sexuelle et reproductive des populations vivant en zones rurales; **Jyer Stiven Magnondo Dielet | Association Congolaise pour le Bien Etre Familial – ACBEF, Congo**

Background: Au Congo, les adolescents et jeunes représentent environ 33,3% de la population totale et plus de 32% parmi eux résident dans les zones rurales. Cependant, les services de santé, particulièrement les services de santé sexuelle et reproductive, sont difficilement accessibles et la qualité n'est pas assurée dans ces zones. Aussi, ces jeunes n'ont pas accès à l'information de qualité sur la santé sexuelle et reproductive. L'Association Congolaise pour le Bien Etre Familial (ACBEF), oeuvrant dans la santé sexuelle et reproductive, a mis en oeuvre un projet dans les régions du Kouilou, du Niari et de la Bouenza.

Methods: Le projet était axé sur deux aspects: la sensibilisation et l'offre de services. Plusieurs stratégies ont été utilisées: les causeries éducatives, l'offre de services médicaux avancés, l'offre de services non médicaux et le référencement.

Results: Les résultats du projet ont été obtenus selon les aspects du projet. En matière de sensibilisation, 36 jeunes ont été formés en tant que pair éducateurs et agents de services à base communautaire. Ces jeunes ont pu réaliser 209 causeries éducatives qui ont permis de toucher 37.140 jeunes dont 159 autochtones et 116 malentendants. Ces agents de services à base communautaire ont distribué plus de 262.656 condoms dont 306 femidoms, 121 pilules d'urgence et 299 spermicides.

En matière d'offre de services, 27 prestataires ont été formés sur l'offre de services de qualité et les technologies contraceptives. Ces prestataires ont reçu plus de 5.958 personnes sollicitant différents services. De manière spécifique, 1.646 ont bénéficié des services de dépistage, 3.299 des services de planification familiale, 573 des services de fécondité et 440 des autres services.

Conclusions and recommendations: Ce projet a permis de rapprocher les services de santé sexuelle et reproductive de ces jeunes résidant dans les zones rurales et contribuer de manière significative à l'amélioration de la qualité de leur santé.



WEABO30: The need for universal housing coverage in health: Evidence from a housing cooperative for rural health workers in Zambia; **Spencer Huchulak | SolidarMed, Zambia**

Issues: Zambia faces a critical health care worker (HCW) shortage in rural areas; there are 11.2 HCWs per 10,000 people in rural areas compared to 18.7 HCWs in urban. Fundamentally, rural communities need more HCWs. That said, recent studies reveal that most HCWs would take a rural job over a basic urban job if superior housing were available. In their National Human Resources for Health Strategic Plan (2018-2024), the Ministry of Health (MoH) in Zambia acknowledges that the lack of staff housing impedes recruitment and retention of rural HCWs. Without new, quality housing for HCWs in rural areas, achieving universal health coverage in Zambia will be impossible.

Description: In 2013, SolidarMed started a housing cooperative (SolidarInvest) specifically for rural HCWs. Funds were secured from the private sector to build new houses, upgrade existing properties, and offer vocational training to local youth. Land rights were secured from the MoH.

Lessons Learnt: New houses simultaneously aid the retention of existing staff, whilst freeing up existing houses, allowing facilities to grow. For example, new houses built at Chinyunyu Health Centre, Rufunsa District, attracted two new staff—a 20 percent increase in human resources. SolidarInvest managed 36 houses; all were rented out. Revenue was generated by collecting government-funded housing allowances, which were separate from staff salaries and created a financial structure that funded future maintenance.

Next Steps: SolidarInvest was working to scale up, become locally administered and self-financed. Going forward, SolidarInvest aimed to develop a building model that reduces costs, safeguards the environment and maximizes community benefits. Building at remote health posts was to be tested. The cooperative planned to share its model with other districts and provinces in the future.

Keywords: housing; human resources; rural



WEABO31: Door-to-door immunization strategy for reaching every child in hard-to-reach areas; a case of Migori County; **Shikuku Duncan¹, Muganda Maxwell², Wanza Georgina², Matete Thomas¹, Kisia Paul¹ | ¹Save the Children, Kenya, ²JHPIEGO, Kenya**

Background: Access to quality essential healthcare services and vaccines for all is key to achieving universal health coverage. Inequities driven by differences in place of residence and socio-economic status persist among different communities hindering the achievement of sustained immunization indicators. Innovative community-based reaching every child (REC) interventions at the sub-district/county level can reduce these local inequities. This study was to determine the effect of an enhanced door-to-door immunization strategy on the immunization coverage in hard-to-reach areas.

Methods: This was a cross-sectional review of DHIS2 immunization data for July and August 2018 for Migori County. In July, routine fixed-point immunization services were provided whereas in August, fixed-point plus a 3-day immunization door-to-door defaulter tracing by community health volunteers and immunization by nurses was conducted in 64 health facilities with over 100 unimmunized children between January 2017 and June 2018 in all sub-counties. Differences in means for the immunization coverage rates/proportions for the two periods were computed using paired t-tests/z-tests.

Results: There were statistically significant increases in the means for immunization coverage from July to August for OPV birth dose (75.7 vs 84.8, P=0.0008), BCG (74.4 vs 89.9, P=0.0001) and Penta 3 (92.3 vs 112.1, P=0.0001) (difference was not significant for Penta 1 (96.2 vs 102, P=0.0649), the proportion of under 1 children vaccinated against MR1 (81.7 vs 111.5, P<0.0001) and the under 1 fully vaccinated (FIC) (78.6 vs 103.9, P<0.0001). There was a net significant increase in the overall immunization coverage at the sub-counties level for all the select immunization indicators (P<0.05) except for Penta 1: OPV birth dose (84.8 vs 94.3), BCG (86.9 vs 97.7), Penta 3 (93.7 vs 106.5); proportion of under 1 vaccinated against MR1 (89.71 vs 109.1) and FIC (86 vs 103.9).

Conclusion: Hard-to-reach populations require multiple REC strategies to reach every child with immunization.



WEABO32: Reaching the community of vulnerable population: promoting regular screening to fight against Non-Communicable Diseases in Kirehe District, Rwanda; **Eric Twizeyimana | University of Rwanda, Rwanda**

Background: Kirehe district serves a catchment population nearing 400,000 people. According to National Statistics 2013, Rwandan population is ageing and the demand of Non-Communicable Diseases (NCDs) services from people in 40s, 50s and beyond is likely to increase. The WHO Rwandan burden of NCDs and injuries account 42% of the total death on the age group 10-40 surging to 63% in the over 40s. The objective of this study was to improve access and quality of care for NCDs and to identify the risk factors to improving the general knowledge about their prevention.

Methods: All data were collected from 4 sites and 1 car-free day sports activities through NCDs checkup mainly diabetes and cardiovascular diseases by measuring blood pressure (BP), blood glucose, height, weight, waist circumference (WC), calculating the Body Mass Index (BMI), evaluating for association of tobacco and alcohol. Microsoft Excel was used to collect data and for their analysis.

Results: 4,282 people were screened in 5 days and more than 60% were females aged between 30-65. Less than 20% were obese (with a BMI>30), around 48% were having a high blood pressure. More than 70% were drunkards for more than 15 years and around 9% were smokers for more than 5 years. Less than 5% were having a high blood glucose. More than 85% were physically inactive.

Conclusion and recommendation: This NCDs screening increased the population awareness and commitment to action for 6 NCDs targets namely: harmful use of alcohol, physical inactivity, salt intake reduction, tobacco use, raised BP and obesity. All participants got education on healthy nutrition as well as family planning and eye care screening. We recommend this initiative to be implemented in all districts of Rwanda, in Africa even wherever in the world to fight against NCDs providing preventive health education for a variety of NCDs conditions, family planning and malnutrition.



WEABO33: Health services integration: Use of art as the driver to attaining the 90:90:90 global targets through integrating mental health into HIV Programs, in Nairobi County; **Brian Otieno | Alfajiri, Kenya**

Introduction: ALFAJIRI was a safe space platform of Adolescent and Young People aimed at empowering young people and advocating for meaningful involvement of young people in Health access advocacy and policy issues affecting the young people in Kenya. For over 3 years, we've been partnering with various youth-led groups to facilitate community activities and programming that ensure youths are taking up the role of health services advocacy issues within their various spaces. The Kenya Mental Health Policy 2015-2030, (2016) states that, Adolescents face behavioral challenges and exposure to risky behavior, such as use of psychoactive substances; making them vulnerable to mental disorders. In a study of 162 HIV infected children and adolescents in Kenya, 49% were reported to have at least one psychiatric diagnosis or suicidal, with anxiety disorders most common (32.3%), and followed by major depressive disorder at (17.8%). This indicates the need to address mental health within care systems addressing HIV or primary care.

Description: Alfajiri utilized the Safe space program through engagement of 93 AYPs with 37 being HIV positive within 1 tertiary institution and 2 communities. Engagement involved using art specifically spoken words and Theater forums approach to address mental health and Sexual Reproductive Health and Rights issue among YPLH to improve drug adherence within Nairobi County.

Lessons Learnt: Viral suppression among the youths improved as reported by the identified health facilities by 20% (n=37) from initial 3.7% (n=10), 27 got tested and 5 positives identified and enrolled to care immediately. Among the engaged AYPS, 13 reported to have experienced anxiety or depression with suicidal ideologies in one point in life with 38.5% (n=5) being YPLH.

Recommendations: Although viral suppression depends on ART adherence, Mental Health has a profound impact on drug adherence.



WEABO34: REACHING GRASSROOTS – Is sub granting worth it?“ A case study of Health Systems Advocacy Project in Amref Health Africa – Uganda; **Harriet Mugisha¹, Deusededit Mbuga¹, Bob Okodi¹, Tom Kulumba¹ | ¹Amref Health Africa, Uganda**

Issue: In Uganda, there was limited access to quality healthcare services for mothers and children in the rural settings. This was due to a high rate of staff absenteeism, late reporting to duty, demotivated health personnel, deficient health units as well as poverty. These bottlenecks required strong monitoring and support supervision systems. Although Civil Society Organizations (CSOs)/Community based organizations (CBOs) are known to enhance the quality of service delivery through innovation, grassroots capacity building and advocacy, limited efforts have been made to enhance their ability to scale-up their efforts to maximize impact. The option of sub-granting by mainstream CSOs has not been explored.

Description: Amref Health Africa intervened through a Health Systems Advocacy (HSA) Project in collaboration with indigenous CSOs/CBOs in selected hard to reach rural districts of Uganda (Lira, Kabale, Soroti, Kisoro, Serere and Dokolo). The aim was to strengthen local health systems through which CSOs, local government, health staff and politicians work together to conduct oversight functions in service delivery units to influence decisions and actions that improve access to quality health services. Amref disbursed grants for implementing CSOs/CBOs as stipulated in sub grant agreements to enable them conduct key activities including health facility joint monitoring, citizen hearing, district dialogue meetings to discuss health service gaps.

Lessons Learnt: CBOs are a strong pillar in facilitating villages in community development through village centered modes of development.

Recommendations: Government should facilitate the CBOs as strong partners with resources as a way to create sustainable development.



WEABO35: The Science behind Testing: A Systematic Review of Zika Virus Diagnosis by Serology; **José Manuel Besares López | University of Nottingham, United Kingdom**

Background: Diagnosis of ZIKV is a serious Public Health problem. Due to the similar symptoms presented on the infections caused by related viruses, clinical diagnosis is not reliable. While in other infectious diseases the Laboratory Tests could solve the uncertainties, in ZIKV settings the lack of highly-standardized protocols, the limited specificity and sensibility, the high costs, and other factors, make ZIKV diagnosis, a complicated task. The objective was to evaluate and explore the Diagnosis of Zika Virus by Serology. Identify the existing protocols, their effectiveness, the overall accessibility, and socio-economical aspects.

Methods: A systematic review was done using the PRISMA statement. From 1195 hits retrieved by the search strategy in five databases, studies who met the inclusion criteria were critically appraised using the CASP tool, and then analysed following an specific questionnaire about the Serology techniques used, their frequencies among the data, the incidence of countries who published the articles, and the socio-economical aspect of the countries based on the Income classification of the World Bank. The results were presented in a descriptive approach.

Results: Across 37 studies from 15 different countries, and published between 2011 and 2017, the effectiveness of serology techniques for ZIKV diagnosis was compared. 6 different types of serology strategies and their frequency of use were registered.

Conclusion: Serology is recommended for cases with 7 days after the onset of symptoms; and for Neurological and congenital syndromes, and if needed, in fatal cases. ELISA IgM, or MAC-ELISA, is the main serologic technique used for the ZIKV diagnosis. More research needs to be conducted about ZIKV diagnosis in Low and Middle-Income countries.



WEABO36: Innovative GxAlert Real Time Reporting system improves drug resistant TB in Nigeria; **Kehinde Agbaiyero I Systemone, Nigeria**

Background: Nigeria, ranked the 8th highest TB-burden and 11th drug resistant tuberculosis (DR-TB) burden country in the world. Problem stems from the location of GeneXpert MTB/RIF machines to diagnosis DR-TB at multiple clinical sites spread across a country of over 180 million, continued reliance on paper records and slow data transit systems, resulting in lack of timely quality data to guide resource allocation.

Description: SystemOne developed an innovative mobile-based solution that sends GeneXpert diagnostic results to key health system actors instantly to enable quick enrollment of newly diagnosed patients in a DR-TB treatment program. GxAlert is configured on GeneXpert systems and a router with dual-Sims from a local telecom that sends encrypted data sent to the secure web-based GxAlert database in real time with the capability to send diagnostic test results out to national programs decision makers, supervisors, clinicians and patients via SMS text, email, and web dashboard or by connecting into existing monitoring and evaluation, patient record, or case management tools already in use and shortening the new-case reporting period from months to seconds.

Lesson learned: The proportion of DR-TB patients enrolled for treatment based on GxAlert messages received from 200 GeneXpert facilities jumped to 85% in March, 2016 from only 50% enrolled in April 2014. SMS or text message alerts speed treatment initiation. Weekly reports of all new TB+ cases are both emailed and sent by SMS to local health officials to ensure better connection between diagnosis, enrollment and treatment. GxAlert speeds up response in over 390 laboratories through the National TB Program, reporting thousands of test results for faster enrollment of patients in treatment programs. Installation is done once and locally. Technology is kept simple as local telecom Sim are readily available and affordable for GxAlert connectivity.

Conclusion: The use of GxAlert SMS notification of GeneXpert testing suggests a scalable model for sustainability.



WEABO37: Molecular characterization of multidrug-resistant Salmonella by PCR based replicon typing in Ghana; **Godfred Acheampong¹, Michael Owusu¹, Alex Owusu-Ofori², Isaac Osei¹, John Amuasi¹, Florian Marks³, Ellis Owusu-Dabo⁴**
¹Kumasi Centre for Collaborative Research in Tropical Medicine, ²Komfo Anokye Teaching Hospital, ³International Vaccine Institute, ⁴Kwame Nkrumah University of Science and Technology, Ghana

Background: Salmonella infections are known to cause significant morbidity and mortality, especially in resource-limited countries. The situation is worsened by widespread presence of multidrug resistant (MDR) strains, largely encoded on conjugative plasmids. However, little is known about how these strains are characterized at the molecular level in developing countries. We present findings from ongoing study to characterize multidrug-resistant Salmonella plasmids into incompatibility (Inc) groups using a multiplex PCR based replicon typing (PBRT) approach.

Methods: This was a cross-sectional study involving individuals suspected of having Salmonella infection. Blood, stool and oropharyngeal swab (OPS) specimens were taken from these patients between May, 2016 to January, 2018 at Komfo Anokye teaching hospital and Agogo Presbyterian hospital, both located in the middle belt of Ghana. Isolation and identification of Salmonella were done using standard microbiological procedures. Genomic DNA were extracted from MDR S. Typhi and non-typhoidal Salmonella (NTS) isolates and PBRT performed using 30 replicons representative of the major incompatibility groups among Enterobacteriaceae.

Results: Of the total number of 2,376 samples collected, 101 Salmonella sp. were isolated (4.3%) representing 72 (71.3%) and 29 (28.7%) S. Typhi and NTS respectively. Multidrug-resistant Salmonella were detected in 34 (33.7%) strains: with S. Typhi MDR (23/34; 67.6%) being twice as many as non-typhoidal Salmonella MDR (11/34; 32.4%). PCR based replicon typing produced 4 different Inc groups identified to be encoding for MDR. Eleven and 13 S. Typhi MDR (32.4% and 38.2%) harboured IncHI1 (534bp) and IncU (843bp) respectively. NTS harboured 1 rare IncX2 plasmid and 8 novel IncFIIS plasmids that encode resistance to carbapenems, colistins and several virulence genes.

Conclusion: This study shows the presence of plasmid variants in our study population that confer MDR in Salmonella from clinical isolates. This is the first time 3 of 4 variants have been reported in Ghana and are similar to those circulating in Africa but one.



WEABO38: Constructing a response surface for sulfadoxine-pyrimethamine in 'fully sensitive' and 'super resistant' *Plasmodium falciparum* to evaluate the extent of synergy; **Gasim Abd-Elfarag¹, Jill Davis¹, Giancarlo Biagini¹, Eva Maria Hodel¹ | ¹Liverpool School of Tropical Medicine, United Kingdom**

Background: Sulfadoxine-pyrimethamine (SP) is used for malaria chemoprevention in pregnancy, infancy and children below 5 years of age. Sulfadoxine and pyrimethamine are known to act in synergy but there is no mathematical equation that describes the synergy in physiological conditions. Such an equation is required for models used for dose optimisation aiming at prolonging the therapeutic lifespan of SP.

Methods: *Plasmodium falciparum* 3D7, Dd2 and HB3 strains were tested in vitro for sensitivity to sulfadoxine and pyrimethamine individually and SP combination. The parasites were cultured in standard and blood-like folate concentrations culture media using modified standard methods. Results of the SP combination assays for the 3D7 strain were plotted on a response surface and the extent of synergy evaluated.

Results: The *Plasmodium falciparum* 3D7, Dd2 and HB3 strains all grew well in both the standard and blood-like folate culture media, but slightly better growth was observed in the blood-like folate medium. The IC₅₀ of pyrimethamine for the 3D7, and Dd2 and HB3 were in the nanomolar and micromolar ranges respectively, however their IC₅₀ for sulfadoxine was not obtainable. The combined activity of SP showed some synergy for the 3D7 and HB3 strains but no synergy for the Dd2 strain. The response surface for the 3D7 strain showed that SP acts in synergy. SP synergy depends on *P. falciparum* resistance to pyrimethamine and to a greater extent to sulfadoxine. Previous studies reported failure of SP in intermittent preventive treatment in pregnancy and infancy. Higher sulfadoxine concentration in SP combination might be required to overcome this. The study also showed that, higher concentration of folate makes it difficult to assess the susceptibility of the malaria parasites to SP.

Conclusions: This study collected crucial data required to parameterise pharmacokinetic pharmacodynamic models that aim at optimising dosing regimens of SP and extending its therapeutic lifespan.



WEABO39: The blended approach to training Frontline Health Workers: Towards Beating Non Communicable Diseases; **Sarah Kosgei¹, Christopher Were², George Kimathi¹, Colleta Kiilu¹, Bryson Sifuma¹, Sarah Jefferys¹, Anastasia Kimeu¹ | ¹Amref Health Africa, ²GSK, Kenya**

Background: Non communicable diseases (NCDs) are a growing global health challenge accounting for a large percentage of mortality and over 50% hospitalization in Kenya. Knowledge and skills of the health workers in screening, diagnosis and management of NCDs is critical for effective management. To address the skills gap among health workers, Amref Health Africa in partnership with GSK, implemented a project to improve capacity of health workers to ensure quality management of diabetes and asthma. The study sought to assess the effectiveness of a project that sought to leverage on technology to enhance quality of care for NCDs.

Methods: Cross sectional study to assess the effectiveness of the innovative training models using Kirkpatrick's model. Training was done using three approaches of face to face, eLearning and mLearning. A total of 382 health workers and 33 key informants were interviewed. The study population included health care providers at the primary health care facility level and the community level.

Results: The training was well received, with a 95% appreciation rate among the trainees across the three models. All models were successful in equipping learners with the intended knowledge and skills for diagnosis and management of diabetes and asthma, with notable changes in behaviour following the training, and development of key organizational performance indicators to address NCDs.

Conclusions: The different models of training used were very effective. The training was successful in increasing their knowledge, skills, and commitment of health workers to spearhead the prevention and management of NCDs. At individual level, health workers are prepared and well equipped to provide services to their clients. No training model was superior in terms of the degree of satisfaction, improving knowledge, skills or shaping behavior change and performance. The only difference was cost and time.

Keywords: NCDs, human resources, training, blended, e-learning, m-learning, Kenya



WEABO40: Adapting to technology to support mobile and cross-border populations access health services;
Dorothy Muroki¹, Boniface Kitungulu¹, Leanne Kamau¹ | IFHI 360, Kenya

Issues: Recent studies in the East African Community (EAC) region have documented existence of transnational access of health services. However, this information is not captured at the point-of-care because data collection and management tools are designed for national populations; they are not harmonized across countries; and have no provision to collect such information. Consequently, there is a dearth of data that shows individuals who access health care services across borders, which impedes decision making and resource allocation. This leads to overstretched resources and frequent stock-outs of commodities and supplies at border facilities, impacting effective service delivery for these populations.

Description: The USAID-funded Cross-Border Health Integrated Partnership Project (CBHIPP) initiated a paper-based manual cross-border health direct service delivery and referral system with community and facility tools to strengthen cross-border defaulter tracing and treatment adherence to support increased access to integrated health services. Among them is a tool used to profile/identify mobile cross-border populations and the services they received at border health facilities.

Lessons Learned: A digital health management information system that is entrenched within health systems in EAC partner states is critical to document and track transnational health access across borders. This called for multi-sectoral engagement and buy-in for sustainability. Despite the critical role this information can play to inform planning, resource allocation and policies, if it is viewed as a “project-driven initiative”, its effectiveness is limited

Recommendations: There was need for a regional digital health service delivery framework for the EAC region, aligned with respective national health systems. This system should be designed, developed and implemented in consultation and collaboration with multi-sector stakeholders in EAC and partner states’ national and local levels to secure buy-in and ensure sustainability. This will lead to improved health systems, access to and continuity of health care and use of data for decision making.



WEABO41: Human Resources for Health (HRH) and government investment priorities – linking together; **Christina Godfrey¹, Ellen Senkoro¹ | ¹The Benjamin William Mkapa Foundation, Tanzania**

Background: Tanzania is facing critical HRH shortage by 54%. On the other hand, temporary freezing of new employment permits for the period of 2015/16–2016/17 increased markedly shortage across all cadres at the health facilities (HFs). However, there was low pace for deployment of Health Workers (HWs) compared to the existing health Sector’s demand for HRH, approximately 11,409 were deployed between 2017/18 and 2018/19. The Government in its positive effort to improve quality of health care continues to upgrade health facilities which created more demand of health workforce. This was evidenced by its recent ongoing investment of expanding 237 health facilities to provide CEmONC services. As from this period 67 new District Hospitals were to be also established.

Methods: The Government and Partners including The Benjamin William Mkapa Foundation were on the late-stage to develop innovative recruitment options to complement its initiatives and priorities. The proposed options included; Deployment health professionals into the existing public health facilities with critical shortage of skilled health professionals by remunerating them through existing schemes such as National Health Insurance Fund (NHIF), Improved Community Health Fund (ICHF) and other sources. Second, facilitate unemployed medical officers to open and operationalize private clinics in underserved areas by creating enabling environment (policies) through special PPP agreement. For the second option, health professionals were to be availed to kick-start financing through micro finances, loans and/or grants facilities by different financing schemes, such as APHFTA.

Results: These two options were to accelerate realization of the health targets by contributing to health workers’ availability in accelerating equitable and quality health services for all.

Conclusions and recommendations: The Health sectors’ competing priorities on financing such as availability of health facilities was undeniably and necessary. On the other hand, health workers’ employment shouldn’t be left behind for complimentary.



WEABO42: Investing in community health results in a 9.4 times return on investment in Kenya; **Nayantara Watsal, Howard Akimala¹ | ¹Living Goods, Kenya**

Background: Kenya has a low quantum spending on health (6.1% of annual national budget verses a target of 15% as per Abuja Declaration, 2001), which poses a barrier to achieving Universal Health Coverage (UHC). Community health is one of the best buys in health care, but has not been prioritized in government budgets, primarily due to the lack of localized value-for-money evidence.

Methods: In 2017, Kenya's Ministry of Health and Living Goods partnered to build the case for investing in community health. The UNICEF Costing Tool and the Lives Saved Tool were used to estimate costs and benefits, respectively, of scaling up community health over a ten year period. The study also used key informant interviews, focus group discussions and stakeholder engagement meetings to assess qualitative benefits.

Results: Investing in community health interventions can achieve a return on investment (ROI) of 9.4x over a ten-year period by: Averting advanced-stage HIV/AIDS, malaria, and tuberculosis (TB), saving an estimated US\$107.8 million over five years. Increasing productivity by \$24.5 billion. The total economic value of a fully-scaled community health program in preventing health crises is as high as \$330 million. The overall multiplier increase in employment as a result of investment in community health is as high as \$2.5 billion over ten years. Indirect and broad benefits: Generating several indirect benefits, including improved data collection as well as community empowerment.

Conclusion and Recommendations: Community health is a compelling, cost-effective investment in health care delivery in Kenya and achieving UHC. While investing in a functional community health system will require significant initial expenditure, Kenya will reap substantial direct and indirect health and social benefits, and ultimately realize remarkable overall economic value.



WEABO43: Cross-country comparison of the costs of healthcare services, and the cost drivers, at cross-border locations in Kenya, Rwanda, Uganda and Tanzania; **Agnes Gatome Munyua | Abt Associates, Ethiopia**

Background: The East African Community's (EAC) roadmap for portability of Social Health Protection (SHP) envisions social health insurance being used across borders in all East African countries. This will reduce financial barriers to healthcare, facilitate mobility of East Africans and support the region's integration agenda. Data is needed to inform these decisions on portability of SHP systems. The objective is to have multi-country, comparable healthcare cost data to inform the development of portable SHP systems for the EAC region.

Methods: The USAID-funded Cross-Border Health Integrated Partnerships Project collected data from July 2014-June 2015 at 45 public and private health facilities within five kilometers of five cross-border locations in Kenya, Rwanda, Uganda and Tanzania. The excel-based Management Accounting System for Hospitals (MASH) was used to analyze data from a provider perspective and generate average costs per outpatient visit and per inpatient bed day using a top-down approach.

Results: Results were generated by country, ownership and level (clinic, health centre, hospital). Unit costs varied widely between countries. For example, outpatient visit unit costs were US\$1.54-14.19 (Kenya), US\$3.09-4.11 (Rwanda), US\$ 0.69-11.05 (Uganda), and US\$3.38-13.56 (Tanzania). Costs were higher at private facilities compared to public facilities, and at hospitals compared to smaller clinics and health centres. Labor was the major cost driver in Kenya and Tanzania while drugs and supplies contributed the most to unit costs in Rwanda and Uganda. Workload was 3-5 times higher at public facilities compared to private facilities.

Conclusion and recommendations: Currently, EAC countries have high out-of-pocket spending, low public spending on health and varying health insurance coverage. Implementing SHP systems, including portability, will require domestic resource mobilization and well-structured systems to support the purchasing function. The study results can support planning and purchasing by giving insight into healthcare costs, and the cost drivers across countries and different levels of facilities.



WEABO44: Major top 10 health outcomes in Zambia and their implications on health financing between the years 1990 and 2015; **Muganhiri Darren¹, Senkubuge¹, Achoki², Cronje¹** | ¹University of Pretoria, South Africa, ²University of Washington, USA

Background: Zambia over the last 25 years has undergone a series of transformation in its demographic and epidemiological disease pattern. Population disparities continue, as there are now more apparent societal unrests, disease burden shifts, population changes, and emerging infectious diseases. Health financing has become a key strategy in addressing these inequities. The main purpose of this study was to investigate the 10 major health outcomes in Zambia between the years 1990 and 2015. Further, the study also looked at how health transitions have affected health financing within this period.

Methods: Secondary data from 1990–2015 Global Burden of Disease (cross-sectional study design) obtained from the Institute for Health Metrics and Evaluation (IHME) was analysed. GBD standard of measurements with emphasis on metrics such as Disability-adjusted life years (DALYs), Years of Life Lost (YLLs), Years Lived with Disability (YLDs), Health-Adjusted Life Expectancy (HALE) and Age-Standardised Death rate (ASD) were used.

Results: By the end of 2015, the study revealed that life expectancy at birth was 58.55 years in 2015. Zambia is now currently facing a triple burden of disease problem. With a growing demand for care, shifting from communicable to non-communicable and injuries including chronic diseases associated with an aging population. Cardiovascular diseases with a DALY of 4765.06 per 100 000 are the leading cause of mortality. In 2015, 2% of health spending was directed to Non-communicable diseases while 74% for communicable diseases.

Conclusion: The study indicated that Zambia is currently facing a triple burden of disease. The 25-year health trends showed a decrease in most communicable diseases whilst there is a rising prevalence of NCDs and injuries, which will warrant more attention and funding in the future.



WEABO45: Increasing district budgets for FP: The experience of Health Systems Advocacy Project in Kabale District; **Liberty Christopher | Kabale Women in Development (KWID), Uganda**

Introduction: Prioritizing Family Planning (FP) services and commodity purchase in budgets benefits the most vulnerable especially women. There is a wide gap between rural areas and urban areas. According to UDHS, 63% of women in rural-areas and 53% in urban-areas aren't using any method of FP. Local governments also face numerous competing demands on the limited financial resources.

Description: To assist local authorities in allocating resources to FP, in 2017 Kabale Women in Development (KWID) with support from Amref-Health Africa began working with Technical Planning Committee to advocate for increased resource allocation to FP, mainstream FP in district budgets to ensure greater sustainability of FP services. KWID has worked with stakeholders to advocate for increased resource allocation for FP. Activities included advocacy meetings, citizen hearings and radio talk shows. KWID tracked resource allocation for FP to gauge the impact of the interventions. This included reviewing budget estimates from the district to identify: key FP activities; what proportions of the budgeted funds were spent In FY 2018, Kabale district local-government budgeted for FP of up to 5,000,000 shillings (US \$1,352). In the same year, the district mainstreamed FP in all sectors not limited to: health, finance, works, production and education.

Lessons learnt: It was evident that the district had realized the importance of allocating money for FP to curb the population explosion in the area, a message that has always been emphasized during district review meetings. KWID's support to the district has strengthened their capacity budget for their current and future investments in FP services. FP activities have increased especially outreaches to community members. KWID intends to advocate for procurement of FP commodities since most of the FP commodities are provided by donors.

Next steps: In Uganda, NNMS does not supply FP commodities consistently. District budgets should fill the gaps when there are stock-outs.



WEABO46: Social Accountability Mechanisms in Health Financing: A Qualitative study of Universal Health Coverage in Rwanda; **Sarah Njenga** London School of Economics and Political Science, United Kingdom

Introduction

Achieving Universal Health Coverage (UHC) in developing countries can be an arduous and complex task. Issues regarding inadequate financial and human resources for healthcare facilities, as well as a lack of accountability within the governance of health systems, are continuing to threaten the ability of developing countries to achieve UHC for all their citizens. Against this background, I assess the role that accountability mechanisms bear in increasing the propensity of developing nations to design and implement equitable and efficient health financing systems.

Methods

There was consideration for the hybridity that co-ordination between state and society can have in ensuring accountability with health service provision from both bottom up and top-down levels. I also present a compelling case for using traditional forms of accountability ideologies, whose success I argue derives from its ability to be uniquely suited to the socio-political context in which the service is being provided. I refer to the case study of Rwanda's successful Community Based Healthcare Insurance scheme to illustrate my case.

Results

Findings suggest that the two Rwandan traditional accountability systems (Imihigo and Ubudehe) stimulate incentives which improve financial access to healthcare services for citizens.

Conclusion: The nature of Rwanda's tradeoff between authoritarianism and citizen agency, as well as service provision to maintain political legitimacy, will be considered as potential drawbacks seemingly inclusive accountability systems.



WEABO47: Towards UHC: raising unheard voices through the Universal Periodic Review process; **Giulia Perrone¹, Judith Bueno de Mesquita¹, Rebekah Thomas², Robert Hoddy¹, Alexandra Havkwist¹, Camille Gauter¹, Ajeng Larasati¹, Ingrid Legrand Gjerdset¹, Tasneem Sadiq¹, Raymond A Smith¹ |¹University of Essex, England, ²World Health Organization, Switzerland**

Background: The Universal Periodic Review (UPR) is a peer-review mechanism established by the UN Human Rights Council that gives the civil society a central role in the monitoring and accountability mechanism for the implementation of human rights. The two-year research project of the Human Rights Centre Clinic, University of Essex, for the Gender, Equity and Rights team at the WHO aimed to advise the WHO on how to better engage with the UPR.

Methods: The project reviewed and compared the recommendations issued in relation to eight selected countries, including Lebanon, Malawi and Mozambique, during the first two UPR cycles, to see, among others, whether the recommendations were aligned with the priorities of governments, UN agencies and civil society stakeholders.

Results: On certain issues, there were marked disparities between the priorities accorded by country reports, stakeholder reviews and UN submissions and these appeared to influence the pattern of recommendations. For example, during the two cycles, LGBTI-related health issues were raised 33 times in recommendations, yet only one Country Report mentioned this subject; by contrast, Stakeholder reports frequently raised LGBTI issues. Similarly, in both cycles mental health was the 6th most frequently raised health issue in Country reports but the 12th most discussed category in UN submissions: it was listed in only 12 recommendations. These findings suggest that some reports have more influence on the pattern of recommendations than others, particularly when the subject is ideologically or politically sensitive.

Conclusions and Recommendations: The official participation of civil society in the UPR mechanism allows all organizations to provide direct contribution in the review of their State at the international level. This can also lead to the creation of relevant partnerships where NGOs offer their expertise to States in order to ensure communities demand for the right to health.



WEABO48: When, where, and how does social accountability improve health? Evidence from a mixed-method multi-country impact evaluation; **Courtney Tolmie¹, Stephen Kosack², Jessica Creighton³, Archon Fung³, Dan Levy³, Jean Arkedis¹, Akshay Dixit³** | ¹Results for Development Institute, USA | ²University of Washington, USA | ³Harvard Kennedy School, USA

Introduction: Social accountability interventions are a popular way to encourage citizen involvement in improving public health across the globe, but the evidence on these approaches is decidedly mixed. For five years, the Transparency for Development (T4D) project has evaluated whether, where, and how such programs can encourage civic participation to improve maternal and newborn health care. This research project seeks to understand the impact of a program like this, both anticipated and unintended, on the people who participated in it and the communities in which they live.

Methods: The evaluation combined extensive co-design and iterative piloting with civil society organizations of an encouraged participation program targeted at maternal and newborn health care quality and utilization; a mixed method impact evaluation of two large-scale randomized controlled trials of that program in Indonesia and Tanzania; and three small process evaluations in Malawi, Ghana, and Sierra Leone. The research approach combines surveys, focus groups, observations, and ethnography, allowing for rigorous estimation of average impact on pre-specified outcomes; robust understanding of where and how impact varied and the mechanisms behind that variation; and serious consideration of unintended consequences—each verified with multiple data sources gathered from different perspectives.

Results: Altogether the approach offers a comprehensive and reliable evaluation of the implications of this complex community intervention, and the results (anticipated to be completed in late 2018 in time to share during AHAIC 2019) will reveal the impact of social accountability on health outcomes, the pathways through which community efforts can and cannot improve health quality and utilization, and the role of empowerment and participation in the success or failure of the intervention.



WEABO49: #HealthForAll without the people?! How to institutionalize population engagement in health-policy making;
Dheepa Rajan¹, Kira Koch¹, Laurent Musango¹ | ¹World Health Organization, Switzerland

Issue: Participation and citizen's voice are core SDG principles reflected in 'leave no one behind'. Better understanding mechanisms for population participation in decision-making is critical for achieving health for all. However, in most countries, the voice of the population remains unheard in the process.

Description: Global interest has been growing to better comprehend existing institutionalized mechanisms for population participation in decision-making. Setting up a National Health Assembly is such a mechanism and it has been working well in some countries that can help to support similar such process in other countries such as Nigeria, Mauritius, Tunisia and Uganda.

Lessons learnt: The World Health Organization has supported member states in the process and the conceptualization of participatory governance mechanisms. Results from country case studies revealed that context matters, in Tunisia for example induced by the Arabic spring. The path towards institutionalization, as annually undertaken in Thailand, is not straightforward and requires continuous improvements to enlarge representation of different population groups to the debate. A legislative framework as recently put in place in Iran enables a first important step. Nonetheless, high political commitment remains a key success driver. Overall, it has been the process of engagement and follow-up that fostered trust in a meaningful dialogue between various parties involved.

Next steps: The National Health Assembly concept is innovative practice in health systems development. It transforms the traditional role of the Ministry of Health from managers of service delivery to brokers of diverse health stakeholder interests – in essence, to conveners of policy dialogue through platforms such as a Health Assembly. Gathering real-time, meaningful population input into policies which affect them affords governments a tremendous opportunity to better engineer the health systems of their countries and to be more accountable to their people.



WEABO50: Use of “iMonitor+ ATM Kenya” Alert system to strengthen social accountability in Kwale, Vihiga and Homabay Counties, Kenya; **Titus Kiptai¹, Benson Ulo¹, Edward Omondi¹, Nick Were² | ¹Amref Health Africa, ²Tuberculosis Advocacy consortium (TAC)**

Background: Kenya through the support from Global Fund was piloting implementation of integrated TB, HIV and Malaria activities in Kwale, Vihiga and Homabay counties. To ensure close monitoring, recording and reporting of the TB, HIV and Malaria services, Amref health Africa through Tuberculosis Advocacy consortium (TAC) piloted “I monitor plus – Kenya ATM+”. I-monitor Alert System was an innovative solution tool leveraging on technology to enable monitoring, recording and reporting the state of services, as experienced by people themselves.

Description: Between Jan 2017 and December 2017, national and county health management team were sensitized on use of the alert system, 30 Civil Society Organizations (CSOs) and 60 Community Health Volunteers (CHVs) were trained and provided with android smart phones and installed system for reporting. The users were expected to monitor and report issues experienced within five service delivery areas (Commodities, Human Rights, Service Delivery, Social Support and Treatment Literacy) from both community and health facilities for action. Each service delivery area has specific sub themes which guided the users on what to report.

Lessons learnt: Out of the total 638 issues raised, 30.6%, 25.7% and 43.7% were from Homabay, Kwale and Vihiga respectively. The issues raised were as follows; Commodities (47%), Service Delivery (22%), Treatment Literacy (13%), Social Support (9%) and Human Rights (9%). All cases raised were analysed and presented to the county health management teams for action. Over the period provision and uptake of service improved among the community members.

Conclusion: Engaging the CHVs and CSOs in monitoring and reporting of programs both at community and health facility help ensure social accountability among the implementer and the stakeholders. Use of an alert system reduces a turnaround time of addressing health issues experienced by the communities.



WEABO51: Use of evidence to enhance transparency, accountability, and influence financial resource allocation in the health sector; **Seminie Cathy Nyirenda¹, Sophie Makoloma¹, David Matiya¹, Emmanuel Kanike¹, Joseph Nkanthama¹, Janet Panulo², Davies Mwachumu³ | ¹Christian Aid, Malawi, ²Foundation for Community Support Services, Malawi, ³Malawi Health Equity Network, Malawi**

Issue: Malawi is a low income country, yet highly corrupt. Financial resource allocation to various ministries is limited, dependent on donor aid support. Ministry of health is usually underfunded, gets below recommended 15% as per Abuja Declaration, which affects allocation to various programmes. Accountability and transparency is a challenge as those entrusted with public funds do not account on how they have utilised the resources. Mostly, ordinary citizens do not participate in planning to ensure that the actual health needs are addressed. This prompted Christian Aid to implement a health governance project focusing on generation of evidence to influence change within the health sector.

Description: Capacity building of Civil Society Organisations (CSOs) and Community Action Groups in budget tracking and analysis, accountability and transparency was done. National and district budget analysis, monitoring and tracking; situational analysis on national cold rooms (immunization storage) and identify gaps was conducted. Interface and dialogue meetings were conducted with parliamentary committee on health, Minister of Finance and other key stakeholders but also district council authorities to lobby for increased health sector budget and improved service delivery. Civil Society Organisations tracked district council gate collections.

Lessons learnt: Health budget increased by 1.9% from 8% in 2016/17 to 9.9% in 2017/18); while district budget increased by 3%. The national and district drug budget increased by 9.8%. CSOs exposed inefficiencies within Balaka district council - within a month they collected over MK1 Million compared to about MK100, 000 which council employees presented to their authorities. Increased participation of community members in development of district implementation plan. There was improved power supply to national cold rooms which improved immunization storage.

Next Steps: More effort is required to support citizens to hold duty bearers accountable, but also continued efforts to generate evidence and lobby for more resource allocation



WEABO52: Timing of access to emergency general surgery in a major referral hospital in Rwanda: A retrospective study;
Eugene Tuyishime¹, Jean Paul Mvukiyehe¹, Paulin Banguti¹, Giles Cattermole¹ | ¹University of Rwanda, Rwanda

Background: Access to timely and safe emergency general surgery remains a challenge in sub-Saharan Africa due to issues such as insufficient human capacity and infrastructure. This study described the timing of emergency surgery and the perioperative mortality rate.

Methods: This was a retrospective review of emergency general surgery cases performed at the Centre Hospitalier Universitaire de Kigali (CHUK) in Rwanda between June 1st and November 31st, 2016. Our primary outcomes were Home to Emergency Department (ED) time and the time to surgery. The secondary outcome was the perioperative mortality rate (POMR).

Results: During the study period, 148 emergency surgeries were performed. Most of the patients were male, 118 (80%), aged between 15-65 years old (68.9%), from out of Kigali 100 (72.46%), and had insurance 106 (80.3%). The most common diagnosis was abdominal trauma 36 (24.3%), followed by peritonitis 30 (20.3%), and intestinal obstruction 23 (15.5%). The mean Home to ED time was 3.15 (1-14) days and the mean time to surgery was 12.8 (0 to 110) hours. There were delayed home to ED time and delayed time to surgery for most of the patients respectively 67 (52.34%) versus 61(47.66%) and 111 (77.62%) versus 32 (23.38%). Only a few had reoperation 13(8.8%) and the perioperative mortality rate was 34 (23%). Some of the poor outcomes associated with in-hospital delay found in our study included reoperation and death. Factors to consider in order to minimize delay to surgery include age, diagnosis, and patients with high risk of death.

Conclusions: Access to safe and timely emergency surgery in tertiary hospitals in Rwanda is still a challenge. Improving surgical capacity at the district hospital, community education for early presentation, and referral system, might result in timely, safe and affordable emergency general surgical care in tertiary hospitals in Rwanda and improved patient outcomes.



WEABO53: Factors associated with surgical site infection among women underwent obstetrics surgery at Felegehiwot Referral hospital, Bahir Dar, Northwest Ethiopia. A facility –based cross-sectional study; **Azezu Asres¹, Shumiye Shiferew¹, Dagne Addisu² | ¹Bahirdar University, Ethiopia, ²Debre Tabor University, Ethiopia**

Background: Surgical site infections are one of the most common healthcare-associated infections in low and middle-income countries, which cause prolonged hospital stays and increase patient susceptibility to other nosocomial infections. Hence, this study aimed to determine the magnitude and associated factors of surgical site infections among women who underwent obstetric surgeries in Felegehiwot specialized hospital, Amhara, Bahir Dar, Ethiopia, 2018.

Methods: An institution-based retrospective cross-sectional study was conducted from March 1, to April 30, 2018, in Felegehiwot specialized hospital. Retrospective card review was done on 447 women who underwent obstetric surgeries at Felegehiwot hospital from September 1, 2016, to August 30, 2017. The systematic sampling technique was used to select patient medical cards.

Results: This study revealed that the prevalence of surgical site infection was 9.4% with [95% CI=6.9% 12.1%].Chorioamionitis [AOR=3.73,95%CI=1.22,11.4], pregnancy induced hypertension [AOR=6.4,95%CI=2.26,18.2], diabetes mellitus [AOR=3.99,95% CI=1.03,15.5], thickness of subcutaneous tissue >2centimeters [AOR= 4.05,95% CI=1.75,9.4], duration of labour >24hours [AOR=5.25,95%CI=2.32,11.8], and urinary tract infections [AOR =7.78, 95%CI =1.4,43.25] were the predictors of surgical site infections.

Conclusion: It has been revealed that the magnitude of surgical site infection rate following obstetric surgery was higher compared to the standard CDC guidelines of surgical site infection. Duration of labour stays more than twenty-four hours, chorioaminitis, pregnancy-induced hypertension, urinary tract infections; diabetes mellitus and thickness of subcutaneous tissue more than two centimeters were associated with surgical site infections. Early detection and intervention of obstetrics and medical complications can reduce the magnitude of surgical site infections.



WEABO54 Availability and readiness of Level 4 hospitals for surgical services in Kenya: Preliminary findings; **Yvonne Opanga¹, Samuel Muhula¹, Elizabeth Wala¹ | ¹Amref Health Africa, Kenya**

Background: In Kenya, 70% of the population lack access to safe, affordable surgical and anesthesia services. No formal study has been conducted to ascertain the availability and readiness of surgical and anaesthesia services in Kenya. The study assessed the availability and readiness of level 4 facilities in Kenya to provide safe surgical and anaesthesia care.

Methodology: This was a census carried out in all level four hospitals in Kenya. A total of 256 facilities were targeted for assessment. Respondents were health facility in-charges. Facility assessment tool adopted from WHO Service availability and Readiness Assessment tool. Data was collected electronically using Open Data Kit and onsite data transmission to the Amref server was done. Descriptive statistics were used in analysis.

Results: A total of 244 of 256 facilities were assessed. On health workforce, 78.48%, 80% and 80% of facilities did not have full time surgeons, anesthesiologists and obstetric and gynecologists respectively. Majority of the workforce in these facilities were clinical officers (n=2,032) and medical officers (n=1,021). About 97.5% offer 24 hour emergency services with 72.9% having functional ambulances. A total of 52.7%, 24% and 73% of the facilities offer general surgery services, orthopedics services and gynecological services respectively. About 72% and 35% had capacity to offer BeMONC and CeMONC services respectively. Blood bank stock outs for past 3 months were 64%. Surgical safety checklists were not available in 54% of the facilities with no quality improvement mechanisms in 31% of hospitals. Over 50% of facilities did not have major operating theatres. About 86% reported to have received support supervision in the past 1 month and 38% of the facilities were not covered by NHIF. Most facilities had health information systems.

Conclusion: There is evidence of inadequate capacity of most level 4 facilities to offer surgical services; an issue that should be addressed in order to achieve objectives of Universal Health Coverage



WEABO55: Introducing the use of the WHO Surgical Safety Checklist in remote settings in Tanzania; **Augustino Hellar¹, John Varallo¹, Edwin Ernest¹, Leopold Tibehebwa¹, Peter Ngugulu¹, Adam Katoto¹, Stella Mshana¹, Meg² | ¹Jhpiego, Tanzania, ²Jhpiego, Baltimore**

Introduction: In 2008, the World Health Organization (WHO) introduced the Surgical Safety Checklist (SSC) to improve safety, teamwork and communication during surgery. SSC utilization varies in different settings; evidence on its utilization in resource-limited settings is lacking. This study assessed the SSC introduction and utilization in the Safe Surgery 2020 GEF/ELMA-funded project in Kagera and Mara regions of Tanzania.

Methods: We conducted an assessment on SSC utilization three months prior (January–March 2018) to project commencement in 30 facilities providing surgery by reviewing 15 patient files per facility (n=450). We analyzed 325 files for evidence of an accurately-filled SSC. Surgical teams from the 30 facilities were then trained on correct SSC use through simulation and actual practice in a hospital-setting, and followed up bi-monthly mentorship to ensure adherence. SSC utilization rate was reassessed for 3 months after implementation (April–June 2018) through facility monthly reports.

Results: Overall, SSC utilization rate was very low at baseline in the two regions at 2.8% (Mara 2.4%; Kagera 3.2%). Health Centres used SSC less frequently (1.6%) compared to hospitals (3.5%). During the intervention, the SSC utilization rate increased to 72% in the two regions, 73% in Kagera and 69% in Mara region. Health Centres used the SSC less frequently 63% compared to hospitals 74%.

Conclusion: Even in resource-limited settings, where knowledge of the WHO SSC is low, it is possible to use a structured approach to introduce and sustain correct use of the checklist to minimize preventable surgical errors



WEABO56: Safe surgery access through mentorship approach; **Medhanit Getachew Mekonnen¹, Manuel Sibhatu¹, John Varallo¹ | Jhpiego¹, Ethiopia**

Background: The Lancet commission on Global Surgery set a minimum of 80% coverage of essential surgical and anesthesia services per country by 2030. Aligned with this, the GE foundation-funded Safe Surgery 2020 project (SS2020), in collaboration with the Ethiopia Federal Ministry of Health (FMOH), started implementation in Ethiopia June 2016 in 16 primary hospitals in three regions, Amhara, Tigray and SNNP, with the aim of reducing surgical morbidity, mortality and referrals, and increased volume of surgical procedures.

Methods: The Jhpiego arm of the SS2020 program focuses on supporting and strengthening increasing access to, safety and quality of the three bellwether procedures: Cesarean delivery, laparotomy, and management of open fracture. Achieving successful conduct of these Bellwether Procedures - reduced morbidity and mortality and increased rapid access. Program interventions included 1) clinical leadership and mentorship training to support and strengthen autonomous problem-solving among surgical teams at the local hospital level, 2) monthly mentorship visits to the mentee hospitals, along with quarterly supportive supervision to promote sustainable impact, , and 3) quality data collection and use for decision-making.

Result: Jhpiego trained over 170 surgical workers from three regions in leadership and mentorship. More than 10, 000 surgeries were performed over the project period (June 2016 to August 2018), with surgical volume doubling during that time across the 16 project facilities. Surgical recording and reporting improved, including Surgical Site Infection (SSI) and Peri-Operative Mortality Rate (POMR), with rates reported as 34(0.3%) SSI and 10(0.1%) POMR over the project time.

Conclusions and Recommendations: Leadership and mentorship are important skills for surgical teams. Strong leadership and mentorship skills can empower surgical teams to make transformative and catalytic changes that, in turn, improve surgical access, safety, and quality. These skills should be scaled globally to all surgical teams.



WEABO57: Preference and knowledge on reasons for caesarean section among urban mothers who have undergone the procedure at Jamaa Hospital, Kenya; **Tanya Wanjiru Muchemi¹, Francis Namisi¹ | ¹Amref International University, Kenya**

Introduction: A caesarean section (CS) involves several incisions made through the abdomen and uterus of an expectant mother to deliver babies. The reasons for desiring CS vary depending on economic status, education, culture, professional and technological developments. We carried out a study to determine the preference and knowledge level mothers have on reasons for CS.

Methods: We adopted a descriptive cross-sectional design. The area of study was Jamaa Mission Hospital in Nairobi, Kenya. All the mothers who had undergone CS were purposefully sampled for the study. After giving consent, a total of 80 mothers were interviewed. Likert scale was used to measure the participant's knowledge levels on the reasons for CS. Responses from the 80 mothers were grouped into Poor (low knowledge on reasons for CS), Good (fair knowledge) and Very good (excellent knowledge). The data was analysed using a descriptive method; presented on graphs and pie charts.

Results: Of the respondents, 65 had tertiary education and 15 secondary education while 69 were employed and 10 unemployed. About two thirds (64%) were in favour of CS and indicated that it is safer for the child, prevents childbirth pain, fistula occurrences and vaginal muscle expansion. The remaining 36% not in favour stated that it is expensive, not Biblical and has a longer healing process. Regarding knowledge levels, 49% and 46% had very good and good knowledge respectively leaving 5% with poor knowledge levels.

Conclusion: There is a correlation between education levels and preference for CS. Women who have had exposure to education expressed more knowledge on the reasons for CS and their desire for the procedure was motivated by this knowledge. It is, therefore, imperative to increase accessibility to safe elective and emergency CS in order to meet the desires for the procedure amongst urban women.



Lightning Oral Presentations

WEABLOO1: Readiness and capacity of training institutions implement leadership, management and governance training (eHSS-LMG) via eLearning in selected African Countries; **Alice Lakati | Amref International University, Kenya**

Background: Health systems in Africa continue to face challenges in leadership management and governance. Amref implemented a five-year regional project through JICA funding that trained senior health leaders in several African countries and there is need to upscale this training through eLearning. The objective was to assess training institutions readiness and capacity to implement eHSS-LMG via eLearning in twenty-nine (29) institutions in six countries.

Methods: A participatory cross-sectional descriptive design was used. An eLearning Readiness Assessment Tool (Declan, 2016) developed in the Philippines and found to be highly reliable with Cronch Alpha of 6 for all required indicators was used. In-depth interviews were carried out with heads of institutions/departments and online questionnaire administered to the alumni. The readiness scale was used to analyse institutional readiness and triangulated with quantitative data.

Results: All the six countries had an ICT policy and the use of technology for training was perceived as an opportunity to expand training. Ministries of health and various regulatory bodies welcomed the use of ICT in training. Majority (86.7%) of the alumni supported the use of via eLearning. The training institutions had adequate ICT infrastructure to support eLearning with variations, institutions with the highest ratings included; KCUC Kilimanjaro Christian University College in Tanzania and CESAG in Senegal. Administrative and resource support for eLearning had an overall rating of 3.7/5 in all institutions. Financial, human and technical resources that support implementation of eLearning had the lowest

Conclusions and Recommendations: Utilization of ICT for training provides an opportunity to expand the programme reach. Majority of the institutions have the required capacity and are ready to implement eLearning. Institutional readiness and capacity is influenced by ICT infrastructure, administrative/technical and human resource support. Training roll out should be systematic and engage regulatory/accreditation bodies to upscale and ensure acceptance within countries.



WEABLOO2: An evaluation of adverse events to improve patient safety using root cause analysis model in a teaching and referral hospital, Eldoret Kenya; **Richard Mogeni | Moi Teaching and Referral Hospital, Kenya**

Introduction: Root cause analysis (RCA) is a tool that can be used when determining how and why a patient safety incident has occurred. Incidents that usually require a root cause analysis include the unexpected death of a patient, serious pressure ulcers, falls that result in injury, and some infections and medication errors. The main objective of RCA is to identify underlying problems that increase the likelihood of errors while avoiding the trap of focusing on mistakes by individuals. The ultimate goal of RCA is to prevent future harm by eliminating the latent errors that so often underlies the adverse events.

Methods: Retrospective review of all the 42 case mortality files for 2013-2014 Financial Year and 18 case files for 2014-2015 financial year was done. The RCA generally followed a pre-specified protocol that begins with data collection and reconstruction of the event in question through record review and participant interviews.

Findings: Total of (45) active and latent errors were identified in the case reviews. Of all this 36 (80%) were resolved by implementation of recommendations made at the time of mortality case reviews.

Conclusion: Use of RCA as a tool for patient safety is feasible in a teaching and Referral Hospital. There was improvement in identifying underlying factors to maternal deaths in the institution and preventive measures to avoid recurrence.



WEABLO03: Amref Health Africa's response to equity: Transform Health in Developing Regions (T-HDR), Ethiopia; **Yared Abera¹, Derebe Tadesse¹ | ¹Amref Health Africa, Ethiopia**

Issues: Ethiopia demonstrated remarkable reduction of maternal and child mortality, but with disparities among regions and districts. Transform-HDR conducted 'facility assessment' and 'service quality assessment' and findings showed that the four developing regional states (DRS) have poorly performing health system (HS) – inadequate leadership and management (LMG), insufficient infrastructures, poor HR management, hard-to-reach community, incomplete service provision, interrupted supply, low data quality and PHC performance, and poor coordination platforms.

Description: Amref Health Africa secured a fund from USAID (May 2017-22) to implement an equity project 'Transform-Health in Developing Regions' in 58 districts with an overall goal to reduce maternal and child deaths and morbidity. Transform-HDR implemented activities to make high impact Maternal Newborn & Child (MNC) health services available, HS strengthened, gender integrated, and evidence generated. The project so far trained 900 health workers (HW) on NC, 258 HWs on – BEmONC, ANC lab investigations, FP, malaria diagnostics and case management, and 813 health managers and HWs trained on gender training, LMG, HMIS, supply chain and supportive supervision. Post training follow up and supports were provided to 50% of the facilities. It established/strengthened regional technical working groups – drug and therapeutic committee, MNC health, maternal death surveillance and response, public health emergency management.

Lesson Learnt: Building a system is a continuous process not a one-time job LMG facilitate to creating responsive HS: assignment of cashier and accountant to initiate health-care financing at health centres; and female CEOs in all health facilities in Somali regional state Training is not the ultimatum to improve service quality; supportive supervision, coaching and mentoring are essential too. Partnering with professional associations

Next Steps: Improve service quality, and create centres of excellence with evidence to scale up, continue building competency of HWs, and leadership capacity of managers reaching hard-to-reach communities Build resilient HS Learn and transform



WEABLO04: Improving service quality and integration to reduce perinatal morbidity and mortality in southwest Uganda;

Gloria Kisakye Ndagire | Amref Health Africa, Uganda

Introduction: The USAID Regional Health Integration to Enhance Services in the South West (USAID RHITES SW) project goal is to accelerate reduction in maternal and perinatal mortality across 16 districts in SW Uganda through strengthening health systems and service integration to improve access and utilization of quality health services. The regional institutional PMR was 33 per 1000 births (Oct-Mar 2016), contributed to by health system challenges including capacity gaps and low demand.

Methods: Strategies employed with a focus on high burden communities include; A District led Approach, Strategic Integration, high impact interventions including; i) FANC emphasizing IPT DOTS, birth preparedness and experience of care; ii) quality labour monitoring; iii) prevention and management of sepsis and preeclampsia; iv) Essential new-born care and Resuscitation; v) KMC and antenatal corticosteroids; vi) MPDSR; vii) Essential equipment; viii) lifesaving commodities management and integration of postpartum FP, WASH and nutrition. Strengthened community engagement and referrals through: i) Family Health groups, VHTs and adolescent peers for FP uptake and service linkages; and male partner engagement.

Results: Improved partograph monitoring, 67% (Oct-Dec 2016) to 87% (Jan-Mar 2018); reduced FSBs by 47.4% from 122 (Oct-Dec 2017) to 64 (Jan-Mar 2018) and birth asphyxia by 18% from 194 to 158; at facilities implementing QI initiatives. Increased perinatal death reviews from 17% Oct-Dec 2017 to 37% (Jan-March 2018); reduction in institutional PMR from 33 per 1000 births (Oct-March 2016) to 18 (Oct to March 2018).

Conclusion: Stakeholder involvement strengthens implementation of site level QI approaches. Feasible integrated service delivery improves quality. Community groups are an effective platform for needs based service delivery. Peer to peer mobilization promotes access and uptake of RH services.



WEABLO05: Youth friendly service as a means to improve quality of care at public health facilities; **Tiglu Haile | Amref Health Africa, Ethiopia**

Issues: Adolescents and young people face various challenges in accessing, and utilizing health services. With the objective of addressing such health care gaps, Amref Health Africa through ASURE (Access, Service and Utilization of Reproductive) health project adapted a youth friendly service (YFS) approach.

Description: To achieve this objective the project devised innovative and comprehensive YFS Construction and renovation of separate YFS corners, equipping the corner with instruments, devices and audio-visuals including indoor games, training and assigning friendly service providers, ongoing monitoring and supporting of medical supplies are made to ensure acceptability, effectiveness and continuity of service. The YFS include packages of age and gender sensitive clinical and non-clinical services most of which are demand driven and are free of cost. Convenient location of YFS corner within health facility premise, having simple client flow system, comfortable waiting area, audiovisuals and poster information and private examination rooms are youth friendly interventions which made young clients to easily access and utilize services.

Lessons learnt: The YFS approach achieves its best because of the existing policy environments, partnership and networking opportunities are well exploited and meaningful youth engagement is being ensured. As a result of current intervention, facility performance, integration and team work and image of health facility showed significant enhancement. This is evidenced by project midterm evaluation done, which revealed positive changes in the life of beneficiaries like service satisfaction by youth increased from 39% to 43%, service convenience and acceptability increased from 24% to 49% and teenage pregnancy decreased from 5.36% to 1.09% from baseline.

Next steps: Now the project is working to ensure sustainability of these quality achieved and scale up the best practice. We are engaging youth, health workers, local government and NGO actors on learning and monitoring activities to deliver maximum benefit for young people



WEABLO06: Quality of antenatal care and associated factors in western Kenya; an assessment of service provision and experience dimensions; **Patience Afulani¹, Leah Kirumbi², Joyceline Kinyua² | ¹University of California, San Francisco, ²Kenya Medical Research Institute, Kenya**

Background: This study aims to describe the quality of antenatal care (ANC) women in a rural county in Kenya received—including both service provision and person-centered or experience Dimensions—and to examine factors associated with each dimension.

Methods: We used survey data collected in 2016 in Migori County, Kenya, from 1,031 women aged 15-49 who attended ANC at least once in their most recent pregnancy. ANC quality service provision was measured by nine questions on receipt of recommended ANC services, and experience of care by 18 questions on information, communication, dignity, and facility environment.

Results: The average service provision score is 10.9 (SD=2.4) out of 17 (64%). Apart from ultrasound, most women received some recommended services once, but not at the recommended frequency. For example, about 90% had their blood pressure measured, and 78% had a urine test, but only 58% and 24% reported blood pressure monitoring and urine test, respectively, at every visit. Only 16% received an ultrasound at any time during antenatal care. The average experience score was 27.3 (SD=8.2) out of 42 (65%), with key gaps in communication. About half of women were always told their blood pressure results and educated on pregnancy complications. About one-third did not understand the purposes of tests and medicines received, and did not feel able to ask questions. The most disadvantaged and disempowered women received the lowest quality ANC. Compared to women from the wealthiest households and those who received some ANC from a hospital, women from the poorest households and those who received ANC in a health center were less likely to receive an ultrasound.

Conclusion: Quality of ANC is suboptimal in both service provision and experience domains, with disparities by demographic and socioeconomic factors and facility type. More efforts are needed to improve quality of ANC and to eliminate the disparities.



WEABLO07: Assessment of benzene, benzoic acid and ascorbic acid in juice drinks in Nairobi County; **Marsha Setian¹, Geoffrey Muriira¹, Arthur Kwena² | ¹Kenya Bureau of Standards, Kenya, ²Moi University, Kenya**

Background: Empirical evidence suggests that sodium benzoate in the presence of ascorbic acid and benzoic acid dissociates to form traces of benzene, a potential carcinogen with epidemiologic evidence linked to the occurrence of acute myeloid (non-lymphocytic) leukaemia and haematopoietic cancer. The objective of this study was to evaluate levels of benzoic acid, ascorbic acid and benzene in water-based juice samples taken from various locations in the Nairobi County Central Business District (NCCBD).

Methods: A quantitative empirical research approach was taken, whereby sixty juice samples were collected from bus terminals (n=30) and supermarkets (n=30), and analysed using standard and validated methods with an HPLC/UV detector.

Results: There was no detected benzene in juice samples from the supermarkets, while it was detected ranging from 2.71 to 21.17ppb in five juice samples (8.33%) from the bus terminals. The maximum allowable limit is 10ppb. Benzoic acid amounts were comparable between the bus terminals and supermarkets, with observable inconsistency within bus terminal samples. Ascorbic acid was only detectable in three juice samples (5%); two from the bus terminals and one from supermarkets. A positive correlation was found between benzene and benzoic acid, $P = 0.61$ and between benzene and ascorbic acid $P = 0.94$, however, it was insignificant.

Conclusion: The study results suggest that the quantities of sodium benzoate in water-based flavored juices in the NCCBD are within the benzoic acid limit of 600 mg/kg. The lower levels of detectable ascorbic contrary to the label claims in 17 juice samples could be attributed to degradation due to poor storage conditions or non-addition during manufacture. There was no significant correlation between amounts of benzene, benzoic and ascorbic acid, in this case, and the occurrence of benzene, with no significant contribution from ascorbic acid was attributed to poor storage and handling conditions.



WEABLO08: Setting the pace: operationalization of Kenya Quality Model for Health–Amref Health Africa in Kenya pilot experience in four selected counties in Kenya; **Walter Kibet Kiptirim | Amref Health Africa, Kenya**

Issue: According to World health organization, Quality healthcare services accelerates the attainment of universal health care. Kenya Quality Model for Health (KQMH) implementation guidelines was launched in 2014 and revised in 2017 incorporating structures, processes and results using an online platform hosted in District Health Information system (DHIS2). Previous KQMH pilots did not go beyond pilot due to implementation and operationalization challenges. This study seeks to demonstrate operationalization stages for successful KQMH implementation.

Descriptions: Amref through the support of GIZ was implementing consultancy on KQMH in Nairobi, Kisumu, Vihiga and Kwale Counties in Kenya through National mentors. Amref has established sustainability concept, engaged key stakeholders, developed the KQMH roadmap, training and monthly mentorship to selected facilities. Mentors established Quality Improvement Team (QIT) and Work improvement team (WIT) structures in all facilities while increasing Quality Improvement (QI)

Lessons learnt: Four counties with 38 health facilities in level 2 to 5 were reached. A total of 100 health workers were directly trained on KQMH. Three counties implemented a weekly facility based 6 weeks Continuous Medical Education (CME) reaching over 500 health workers in total. Baseline KQMH external assessment was done in 38(100%) while only 50% of the facilities had done self-assessment. Mentors initiated QI technical working group in two counties. Monthly mentorship and KQMH documentation in 37 out of 38 facilities was done. County reviews in two of the four counties were done. KQMH Implementation was at 90%.

Conclusion/Next steps: The pace or road map upon which KQMH operationalization in Kenya can be adopted is well documented by Amref and KQMH implementation is possible.



WEABLO09: Post-Training follow up as a quality assurance model for monitoring health workers trained on family planning methods in 10 counties in Kenya; **Janet Muriuki¹, Peter Shikuku¹, Peter Milo¹, Michael Ochieng¹, Charles Opuom¹, Mathew Thuku¹ | ¹IntraHealth International, Kenya**

Background: Research suggests as much as 90% of training resources are spent on design, development, and delivery of training events; 15% yield on-the-job application of skills. Kenya's 2011 Performance Needs Assessment revealed training did not always correspond to service delivery improvement. In 2017-2018, USAID-funded HRH-Kenya Mechanism led by IntraHealth trained 774 long-acting reversible contraception/family planning providers in 10 counties with low modern method contraceptive prevalence rates, at a cost of Ksh 44,255,830. Five medical training institutions were contracted to conduct trainings and post-training follow-up (PTFU). The objectives of PTFU were to determine 1) whether trainees attained required number of procedures for IUCD and Implants as prescribed in curriculum; 2) extent to which trainees were applying skills on-the-job; 3) whether learning has resulted in changes in quality and/or quantity of services; 4) factors that support/hinder job performance, and 5) future needs to inform training improvement.

Methods: PTFU employed a cross-sectional descriptive design incorporating a mixture of qualitative and quantitative methods: observation checklists to assess competence; facility observation forms to assess adequacy of work environment and tools; and structured interviews to elicit trainees' experiences and trainers' perception of trainees' performance. Lot Quality Assurance Sampling was used with 95 respondents.

Results: About 13%, 2%, 45% and 61% of trainees, respectively, attained the required IUCD insertions, removals, implant (NXT) insertions, and removals post-training. Over 69% of trainees demonstrated competence in at least one area assessed and 64% in all areas. All 84% of supervisors reported a positive change in quality of services offered by trainees. Facility data from Nov-Jan 2015/2016, 2016/2017 & 2017/2018 indicate an upward trend in IUCD and implant insertions; IUCD removals reduced 27% while implant removals increased 270%.

Recommendations: PTFU is critical in ensuring trainees are practicing and maintaining quality services towards attainment of universal health coverage.



WEABLO10: Quality assessment of youth friendly service and associated factors at public health facilities in Arba Minch town, Southern Ethiopia. Facility based cross sectional study; **Betebebu Mulugeta | Amref Health Africa, Ethiopia**

Background: The youth section of the Ethiopia faces deeper and complex situations including gender inequalities, harmful traditional practices and sexual and reproductive health problems. Evidences show that health services for youths are poor in coverage and even in quality. Indeed, lack of local evidence that informs the level and factors of youth friendly service (YFS) quality is observed. The objective of the study was to assess the quality of (YFS) and associated factors at public health facilities.

Method: The study was done at Arba Minch town, southern Ethiopia. Youth clients aged from 10-24 years who visited YFS corners of public health facilities participated in the study. Facility based quantitative and qualitative cross-sectional study method was used to conduct the study from September to December, 2017. Sample of 403 clients were included using systematic sampling technique. Data was collected by client-exit interview questionnaire, facility assessment checklist and client-provider interaction observation score sheet. Quantitative data analysis was made using SPSS 16.0 and then logistic regression model was used to identify association between variable. Qualitative findings were coded and analyzed by using content analysis technique.

Result: Total of 403 clients participated in the study (male 52.6% and female 47.4%). The overall result for structure, process and output (youth satisfaction) quality is 54.41%, 42.0% and 49.1% respectively. Sex, age, employment and waiting time were factors which were significantly associated with client satisfaction.

Conclusion: The study revealed that the overall quality of youth friendly health service is poor and below the set criteria. Improvement of facility infrastructures and compassionate client-provider interaction is needed. Short waiting time, age and gender sensitive service should be given by allocating adequate number and mix of friendly providers to satisfy varying needs of clients.



WEABLO11: Strengthening quality and management of MNCH Services using PDQ methodology in central Uganda: a case of comic relief funded project in Kyankwanzi and Nakaseke Districts; **Asianzu Zamzam Yusuf¹, Patrick Bigirwa¹, Teba James¹ | Amref Health Africa, Uganda**

Issue: The divergences in quality perspective frequently as recognized by clients are often categorically non-technical, and tend to relate to convenience and accessibility of services as well as their cultural acceptability. While this may be so with communities, it is very unlikely to health service providers. Partnership defined quality (PDQ) is a methodology whose process can be used to address service delivery and quality issues in a variety of sectors including maternal new-born and child health.

Description: Project supported the PDQ as a community-inclusive approach by selected 90 champions from 15 supported health facilities and trained them as experts in facilitating this methodology.

A total of 78 PDQ meetings were conducted in the 15 health facilities from March 2016 to August 2018. The key achievements were functionality of the quality improvement teams, improved communication between health workers and clients, establishment of suggestion box.

Lessons learnt: Provision of quality service is appreciated differently among users and providers. Understanding the community perspective on use of services is essential for utilization of MNCH services.

Next step: Advocate for integration of PDQ into the existing quality assurance mechanisms at the health facility level and train more PDQ facilitators, for increased participatory community involvement.



WEABLO12: A district stakeholder led approach to strengthening maternal perinatal death surveillance and response in Southwest Uganda; **Gloria Kisakye Ndagire | Amref Health Africa, Uganda**

Introduction: Uganda's Maternal Mortality Ratio is 336 per 100,000 live births (target 320 by 2020) while the country's neonatal mortality rate is 27 per 1000 (target 14 by 2020). In Oct- Mar 2016 the institutional Perinatal Mortality Rate (IPMR) in southwestern Uganda averaged 33 per 1000 births contributed to by; low provider capacity to manage perinatal complications, equipment gaps, poor referral systems and no active mechanism to address contributing factors. By the end of 2015 only 4% of perinatal deaths in the region were reviewed. We describe the process of implementing district led MPDSR to identify, address contributing factors and improve accountability for ending preventable deaths.

Description: Using the national MPDSR guidelines, 288 district stakeholders and 640 health workers from 255 facilities across 16 districts were trained and tooled to implement MPDSR. Practical district led onsite mentorship support prioritizing five high burden districts contributing 71% of all maternal deaths including orientation on the updated implementation tools was conducted over a period of six months. This was integrated in the broader Quality improvement framework focusing on practical death reviews, gap identification and implementation of corrective actions. Multisectoral district and site level MPDSR committees were established to support implementation.

Lessons learnt: The proportion of reviewed perinatal deaths increased from 4% in December 2015 to 23% in September 2017 and rose further to 43% by June 2018. District leadership and involvement led to faster addressing of Knowledge gaps, lack of tools and negative health worker attitude resulting from fear of victimization by stakeholders. District leadership mobilized support to address gaps affecting implementation including response to actions.

Conclusion: A district stakeholder led approach is a more programmatic strategy to successfully implement MPDSR.



WEABLO13: Quality of ante natal care (ANC) through improving the essential laboratory services for ANC in developing regional states (DRS), Ethiopia; **Yared Abera¹, Getnet Hailu¹, Derebe Tadesse¹, Anley Haile¹, Aklilu Yeshitla² | ¹Amref Health Africa, Ethiopia, ²IntraHealth International, Ethiopia**

Issues: Quality ANC facilitates completion of ANC visits and facility delivery. Evidences show that 62% of pregnant women received ANC at least once while a third of them had four or more ANC visits during their recent live birth. This figure drops to 28% for women who gave birth at facilities which half of them don't go for subsequent ANC or delivery. In 80% of Ethiopian health facilities ANC services are available, however, none of these facilities had all essential ANC lab tests - 50% perform haemoglobin and blood group, 43% syphilis, 59% urine-dipstick and only few do urine-microscopy, and below 35% hepatitis. None had complete blood count machine, and lab technicians lack the expected proficiency.

Description: Amref Health Africa secured a fund from USAID to implement a project 'Transform-Health in Developing Regions' in 58 districts with an overall goal to reduce maternal and child deaths and morbidity. Service provider, infrastructure, lab equipment and reagents are essential for ANC lab services. In 70% of the facilities laboratory services were available, and of these 30% don't have lab technicians. Transform-HDR conducted skill improvement trainings for 97 laboratory technician on essential ANC laboratory diagnostics; and for 25 regional reference laboratory managers on supportive-supervision skills.

Lesson Learnt: Inadequate competency of laboratory service providers observed during pre-test (average score <50%) and improved post-test (average score >70%). Quality of care is affected by skills of service providers. Use of V-scan ultrasound with ANC lab services increase ANC uptake Ensure uninterrupted lab supplies.

Next Steps: Improve the ANC laboratory quality in 24 Transform-HDR supported centres of excellence, standardize essential ANC lab diagnostics training materials in collaboration with Ethiopian Public Health Institute, Develop EQA protocol and introduce EQA for ANC into the system Evidence for scale-up.



WEABLO14: Ensuring quality of care for universal health care: Rwanda's accreditation journey; **David Wilson¹, Joy Atwine¹, Edward Kamuhangire² | ¹Management Sciences for Health, Rwanda, ²Ministry of Health, Rwanda**

Issues: Rwanda has made great strides towards reaching UHC over the past two decades through implementing community-based health insurance, increasing numbers of health facilities and expanding the package of services delivered by 60,000 community health workers. However, a strong health system also needs clear standards for care and mechanisms to ensure that services delivered meet those quality standards.

Program: Rwanda embarked on an ambitious journey to deal with the quality of care issues. Beginning with routine quality assessments tied to a program of PBF incentives for service outputs, this evolved into an accreditation program implemented in all hospitals. Key steps included: Creating an enabling environment, setting quality standards, developing tools to measure quality, training surveyors, facilitators and QI teams, Supporting QI interventions to address gaps. Starting with five hospitals in 2013, the three-level accreditation program is now implemented in 43 of the nation's 48 hospitals. Half of the facilities have already achieved level one, while two are at level two accreditation.

Lessons learnt: There were overlaps between accreditation quality assessment processes and those implemented by the PBF program (quality assessment processes were merged). Relying on a small team of part-time certified surveyors, fully employed as government or NGO employees, resulted in high turnover rates (much larger cohort of surveyors are being trained and frequency of surveys has been reduced). Managing data from an 80-page survey was challenging using paper questionnaires, so tablet-based data collection tools were developed.

Next steps: Opportunities remain to: Link insurers' medical claim reimbursement rates to accreditation scores, collect more data to link patient outcomes to accreditation scores, establish an independent institutional home for accreditation, become more sustainable by relying on domestic resources, from insurers and health facilities, who benefit from higher reimbursement rates and added "value for money".



WEABLO15: Expectation and satisfaction of HIV/AIDS patients toward the pharmaceutical care provided at Gondar University Referral Hospital, northwestern Ethiopia: a cross-sectional study; **Begashaw Melaku Gebresillassie | University of Gondar, Ethiopia**

Background: Measurements of patient satisfaction help to assess the performance of health service provision and predict treatment adherence and outcomes. This study aimed to assess HIV/AIDS patients' expectation of and satisfaction with the pharmaceutical service delivered at Gondar University Referral Hospital, Ethiopia.

Methods: An institution-based cross-sectional study was performed from May 11 to 25, 2015. A total of 291 patients living with HIV/AIDS were included using a simple random sampling method. Data were collected using structured questionnaires measuring expectation and satisfaction of respondents using a Likert scale of 1–5 through face-to-face interviews. The data collected were entered into and analyzed using Statistical Packages for Social Sciences. Comparison was made between those respondents who lived in and outside the town.

Results: The overall mean expectation and satisfaction of respondents toward pharmacy setting and services were 3.62 and 3.13, respectively. More than half (56.1%) of the participants were dissatisfied with the comfort and convenience of waiting area and private counseling room. Similarly, 69.3% of the respondents claimed that pharmacy professionals did not give information about side effects and drug–drug and drug–food interactions of antiretroviral medications. There was a statistically significant difference between respondents who live in and outside Gondar town in overall expectation ($t=3.415$, $P=0.001$) with the pharmacy setting and services.

Conclusion: The overall satisfaction level of respondents with pharmaceutical service (pharmacy setting and services) provided at Gondar University Referral Hospital was found to be low, while the overall respondents' expectation from the pharmaceutical services were exceedingly high. The hospital should implement good dispensing practice systems in relation to the services and continuing professional development to professionals in order to improve the satisfaction of patients.



WEABLO16: Challenges in facilitating access to sanitation financing for urban poor communities in Uganda; **Kagurusi Patrick I Amref Health Africa, Uganda**

Background: Sustainable Development Goal 6.1 indicates that by 2030, there should be adequate and equitable access to sanitation and hygiene for all and an end open defecation. In alignment, the National Development Plan II Uganda seeks to increase equitable access to improved sanitation facilities from 68-80% by 2020. With rapid rural-urban migration in Uganda, just 61% of households in urban poor communities have access improved sanitation facilities. One of root causes of sanitation stress is lack of finances to construct such facilities. We describe the challenges encountered in facilitating index urban poor beneficiaries to access financing to construct sanitation facilities.

Description: In 2017, Amref in Uganda began facilitating construction of sanitation facilities for urban poor communities of Kawempe division in Kampala city-Uganda, where latrine coverage is 30% while 50% of households share a latrine. The objective was to enable 500 households construct improved latrines, each costing \$3,014, by 2019. Amref provided a 20% catalytic fund, while landlords were expected raise 25% upfront and 50% was to be provided through a negotiated financing facility. Through exploratory observation, we documented challenges encountered with prospective beneficiaries, financing institutions and local authorities.

Lessons learnt: The main challenges encountered were; lack of information on; specific sanitation needs, availability of financing facility, sanitation facility costs and design options, and beneficiary credit worthiness. There was no clear implementation framework, authorities were ignorant of their enforcement role and financing institutions were highly skeptical.

Conclusion: We recommend a ten-step facilitation pathway that involves assessments in; sanitation needs, beneficiary readiness, beneficiary creditworthiness, local authority readiness, sanitation financing facility availability, constructing material quality and availability; provision of information on - sanitation facility design and cost options, financing terms and conditions as well as beneficiary eligibility determination. Negotiated contracts should be entered into between beneficiaries and financiers.



WEABLO17: Results based financing for community health as a key tool for creating accountability; **Nayantara Watsa | Living Goods, Kenya**

Background: Community health services have tremendous potential to reduce infant, child, and maternal mortality, however, funding for community health remains low. Results-based financing (RBF) is a mechanism that links financing to pre-determined results, with payment made upon verification once the results have been delivered. When well designed, RBFs can significantly improve desired development outcomes by creating accountability, incentivizing cost-effectiveness, maximizing impact, and in turn, amassing resources for community health from risk-averse governments, bilateral, and multilateral donors.

Description: In June 2018, the Government of Uganda (GoU) and Living Goods co-designed Uganda's first RBF mechanism for community health. The Deerfield Foundation committed \$400,000 in funding to Living Goods for results achieved through 320 community health workers (CHWs) reaching 250,000 people in Kyotera and Masaka districts. Noticeably, 100% of the program funding is tied to payment metrics including antenatal care visits, institutional deliveries, pregnancy visits, child assessments, and referral follow-ups by CHWs. Performance tracking is through real-time data collected via a smartphone app. Independent verification is done by Innovations for Poverty Action through phone calls and household visits.

Lessons learnt: With typical RBF projects, preliminary results from the first quarter of implementation ending in September 2018, showed that Living Goods had achieved approximately 88% of expected performance. As we continue to refine verification and performance management systems, performance was expected to improve.

Next steps: By the end of the pilot, we expected to have demonstrated a scalable model for contracting high-impact, cost-effective community health services that the GoU, donors and other partners can adopt in future. This mechanism could be scaled up to support multiple implementers/donors, and transition into an impact bond that requires external investors to provide upfront working capital.



WEABLO18: Amplifying voices of people living with non-communicable diseases in Kenya; **Catherine Karekez¹, Eva Njenga¹ |
¹Non-communicable Diseases Alliance (NCDAK), Kenya**

Issues: In Africa, the growing burden of non-communicable diseases (NCDs) exerts a toll on physical health and economic security threatening the attainment of Universal Health Coverage and the Sustainable Development Goals. NCDs account for more than 55% of hospital deaths in Kenya, yet little emphasis is placed on social accountability and amplifying the voices of citizens affected by these conditions. NCD Alliance Kenya (NCDAK) has, in collaboration with stakeholders, initiated activities to address this gap in health system performance.

Description: ‘Our Views, Our Voices’, an initiative of NCD Alliance and people living with NCDs (PLWNCDs) collected views and experiences of 38 females and 22 males living with one or more NCDs in urban, peri-urban or rural areas of Kenya. A multi-stakeholder workshop provided a national platform for empowering PLWNCDs with skills to advocate for accelerated access to care and prevention of NCDs and resulted in the Advocacy Agenda of PLWNCDs in Kenya. Other avenues to amplify the voices of PLWNCDs in Kenya have included capacity building opportunities and participation in national and international platforms including the UN High Level Meeting 2018.

Lessons learned: PLWNCDs identified challenges in access to prevention and care; lack of community awareness; and capacity building as gaps in the country’s response to NCDs. Often ignored psychosocial aspects of NCDs: stigmatization, lack of recognition and involvement of PLWNCDs in policy making also compromise the health system response to NCDs. Appropriately empowered PLWNCDs can play a key role in enhancing health system performance in responding to NCDs.

Next steps: To further amplify voices of PLWNCDs and strengthen social accountability: empower communities with information and skills for NCD prevention and care; capacity build PLWNCDs; disseminate the Advocacy Agenda of PLWNCDs in Kenya; and formation of a national caucus of PLWNCDs to champion their involvement.



WEABLO19: Improve Access to HIV and AIDS and Maternal Health Services in Underserved Districts through Public Private Partnership (PPP) - End of Program Evaluation Results of the Mkapa Fellows Program II (2013 to 2017); **Adeline Saguti Nyamwihura¹, Rahel Sheiza¹, Ellen M Senkor¹, Rahma Musoke¹ | ¹Benjamin William Mkapa Foundation (BMF), Kenya**

Introduction: Mkapa Fellows programme II was implemented between 2013-2017, aimed to improve HIV/AIDS Care and Treatment, PMTCT and Maternal Lifesaving services through Human resource for health, infrastructure support, capacity building and community involvement in twelve Sumbawanga DC, kalambo DC and Nkasi DC in Rukwa region; Kishapu DC and Msalala in Shinyanga region and Biharamulo DC in kagera, Shinyanga DC (Shinyanga Region), Bariadi DC, Bariadi TC, Itilima DC, Busega DC, Maswa DC , and (Simuyu Region), underserved districts. The overall purpose of this evaluation was to assess outputs, outcomes, impact, relevance, sustainability, value for money and factors that have proved critical in achieving or hindering to achieve the expected change and draw lessons for future programming

Methods: Method used include descriptive design with mixed method approach to data collection. Both qualitative and quantitative data were concurrently collected and triangulated during data analysis.

Results: The evaluation team found and concluded that during the implementation period (2012-2017), MFP II managed to increase access to HIV/AIDS related services to beneficiaries in targeted districts and improved Maternal, Newborn and Child services by increasing availability and access to comprehensive emergency obstetric maternal and care. Furthermore, the program improved HIV/AIDS care and treatment services, Prevention of Mother to Child HIV Transmission (PMTCT) and Maternal Lifesaving services at Primary Health Care levels in 12 Districts.

Conclusion and recommendation: It was concluded to be Relevant, the program can be improved for more gains and sustainability, Efficient was implemented timely, Effective as it contributed to improved Quality of HIV/AIDS care and treatment and Sustainable as it focused on both programmatic and systemic support. The report recommended in future to include youth programs and male involvement, replicate HRH approaches in more regions and programmatic areas and consider innovations to address HRH and infrastructural challenges to enhance sustainability.



WEABLO20: The role of youth advocates in promoting social accountability: A case of Kisumu County; **Faith Abala¹, Olivia Otieno¹ | ¹Network for Adolescents and Youths of Africa, Kenya**

Issues: Young people have been empowered with skills, information and knowledge to be able to put leaders to task and ensure social accountability. Empowering young people to become meaningful participants in Sexual Reproductive and Health Rights policies and service delivery by increasing their advocacy capacity to formulate policy priorities, monitor their implementation and hold decision makers accountable. Participation prevents local elites and opinion leaders from imposing their ideas and value on ordinary citizens thus ensuring that the unheard voices of the youths are involved.

Description: Youth advocates in Kisumu county involvement in promoting governance among local leaders has been via media advocacy, youths share stories on SRHR issues are on platforms like twitter and facebook and the leaders are held accountable since they have to answer why certain issues are not being addressed and what strategy to use .Involvement of youths through public participation, submissions presented and this has been evident with allocation of funds for family planning and establishment of eight youth friendly centres within the county. Cases of high maternal deaths, high HIV and AIDS rates among the youths and teenage pregnancies are issues that have been shared on twitter chat. Youth advocates presenting current issues affecting them to the Members of County assembly, the roles and responsibility of the policy makers and how they can help improve the policies around health.

Lessons Learnt: Strengthening the efforts of youth advocates to scrutinize and hold duty bearers to account through training and capacity building to increase and targeted meaningful participation and civil society engagement and action will lead public officials to act on their commitment.

Way Forward: Empower young people to become meaningful participants in SRHR policies and services by increasing their advocacy capacity to formulate policy priorities, monitor implementation and hold decision makers accountable.



WEABLO21: Transcending the norm: Standards of meaningful youth engagement in policy making; **Sylvia Wamugi | Amref Health Africa**

Background: Kenya has one of the most youthful populations across Africa, with over 70% aged below 35 years. Kenya's constitution provides for citizen participation in policy making as part of social accountability. However, youth are often not represented on decision-making bodies and, when they are, their engagement may not be active or representative of the full set of youth perspectives desired. The objective of this study was to define elements of meaningful youth engagement (MYE), practical models for decision-makers to adopt in MYE and barriers to youth engagement in decision making.

Methods: Data was collected between May and June, 2018: quantitative data through online survey with 1,003 youth advocates from 40 counties (Kenya); participants selected through total population sampling from Y-ACT's online network (Amref's project) and data analyzed through survey monkey. Qualitative data was collected through consultation meetings with youth and policy-makers selected purposively in 5 counties: Nairobi (urban); Kakamega (rural); Kilifi (coastal); Marsabit and Samburu (pastoral) and data analyzed manually through deductive grouping of responses.

Results: Youth defined key elements of meaningful youth engagement – inclusion, diversity, capacity, transparency and accountability. The most favorable model of MYE selected by the youth (71% of respondents) was youth and adults leading and making decisions jointly. Interestingly, the least favorable model (2% of respondents) was youth leading the process with adults having decision-making power. Barriers to meaningful youth engagement included: inadequate capacity and resources to take part in policy processes, different levels of trust between youth and policy makers and cultural barriers.

Conclusion and recommendations: Y-ACT developed minimum standards for MYE based on key elements proposed by the youth, and a scorecard for both decision makers and youth to measure, track and hold both decision-makers and youth accountable in the process of meaningful youth engagement in policy and decision making processes.



WEABLO22: Working with public and private health facilities to improve health services access for long distance truck drivers at East African Community Border Areas; **Dorothy Muroki¹, Boniface Kitungulu¹, Leanne Kamau¹ | 'FHI360, Kenya**

Issues: Along transport corridors in East African Community (EAC) countries, mobile populations, especially long-distance truck drivers (LDTDs) spend significant time on the roads due to the nature of their work. Access to health care services is determined by work schedules, proximity to border areas, hours of operation and range of services provided. They prefer facilities that provide services during hours convenient to them and where they can access services in a short time.

Description: The USAID-funded Cross-Border Health Integrated Partnership Project (CBHIPP) collaborated with North Star Alliance (private sector) and Ministry of Health's Malaba Health Center to provide health services to LDTDs and their sexual partners at Malaba Wellness Resource Center. Over the past three years, the project supported over 20,000 individuals to access HIV testing services and linked more than 1,000 HIV positive individuals to antiretroviral therapy.

Lessons Learned: There should be concerted effort between private sector and national governments to provide health services to mobile and cross-border populations through sustainable models for enhanced service delivery.

Recommendations: There is need to leverage resources between private and public health systems for sustainable health service delivery among these populations. This calls for exploration of viable models that can be implemented through private facilities such as Wellness Resource Centers in the region



WEABLO23: Social accountability at the community level: A case study of Ugunja Youth Parliament Model in Kenya; **Enock Omondi¹, Happiness Oruko², George Oele², Dorcus Indalo², Robert Athewa², Beatrice Oluoch², Sarah Karanja² | ¹Talanta Youth Empowerment Centre, Kenya, ²Amref Health Africa in Kenya**

Issue: The Youth Parliament, initiated in 2009, is an Advocacy platform for the youth in Siaya County to objectively advocate for pertinent socio-economic issues affecting the community. The Parliament works at the ward, sub county and county level to empower communities to demand for their rights to health. The Health System Advocacy Project (HSAP) partnered with Ugunja Youth Parliament (UYP) to implement social accountability initiatives. This paper seeks to explore strategies used by the youth to amplify community voices for action on good governance, transparency and social accountability.

Description: In May 2018 HSAP trained 15 members on Social Accountability, Parliamentary procedures and Budgeting Process. Through continuous mentorship, the youth through community forums mobilize and gather youth voices and data, hold bimonthly parliamentary sessions to advocate for health issues affecting the youth and the community, then document and share health advocacy information to duty bearers including legislators in the county assembly and county government departments.

Lessons Learnt: Ugunja Youth Parliament effectively participated in the Siaya County 2018–2019 budget making process resulting into approval of 7.5M allocation for youth empowerment and a commitment to activate 6 youth friendly centres in Siaya County. This is evidence that the youth voices, which have been missing in mainstream governance, can effectively project community concerns for action by targeted duty bearers.

Next steps: This paper calls for the recognition of Youth Parliament as an effective model for youth participation in Social Accountability where appropriate actions are proposed by power holders and addressed by duty bearers. The paper also calls for scaling up of the model to other communities within Kenya and beyond so as to amplify more youth voices on Social Accountability.



WEABLO24: Purchasing high quality services for the poor from private health providers; the experience of an aggregator model in Kenya; **Wamuhu Mbirwe | Population Service, Kenya**

Introduction: Share learnings about an innovative approach that enhances private health sector contribution towards universal health coverage wherein a social franchise agency acts as an aggregator for small private providers and presents the consolidated entity to NHIF and private insurers for empanelment to offer services to insurance policy holders.

Description: The private sector in many lower middle-income countries (LMICs) is characterized by extreme fragmentation, with numerous small- sized private providers operating clinics and offering a limited number of services at low levels of quality. This limits their ability to be accredited to health insurance and other purchasing schemes. Contracting and managing claims from numerous small private facilities poses an administrative challenge for insurance agencies and government purchasers. Against this backdrop, Population Services Kenya is testing an aggregator model, wherein PSK has set up a network management organization (NMO) that aggregates previously stand-alone healthcare providers into a legal entity that can be contracted by insurance companies to provide services to insurance policy holders. Target Audience was government officials where health financing schemes are being used to purchase services from private providers; social franchise organizations; donors and implementing partners working on private health sector development

Lessons learnt: PS Kenya collected insights from the providers and the payers to better understand the challenges faced by the two stakeholders and co-created the value propositions. As part of their strategies for achieving UHC, governments are embracing health insurance schemes to purchase services for the poor.

Next steps: For private providers, it represents an opportunity for business growth in a hitherto untapped market. However, the highly fragmented nature of the private sector remains a critical challenge. Solving it through an aggregation model will enable public purchasing agencies to procure high quality health services for the poor from private sector.



WEABLO25: Aggregating private health providers in Kenya to better contribute to UHC; **Justus Odeyo | Population Services, Kenya**

Background: Access and affordability of healthcare services are two key elements in achievement of UHC. The two factors are hugely dependent on private sector healthcare providers who are typically poorly regulated and their operations often fraught with inefficiencies, leading to poor quality of care and more expensive yet less sustainable health services. In short, the full potential of the private health sector is currently not being brought to bear in support of

Sustainable Development Goal (SDG) 3.8 – UHC. This learning paper examines alternative measures to achieve the primary goals of the facilities towards UHC by means of aggregation.

Description: The private health sector in Kenya caters for 49% of the overall healthcare provision in the country. This sector however is characterized by extreme fragmentation, with numerous small- sized private providers operating clinics and offering a limited number of services at low levels of quality. Operating in small scale make these facilities lose out on economies of scale. PS Kenya tested the health Network Management Organization (NMO), working with 30 clinics from the larger Tunza Family network, a fractional franchise network of small healthcare providers and supported by PS Kenya. This presentation hence is to share learnings from the initial implementation of the NMO, over the past year and initiate discussions on what next on the support needed by the private facilities to join hands in efficiently and efficiently achieving UHC.

Lessons learnt: The initial learnings from the pilot of the NMO offering shows that stakeholders are happy to test ideas that lead to sustainable cost reduction in health. Aggregation was seen to contribute in a big way to the achievement of UHC by increasing efficiency in quality, supply and demand aspects of healthcare services delivery and promote sustainability by offering value to all stakeholders in the private healthcare sphere



WEABLO26: Capital health: an integrated program to improve children's health services implemented by Amref Health Africa
Mamadou Diouf | Amref Health Africa, Senegal

In Senegal Kolda and Sedhiou Regions, infant and child mortality is particularly worrying, respectively by 105 ‰ and 78 ‰, as in Guinea in Mamou Region where it is still high by 103‰ compared to the national average, due to the deficit of integrated services in childhood, thus compromising the harmonious development of the child by accentuating their vulnerability. Faced with this situation, Amref Health Africa is implementing the Capital Santé model, whose objective is to contribute directly to reducing the morbidity and mortality of children by offering them optimal health capital.

Description: In « Capital Santé » Model the child is centered in a three-dimensional device: School, family and health facilities fitting a multi-sectoral network of actors contributing to meeting the children's needs in health, social action, family, education by focusing on demand, service delivery and supply sides. Increasing demand creation is ensured by the community and school approach engaging the CBOs, while an optimal and sustainable level of care is guaranteed by health providers. In addition, community leadership and the First Phase's results have created a community-rooted trust that contributes to ensuring the sustainability of the interventions.

Results: 62,803 children reached with outreach and surgical services Increased health coverage reaching 66,241 children and 32,223 WRA Strengthening of community leadership through a network of 205 teachers and 130 community actors Supporting Health System by training 398 health providers on integrated child health services and use of the suitcase and telemedicine glasses.

Conclusion: The project allows a holistic care of the child in his living environments. This support integrates two satellite dimensions namely the psychological dimension and the social dimension



WEABLO27: Strengthening newborn care services and leadership for improved outcomes | Shiphrah Kuria¹, Stephanie de Young², Kevin O'Neill³ | ¹Amref Health Africa, ²Hospital for Sick Children, ³Amref Health Africa, Canada

Issue: Preventable newborn mortality and morbidity continue to be unacceptably high in Sub-Saharan Africa. A Specialized Newborn Care Education course was developed and delivered in partnership with The Hospital for Sick Children (Toronto, Canada) and Amref Health Africa as part of the Canada-Africa Initiative to Address Maternal, Newborn and Child Mortality, to build the capacity of health workers to improve newborn outcomes; track 2.2. Intervention aimed at training 135 health workers using competency based methodology in Malawi, Tanzania and Ethiopia between 2017 and 2019.

Description: Assessment was done in each country to adopt the curriculum to the context and needs. To date 104 health workers have been trained across the 3 countries; approximately 60% female, 40% male. To go beyond knowledge acquisition, innovative methods of training including use of mannequins, demonstrations and simulations were included. Practical sessions included clinical coaching and support to reorganize neonatal care areas to enhance quality & efficiency. Leadership competencies were integrated throughout the training and trainees developed action plans identifying practical areas of change to implement in their clinical environments. Pre-and post-tests were done for knowledge level and self-reported confidence, and post tests done for skills.

Lessons learnt: It is critical to adapt the training to the context; some countries adapted the curriculum for their national use. Sessions were co-facilitated by Canadian and in-country educators to ensure relevance to local context and build capacity among educators. Innovative training methods enhance knowledge and skills acquisition. At all sites there was significant knowledge gain on post-tests. Follow-up after training helps support action plan implementation and ensure competencies are translated to practice to bring about real change to service delivery.

Next steps: Completion of remaining trainings and continue engaging governments to institutionalize competency based, leadership focused newborn trainings.



DAY 3 - THURSDAY

Oral Presentations

THABOOL: Assessment of private health care provider capacity for the provision of Tuberculosis care and treatment services: Case of selected Gold Star Network and Tunza franchised facilities in Kenya; **Joshua Limo¹, Irene Mbithi¹, Jeremiah Chakaya¹ | ¹Kenya Association for the Prevention of Tuberculosis and Lung Disease, Kenya**

Background: Kenya has a large burden of TB; Prevalence survey carried out in 2016 suggested that nearly 40% of TB incidence are missed yearly. Some of the missed TB may be people seeking and receiving care in the private health care sector, thus private health care provider engagement is a critical intervention in the fight against TB in Kenya. This assessment was to determine the capacity of TB services provision in private health care facilities among the Gold Star and Tunza franchises in order to define interventions needed to offer quality TB services.

Methods: A facility-based assessment was undertaken in April 2018 in 51 facilities across 7 counties. Information was sought on availability and adequacy of appropriately trained Health care workers, knowledge of the health care workers on currently recommended TB care and management practices and the state of the facility's physical infrastructure to support optimized TB care including TB diagnostics.

Results: Ninety-six (96%) of the facilities had a physical environment that was judged adequate for provision of TB services, 47% had chest radiography on site and 96% were capable of carrying out AFB microscopy. 92% of the health facilities were already providing TB treatment services. 90% of the health facilities had at least 3 cadres of health care professionals with majority being nurses (47%). Most health care workers were able to correctly identify presumptive TB case and knew the necessary actions to take upon TB screening in accordance with NTP guidelines, however, 75% of respondents were unsure about appropriate practices for managing drug resistant TB.

Conclusion: Majority of facilities met basic requirements of TB care service provision, which provides good opportunity to develop appropriate interventions to enhance private provider engagement in TB management.

THAB002: Water and sanitation for health and economic improvements: A case of RAIN Project in Serengeti District, Mara Region, Tanzania; **Mloelya Paul | Amref Health Africa, Tanzania**

Issues: By 2017, water supply and sanitation coverage in Serengeti district was low standing at 58% and 10% respectively. This is far way below the national targets and Sustainable Development Goals (SDGs). Poor water sanitation and hygiene (WASH) undermines public health and human development. Populations in these areas continue to be ravaged by WASH related diseases. In 2017 for example, 323 Dysentery cases were reported especially in wards where open defecation was rampant.

Description: Amref health Africa is implementing a Replenish Africa Initiative (RAIN) project focusing on increasing access to water and safe sanitation services, as well as economic empowerment for women and youth. This is attained through sanitation promotion, training of water committees, demand creation, construction of wash facilities, and youth and women mobilisation and empowerment. The project covers four wards with a total population of 35,503. WASH facilities were constructed and the number of household impacted were collected on monthly basis and analyzed.

Lesson learnt: Sanitation status has increased from 10% to 14% and access to water has increased 58% to 61% within the project area by 2018. The role of the government was key in accelerating the achievement in these results. There were major contributions of community dynamics such as social norms, social learning, social capital, trust and mutual collaboration, social sanctions and social surveillance as major drivers of sanitation behavior change.

Recommendations: There is great potential in improving public health and human development through water and sanitation. Increase in access to WASH mainstreams economic empowerment in women and youth. Project scaling up in increasing access to WASH services in communities in demand through engaging private-public partnership in attaining national WASH targets.



THABO03: Public Private Partnerships to increase availability of health workforce to drive universal health coverage: The case of the Afya Elimu Fund; **Ian Wanyoike¹, Peter Milo¹, Janet Muriuki¹, James Gachari^{2,1}**¹IntraHealth International, Kenya, ²Higher Education Loans Board, Kenya

Issues: Achieving Universal Health Coverage (UHC) is contingent upon availability of skilled health workers (HWs). Kenya, however, faces shortages with a health workforce to population ratio of 1.3:1000 which is below World Health Organization recommendations. High cost of medical education (USD\$ 4,280 for a 3.5-year diploma program) contributes to shortages of HWs available for UHC.

Description: Traditionally in Kenya, the cost of training mid-level HWs is borne by trainees and their families. In 2013, USAID through IntraHealth International, in partnership with Ministry of Health (MOH) and Higher Education Loans Board (HELB), established the Afya Elimu Fund (AEF). AEF is a revolving fund that offers tuition fee loans at 4% interest rate (compared to 14% commercial rate) to needy mid-level medical trainees in cadres critical for UHC. AEF established an oversight committee for governance, appointed HELB as fund manager, and defined a partnership framework for resource mobilization with public and private sectors aligned to Corporate Social Responsibility (CSR) and shared value. AEF developed publicity materials for awareness creation and implemented rigorous monitoring and evaluation for accountability to key partners. AEF is in the process of developing a strategic plan to anchor its sustainability.

Lessons Learnt: By June 2018, AEF had grown from 2 to 10 partners (3 public, 7 private); with USD 12.2 million mobilized (67% from private sector) from the USD 1 million seed funding from USAID. 19,241 students have been supported; 82% are from high HIV disease burden, marginalized, and hard-to-reach regions. 4,865 beneficiaries have graduated, with 21% providing UHC priority health services.

Recommendations: Sustainable financing and public-private partnerships have the opportunity to provide educational access to needy students interested in becoming HWs that will in turn increase population access to quality health services.



THAB004: Improving access to nutrition services in Homa Bay County, Kenya; **Francis Aila¹, Gordon Okomo¹ | ¹Ministry of Health, Kenya**

Issues: Promulgation of the new constitution in Kenya resulted in devolution of health services to regional governments. At devolution, there were very few nutrition support sites in Homa Bay County which translated to few clients being able to access nutrition assessment counseling and support (NACS). Engaging with other non-state actors to accelerate access to nutrition services was lacking and this was greatly needed to change the situation.

Description: Mapping of nutrition support sites was done at devolution and plans put in place to scale up the nutrition support sites given the small number that was available. Resource mobilization was done to conduct trainings for health care providers across the county. Five training sessions on NACS were conducted to about 150 health care workers. This was followed by provision of reporting tools and food supplements to the newly opened sites.

Lessons learnt: The number of nutrition support sites increased from 33 to 135 and documentation of the number of clients reached with nutrition services improved from 40 in 2013 to 24,742 in 2017. From the interventions it was realized that involvement of all stakeholders in provision of nutrition services yielded results. Secondly reporting on the achievements made during the interventions enabled the county to acquire more support to scale up nutrition support services.

Recommendations: The county has plans to continue monitoring the available sites and report on their progress. More effort will be made to scale up further so that at least 75% of health facilities are able to provide NACS by the year 2025. Last but not least an analysis of the impact of this scale up will be done to ascertain the gains made in the community by moving services closer to the people.



THABO05: Government resource contributions to the private-not-for-profit sector in Uganda: Evolution, adaptations and Implications for Universal Health Coverage; **Aloysius Ssenyonjo¹, Justine Namakula¹, Ronald Kasyaba², Sam Orach², Freddie Ssenigooba¹ | ¹Makerere University, Uganda, ²Uganda Catholic Medical Bureau, Uganda**

Background: A case study of government resource contributions (GRCs) to private-not-for profit (PNFP) providers was done with a focus on the largest nonprofit provider network - the Uganda Catholic Medical Bureau (UCMB). The framework of complex adaptive systems was used to explain changes in the resource contribution and the relationship between the Government and UCMB from 1997 to 2015.

Methods: In-depth interviews with the main actors on both sides provided the qualitative data. The trends for GRCs and service outputs were constructed from existing database used to monitor service inputs and outputs for the study period. Study findings were validated at two meetings with a broad set of stakeholders.

Results: The GRCs and the relationship were characterized by three major phases - 1) Initiation phase, 2) Phase of rapid increase in GRCs, and 3) Declining GRC phase. The main factors responsible for the dynamic relationships were 1) Financial deficits at PNFP facilities, 2) advocacy by PNFP network leaders, 3) changes in government resource envelope, 4) variations in the “good will” of government actors and 5) changes in donor aid modals. Complex coping strategies revolved around changes in user-fees, operational costs of PNFPs and government expectations from UCMB. Quantitative findings showed a progressive increase in the service outputs despite the declining value of GRCs for the study period.

Conclusions: The GRCs form a complex interaction between government and PNFPs. The UHC agenda should pay attention to the factors that interact in complex ways to shape how government work together with PNFPs to advance UHC. GRCs could be leveraged to mitigate the financial burden to communities served by PNFPs. Governments planning to advance UHC goals should explore policies to expand GRCs to subsidize the operational costs of PNFPs. Embedded research will be needed to support the complex adjustments need to solve emerging problems.



THAB006: Stepping into the antimicrobial resistance war at Kigali University Teaching Hospital (CHUK): The challenges around Staphylococcus Aureus; **Nyirabanguka Chantal¹ | ¹University of Rwanda, Rwanda**

Background: The importance of Staphylococcus Aureus (S. Aureus) as a persistent nosocomial and community-acquired pathogen has become a global health concern in both developed and developing countries. S. Aureus is notorious for its ability to develop antimicrobial resistance but there is lack of recourses and inadequate surveillance system. In addition, the prevalence of its antimicrobial resistance in Rwanda is remains unknown. This study aimed at assessingsensitivity and resistance patterns of S. Aureus infections at the Kigali University Teaching Hospital (CHUK).

Method: A descriptive retrospective study was conducted on cultured blood, pus, urine, and wound swab specimens obtained over a period of 3 years (January 2015 to May 2017) and data analysis was done using SPSS v23.

Result: Culture results were available in 365 samples. 228 out of the 365 samples (62.5%) were tested for Oxacillin and in 152(66.7%) resistance was found. In samples resistant to Oxacillin, 91% was found to be sensitive to Vancomycin, 75.4% to Clindamycin, 44.6% to Erythromycin, 44.5% to Tetracycline and 62% to Ciprofloxacin.

Conclusion: Community acquired S. Aureus was widely resistant to available antibiotics. Vancomycin was found to be the most effective against Oxacillin resistant S. Aureus followed by clindamycin and ciprofloxacin. Consequently, these are the antibiotics of choice in case MRSA is suspected or confirmed.

Key words: Staphylococcus Aureus, KUTH, Antimicrobial resistance, community acquired



THAB007: Improving access to healthcare products through an optimised demand driven healthcare supply chain;
Munyaradzi Bvuchete¹ | ¹Stellenbosch University, South Africa

Issues: Despite the recognition that there is lack of access to healthcare by most vulnerable people, it has been recognized that the management practices in healthcare supply chains are still in infancy and are highly uncoordinated resulting in poor healthcare outcomes, high healthcare supply chains costs and operational inefficiencies.

Description: Studies argue that there is lack of demand and inventory visibility in healthcare products supply chains. This causes the bullwhip effect. The bullwhip effect then causes variability in demand orders in healthcare supply chains and stock-outs. At this time of research, no common maturity model exists that unifies main components from existing supply chain maturity models with healthcare supply chain processes and key success factors for demand driven supply chain management (DDSCM) to assess the effectiveness of healthcare products supply chains and further guide them in the development of an improvement road-map.

Lessons Learnt: In spite of the complexity of healthcare supply chains, opportunities for improvement are multiple. Improvements in the healthcare supply chains are difficult to achieve by one revolutionary step but by progressive evolutionary steps towards mature states. Therefore, the motivation for developing this DDSCM maturity model is derived from the recognition that many existing maturity models have shortcomings. It also appears that there is no DDSCM maturity model in the literature searched that tries to address healthcare SCM. The lack of an integrated demand-pull model for healthcare supply chains represents a research gap that this study intends to fill.

Recommendation: It is believed that the demand driven supply chain management approach has the potential to increase access to healthcare products for everyone, including the most vulnerable ones at a minimum cost.



THAB008: Impact of health insurance coverage on oral care demand among beneficiaries using Mutuelle Health Insurance: a case of Muhima Hospital Rwanda; **Harerimana Ingabire Eliane¹ | ¹University of Rwanda, Rwanda**

Background: In recent years, a growing number of governments and international donors have promoted mutual health organizations (MHOs) as a means for providing financial risk protection. MHOs, is a voluntary membership organization providing health insurance services to their members. In the world, especially in Africa it is difficult to access dental care when any health insurance is not available or when the insurance coverage is low because of the very high cost of dental procedures. This study expected to uncover factors which could be a road map of policy review on Mutuelle Health Insurance (MHI) in order to improve utilization of oral health services. The study aims to determine impact of health insurance coverage on oral health care services demanded by beneficiaries attending Dental clinic at MUHIMA Hospital using MHI.

Methods: A Cross sectional prospective study was adopted. A total of 323 study subjects aged 18 to 65 years old, attending dental service at Muhima Hospital were recruited. Data was collected by using questionnaires and analyzed using SPSS.

Results: The study showed low coverage of MHI for people in low and middle class has a negative impact on their oral health demand. Most respondents (71.4%) declared not receiving all dental services they needed as their first priority. They choose cheap dental treatment because some of dental procedures are too expensive and they cannot pay 10% cost sharing.

Recommendations: Beneficiaries of MHI should receive treatment anywhere, the 10% cost sharing fee should be reduced for some dental procedures which are still not being used as first priority and the insurance to cover all dental procedures.



THAB009: Assessment of virological response in patients on first line of Highly Active Anti-Retroviral Therapy at Rwanda Military Hospital; **Maguy Mbabazi¹, Vincent Sugira², Jean Paul Rwabihama¹, Sabin Nsanzimana³ | ¹University of Rwanda, Rwanda, ²Rwanda Military Hospital, Rwanda, ³Rwanda Biomedical Center, Rwanda**

Background: Rwanda has successfully implemented a scheme that expanded HIV services across the country, free of charge, to ensure national Highly Active Anti Retroviral Therapy coverage. This study aims to assess the rate of viral suppression as well as the socio-demographic behavior and clinical factors associated with viral suppression.

Methods: This was a retrospective cohort study at the Rwanda military hospital. The principal outcome was the viral load suppression measured as VL < 20 copies /mL. The eligibility criteria were: (1) all alive HIV patients above 15 years, (2) on first line of highly active antiretroviral therapy for the last 2 years. A bivariate and multivariate analysis were done to identify any correlation between the viral load suppression and social demographics, clinical, immunological and behavior factors.

Results: A total of 443 patients were included in this study with the mean age was 43 years. Eighty-two percent were male, and the baseline CD4 count was 290 cells/mL. The overall viral suppression rate was 80.8%. The majority of patients were enrolled in WHO stage 1. In the multi variate analysis, WHO stage 3 (advanced HIV infection) was associated with high rate of suppressed viral load with OR 7.23 (95% CI 1.05-16.82; p value < 0.00423) and being diagnosed with HIV infection for 5-10 years with OR 0.11 (95% CI 0.17 – 1; p value 0.0494) and good adherence with OR 174.2 (95% CI 46.2-251.3; p value < 0.001). The socio-demographic characteristics (age, gender, residence), type of HAART, baseline CD4 count, years since initiated to HAART were not significantly associated with viral load suppression.

Conclusion: Knowing the rate of viral load suppression and recognizing the factors related to suppressed viral load would contribute to achieve and sustain a higher virological suppression in patients under HAART.



THABO10: PLC Analysis of solid phase extracted Aquacultural Veterinary Pharmaceuticals in water; **Olatunbosun Olukoya**
Glaxosmithkline pharmaceuticals, Nigeria

Background: Pharmaceuticals are emerging contaminants that are entering the water system. These include veterinary drugs which are used for treating, mitigating or preventing illnesses or influencing specific body functions in animals. This research is aimed at using HPLC to detect the presence of veterinary drugs that were extracted in fish pond-waste and river water from an aquacultural environment in Ijebu-ode (Ogun State-Nigeria) using solid phase extraction cartridges.

Methods: The three pharmaceuticals detected were oxytetracycline, Tetracycline and chloramphenicol. SPE Cartridges with C8, C18 and cyano sorbents were respectively used to extract the targeted pharmaceuticals in the water samples after a recovery test was conducted. C18 has the highest recovery for oxytetracycline, C8 for both tetracycline and chloramphenicol. All these 3 pharmaceuticals, except tetracycline were found in varying concentrations with the highest value for chloramphenicol found to be 0.60ng/ml and that of oxytetracycline was 0.46ng/ml.

Conclusions: These results showed the prevalence of pharmaceuticals in water in this small community which sometimes depend on river water for nourishment purpose. This calls for a need to establish modern waste treatment methods that can conveniently remove pharmaceuticals before they are discharged into the environment in an attempt to preserve our ecosystem.



THABO11: Cost analysis of Human Papillomavirus related cervical diseases and genital warts in Swaziland; **Themba Ginindza | University of KwaZulu-Natal, South Africa**

Background: Human papillomavirus (HPV) has proven to be the cause of several severe clinical conditions on the cervix, vulva, vagina, anus, oropharynx and penis. Several studies have assessed the costs of cervical lesions, cervical cancer (CC), and genital warts. However, few have been done in Africa and none in Swaziland. Cost analysis is critical in providing useful information for economic evaluations to guide policymakers concerned with the allocation of resources in order to reduce the disease burden.

Methods: A prevalence-based cost of illness (COI) methodology was used to investigate the economic burden of HPV-related diseases. We used a top-down approach for the cost associated with hospital care and a bottom-up approach to estimate the cost associated with outpatient and primary care. The current study was conducted from a provider perspective since the state bears the majority of the costs of screening and treatment in Swaziland. All identifiable direct medical costs were considered for cervical lesions, cervical cancer and genital warts, which were primary diagnoses during 2015. A mix of bottom up micro-costing ingredients approach and top-down approaches was used to collect data on costs. All costs were computed at the price level of 2015 and converted to dollars (\$).

Results: The total annual estimated direct medical cost associated with screening, managing and treating cervical lesions, CC and genital warts in Swaziland was \$16 million. The largest cost in the analysis was estimated for treatment of high-grade cervical lesions and cervical cancer representing 80% of the total cost (\$12.6 million). Costs for screening only represented 5% of the total cost (\$0.9 million). Treatment of genital warts represented 6% of the total cost (\$1million).



THABO12: Aggregation of health providers; is this the next big thing towards UHC; **Justus Odeyo | Population Services, Kenya**

Background: Inability to afford any sort of health insurance scheme is the thin line between survival and falling into complete poverty in case of catastrophic health expenditure. In a bid to realize the Sustainable Development Goal (SDG) 3.8 – Universal Health Coverage, public and private payers should synergize their goals and efforts in ensuring easier methods of health financing. For the last 4 years, Insurance Regulation Authority (IRA) reported huge losses for the medical line of insurance. With the huge losses, penetration of short term insurance where medical insurance falls stands at 1.87% exposing in cases of catastrophic health losses. Insurers have hence developed cold feet in developing micro health products which would go a long way in complementing the National Health Insurance Fund (NHIF). This trend therefore makes access to insurance as form of health savings unreachable to the bottom of the pyramid population. This learning presentation seek to explore the powers of aggregating private health providers into a structured network to take control of health financing as a measure of improving affordability of medical services and influence the cost of health insurance both from the social insurance and the private insurance perspective.

Description: PS Kenya tested the piloting of the first Health Network Management Organization (NMO) with the seed funding supported by AHME. The idea was to bridge the operational inefficiency gaps within the overall Tunza franchise, a fractional franchise of privately owned small community clinics.

Lessons learnt: Learnings from the pilot indicated to a few insights which may need to be tested further. The hints included; Private payers are willing to price micro health products; how can the providers share data? Insurers agree that aggregation is a potential game changer, what is the best? How can private providers contribute to policies on NHIF pricing?



THABO13: Financial burden of household out-of-pocket expenditure on hospital visits in Nigeria: Findings from the Nigerian general household survey-panel; **Diltokka Gideon Kevin¹, Damian Lawong Bansah¹ | ¹Ahmadu Bello University, Nigeria**

Background: Household individual spending for health consultancy out-of-pocket is an important way of financing expenditure on hospital visits. However, limited empirical knowledge is available on the determinants of these expenditures. There is high reliance on out-of-pocket health payment as a means of accessing health services in Nigeria. This has continued over time despite the general consensus to move closer to Universal Health Coverage (UHC) and sustain it when achieved. The aim of this study is to examine out-of-pocket health spending amongst households in Nigeria.

Methods: The characteristics of private households that influence the probability as well as the extent to which they spend out of their pocket on drugs/medicines over-the-counter during hospital visits (OOPsHV) in Nigeria were analysed.

Household panel data on out-of-pocket spending over-the-counter during hospital visits and household characteristics from the Nigerian General Household Survey-Panel 2-15/2016 was used. The focus is on household spending on drugs/medicines over-the-counter for hospital visits. To adjust for the specific characteristics of the data, we compare two different econometric approaches: a two-part model, and the double hurdle model.

Results: The most preferred model selected is expected to give a quite consistent picture. The probability of spending on drug/medicines over-the-counter is to be strongly influenced by the household structure. It increases with the literacy level, sector and employment status of household members. The level of spending over-the-counter remains largely ambiguous, however age, literacy level and distance travelled for consultation influence the expenditure out-of-pocket. The employment status of household plays an insignificant role in explaining the expenditure level.

Conclusions and Recommendations: The paper gives useful insight into the determinants of out-of-pocket spending during hospital visits among household members. This shows the urgency with which policy makers need to increase public health funding and provide social health protection plans which is currently lacking among households in Nigeria.



THABO14: Reducing the cost of medical referrals through medical camps; a case of medical camps conducted in Kitgum Hospital (April to September 2018); **Brenda Mwesigye¹, Emmanuel Ebitu¹ | ¹Amref Health Africa, Uganda**

Issues: Medical referrals significantly cost hospital budgets and household incomes. The expenses associated with medical referrals include transportation, medicines, meals hospital stay and allowance for the health workers. The big turn of clients requiring specialized medical services during camps is an indication of the backlogs of cases requiring referrals.

Description: Four medical camps were conducted in Kitgum hospital in collaboration with the Ministry of Health, Regional Referral Hospitals, and the district local government. The camps were run for a period of five days each during different months. Medical consultations and treatment were provided in the medical specialties of Gynaecology, Internal medicine, Orthopaedics and Ophthalmology.

Lessons Learnt: The four medical outreach camps were conducted within a period of nine months. A total of 555 medical consultations and treatment were provided in the medical specialties of Gynaecology, Orthopaedics, Internal medical and Ophthalmology. The backlog of cases that should have been referred to the Regional Referral Hospital were treated during the camps. These included 20 orthopedics, 18 Gynecological and 46 eye surgeries. According to the medical superintendent, the outreach camps reduced the cost of referrals on the hospital budget by more than 70% during the period.

Recommendations: Medical outreach camps significantly reduce the cost of referrals on the hard to reach hospitals and communities.



THABO15: Social protection for inclusive healthcare through free maternity services in Kenya; **Stephen Okumu^{1,2} | ¹Maseno University, Kenya, ²University of Bern, Switzerland**

Introduction: This paper is based on fieldwork experiences from nine months ethnography in Kilifi County Kenya. Social protection in Africa increasingly aims to institutionalize systems that guarantee assistance for the very poor and protect the vulnerable against livelihood risks. To improve access to reproductive health services, the Kenyan government abolished delivery fees in all public health facilities in 2013. With this policy, health facilities are reimbursed for the costs of delivery services so that women can access maternal care for free. With the government directive for free maternity services; every expectant mother in Kenya has on paper the right to free maternity care. However, based on evidence from the field, in reality, these free maternity services are far from free as the most vulnerable women incurred many 'hidden costs' leading to catastrophic health expenditure. Moreover, in case of complications women are not protected by the scheme forcing them to sell off assets to meet the costs. Sometimes, to qualify for free maternity care women even have to bring their own gloves for delivery.

Lessons learnt: These out-of-pocket expenses may prevent the poorest women from seeking care at health facilities and instead deliver their babies at home by assistance of Traditional Birth Attendant (TBA) as this is altogether still cheaper than the 'free' maternity services. It also emerged that there were social risks linked to social discrimination and gender inequality as women had low bargaining power in households and were likely to still languish in poverty. Moreover, the inadequate human resource in public health facilities led to overburdening of health workers resulting in lower quality of care. Health providers were frustrated with the ever-changing policy approaches and insufficient compensation and went on a large-scale strike which further eroded people's trust in the public healthcare system.



THABO16: The impact of performance based financing on the poor's utilization of maternal and child health services in Sub-Saharan Africa: A systematic review; **Tichatyei Alison Mhazo | KNCV Challenge TB Project, Malawi.**

Background

Performance Based Financing (PBF) has been promoted as an innovative financing reform with the potential to improve maternal, neonatal and child health (MNCH) outcomes in Sub-Saharan Africa. This claim is based on the premise that PBF improves the quality of MNCH services and utilization by the poor. PBF is a complex policy intervention and causal theory cannot establish on a priori basis whether it benefits the poor or not. This study is a systematic review to analyze whether there is empirical evidence that PBF benefits the poor.

Methodology: Electronic databases searched: MEDLINE, SCOPUS, GLOBAL HEALTH, IBSS and COCHRANE. Snow balling, grey literature search and google search was done. A modified PICOCS Framework (Population, Intervention, Comparator, Outcomes, Context and Study Design) was used for study selection. Randomized Control Trials (RCTs), before and- after studies, interrupted time series, cluster sample design and surveys conducted in Sub-Saharan Africa were eligible for inclusion. A PRISMA flow diagram was used to screen the studies.

Results: Eleven out of 4738 studies were eligible for this systematic review. Four studies demonstrated PBF's financial protection effect. For institutional deliveries two studies showed a pro-poor effect whilst two studies showed a pro-rich effect. PBF improved immunization rates amongst poor children in one study. Utilization of antenatal care services was pro-rich in one study. Two studies showed PBF's pro-poor effect on medicine availability.

Conclusions and recommendations: There were few studies on the impact of PBF on the poor in the context of MNCH services in Sub-Saharan Africa and more research is required. The available evidence shows that PBF can be pro-rich or pro-poor. For PBF to enhance universal health coverage, policy makers need to incorporate design features that prioritize the vulnerable and hard to reach populations. Demand side incentives and equity bonuses are critical considerations.



THABO17: Performance monitoring for increased accountability at the Ministry of Health; **Elizabeth Wangia¹ | ¹Ministry of Health, Kenya**

Description: Monitoring of impact of various interventions and use of information generated for decision making is critical for enhanced accountability at all levels of the health system. Timely, reliable and comprehensive data is pivotal in assessment of impact of interventions.

Progress has been made to improve the quality of data generated, and information products developed to meet the needs of various stakeholders. This includes regular data quality audits (DQAs) at facility level, development of information systems interoperability guidelines, and development and use of user-friendly platforms such as the facility performance scorecards, reproductive, maternal, neonatal, child and adolescent health (RMNCAH) scorecards, SDG monitoring scorecards and a UHC composite index.

Lessons learnt: Despite the regular DQAs, evaluation of the recommendations of the DQAs is still a major challenge. There is limited utilization of the scorecards developed, which are good social accountability tools as they are to be displayed at the hospital manager's office, and at an area easily accessible by the public; and are easy to generate and use. However, management scorecards, to measure the performance of the senior leadership have not been developed.

Recommendations: Regular performance review meetings at county and national levels, with stakeholders including the community will enhance governance and social accountability. Development of an information-needs plan will guide packaging of information products for various audiences, in a periodic manner. This will ensure that decisions made are consistent with the information shared. Strengthen collection and reporting on indicators on leadership and governance, and development of management scorecards will also enhance performance of the decision makers and ensure use of data and information for decision making. A competence-based capacity building plan for data analysis; generated from a data analytics capacity assessment will result in information products of good quality and relevant to the different audiences.

Key words: Accountability, Decision-making, information



THABO18: Use of coverage tables with a year to date formula to measure and report project; **Francis Olok¹, Joel Fred Nsumba¹ | ¹Amref Health Africa, Uganda**

Issues: Many projects fail to meet expectations because of challenges of timely measuring success. There is consensus that determining the success of a project is a complex task in the face of rising demand for balanced program accountability (outputs and financial) among stakeholders. A coverage table is process and output monitoring tool mounted with a dashboard to timely monitor and report performance, constructed based on work plans, laid in a simple excel spreadsheet in arrays of objectives, outcome, activities, indicators, targets and achievements. In most organizations periodic performance measurement of achievements is mandatory. However, the senior managers have been unable to link the year to date (YTD) financial expenditure to YTD output performance thus making decision making difficult, as the relation between these two variables was complex, varied, misunderstood and erroneously applied.

Description: Coverage tables that harmonize work planning & reporting on planned activities, outputs and achievement of targets was developed and deployed. Linkage to financial expenditure based on activity budgets was developed within the coverage tables with support from finance departments using their experience in use of critical variables of YTD financial performance. A pretest was done in Uganda to domesticate the tables and the findings used to develop a consistent formula that links YTD activity implementation to financial performance.

Lessons Learnt: Using coverage tables, projects have been able to standardized reporting allowing comparison of performance within country and across country contexts based on critical variables; YTD targets, achievement of targets and extrema positive variances against time

Recommendations: The Coverage Table approach lays a firm ground for effective, efficient M&E system that is relatively easy to be automate. Laying strong ground for outcome and impact monitoring. The Adjusted YTD FAO formula will resolve problem of programmatic performance measurement.



THABO19: Ensuring accountability at the last mile to delivery high quality care; **Jen Foth¹, Serah Malaba¹, Nayantara Watsa¹**
¹Living Goods, Kenya

Issues: Community health workers (CHWs) provide a critical link between the community and the facility that is key to achieving universal health coverage (UHC). Strong accountability systems are essential to the delivery of high-quality care at the community level by CHWs deployed to remote areas, who often lack extensive health knowledge. However, underinvestment in systems and tools to monitor and support CHW performance has led to a crisis of accountability at all levels. Building government capacity at all levels to generate and use high-quality data is critical to increasing accountability for community health service delivery, demonstrating impact and efficiency, and advocating for increased community health investment.

Description: At Living Goods, technology enables us to implement a best-in-class performance-management system for CHWs and supervisors. CHWs are equipped with a smartphone and app they use to register and track pregnancies, diagnose and treat childhood illnesses on site, and follow up. Supervisors have an app allowing them to plan and track CHWs to drive highest priority field supervision.

Lessons learned: The application of rigorous data quality controls and the use of data dashboards to inform supervision and performance-based incentives at all levels create a culture of transparency and accountability that drives performance. In Kenya, this has resulted in an increase of active CHWs supervised from 29% to 88%, and an increase in the number of visits per supervisor per month from around 8 to nearly 14.

Recommendations: These tools can be leveraged for results-based financing (RBF) allowing donors and governments to purchase health outcomes rather than inputs, driving greater accountability. Results from the first two quarters of implementation of a one-year RBF pilot for community health in Uganda will be available and presented at the time of the conference.



THABO20: Developing a comprehensive framework to help accountability interventions accelerate progress towards UHC;
ACS Team members | Results for Development, USA

Background: There is an increasing interest in exploring accountability in UHC processes, both among countries and at the global level. So far, much of the focus on accountability has been on monitoring the use of financial resources through a value-for-money rationale, but less has been developed to date on the vertical dimension of accountability that cuts across the “in country” UHC actors (non-state, private, multi-sectoral). Little attention has been put on “social” accountability or political challenges to accountability. As part its support in launching an accountability collaborative and regional learning agenda, ACS is developing a framework to better understand the systemic linkages between accountability and health system performance improvement, which will then be tested with several concrete country interventions to refine for broader use. One obvious entry point is citizen engagement.

Method: An analytical framework was developed and applied to the Essential Medicine Access Network (RAME) experience in Burkina Faso-implemented, in all the 13 regions in the country and 15 health districts, a citizen compliance reporting system to enhance people’s access to the health services they’re entitled to. This system had three parts; citizen watch as a means to control the quality of healthcare, advocacy towards the community health system decision-makers, and capacity building of the health services users. ACS analyzed RAME’s experience, focusing on (i) citizen watch activities, (ii) alternative suggestions (iii) social mobilization and (iv)advocacy (interpellation and pressure). We conducted 53 individual interviews that reached 7 profiles of stakeholders: providers, health district managers, health programs managers, NGOs, donors, policymakers, and RAME staff.

Results: The methods and findings of the RAME experience documentation are being used in the ACS Accountability Collaborative to collectively refine the accountability framework and questionnaire for use in additional countries. We will share this knowledge



THABO21: Health workforce data monitoring, ensuring accountability through implementation of National Health Workforce Accounts; **Khassoum Diallo¹, Teena Kunjumen¹, Aurora Saares¹, Mathieu Boniol¹ | ¹World Health Organization, Switzerland**

Issues: To tackle health workforce challenges, WHO Member states engaged unanimously adopted the Global Strategy for Human Resources for Health, and the Working for Health plan of Action, which include a set of milestones for 2020 and 2030 with clear deliverables by countries and international organizations. Monitoring those milestones will be done through the implementation of National Health Workforce Accounts (NHWA).

Description: Following an international consultation with experts on HRH, the WHO developed NHWA as a system to improve availability, quality, and use of data on health workforce through monitoring of a set of indicators. The NHWA implementation is supported by the development of a series of global public goods that helps monitoring, use and reporting of their health workforce data. In particular, an implementation guide was developed to trigger country level activities with multiple stakeholders and ensuring sustainability of the approach. An online data platform was also designed for the countries with built-in visualization tools, quality assurance and validation process.

Lessons learnt: Through a series of capacity building and country support, WHO identified challenges faced by countries with some more specific for Africa where four capacity building events have been conducted so far. The major challenges in Africa include governance, scattered information, data flow or lack of sustainability of HRH information systems.

Recommendations: Countries have been enabled to comply with engagements done at the World Health Assembly. Progressive implementation of NHWA in Africa will provide the basis to better monitor health workforce data in Africa.



Background

In resource-constrained settings, transparency interventions such as the use of Citizen Report Cards (CRC), have emerged to improve the performance of health care delivery. Yet, there is little documentation on CRC on health service delivery in developing countries. In Rwanda, the Rwanda Governance Board (RGB) publishes annually a CRC to assess the levels of community satisfaction with regard to different services delivery in terms of their availability, access, quality and reliability. The aim of this study is to highlight the challenges and the current level of satisfaction on health services delivery in Rwanda using CRC.

Methods

A systematic literature review of articles and reports published was done. The searching words were effectiveness of citizen report cards on health services delivery, in Rwanda, Eastern Africa, in Africa and globally. A total of five annual reports by RGB since 2013 to 2016, 2 articles published in PLOS were selected.

Results

Results show a low number of drugs not updated yearly on the list is paid by the Community Health Insurance, shortage in the number of health professionals working at the Health centers and Health posts with inadequate capacity building, less health infrastructures (e.g hospitals, labs etc..) and transportation (e.g. ambulance), increase in malaria cases were the main challenges identified by CRCs. An increase from 64.1% in 2013 with 6.4% dissatisfaction, to 77.4% in 2014 with 17.4% dissatisfaction, to 77% in 2015 with, then a drop of 74.9% in 2016 with a 21.8% dissatisfaction were the level of net satisfaction of citizens towards health services delivery respectively.

Conclusion and recommendations: Citizen report cards are public potential accountability tools because they identify patient challenges and level of satisfaction in regards to health services delivery. CRC use should increase citizen engagement, health workers accountability and health policy makers to improve health systems performance is highly recommended.

Keywords: Citizen Report cards, accountability, Rwanda



Lightning Oral Presentations

THABLOO1: Investing in local artisans training; a low cost approach to reducing open defecation. A case of Amuru district;
Hajra Mukasa | Amref Health Africa, Uganda

Background: In Amuru district, about 90% of the disease burden is sanitation related but up to 77% of some communities still defecate in the open. The government of Uganda promotes sanitation improvement using Community Led Total Sanitation and Home Improvement Campaigns. These approaches do not provide options technology options for people to choose from. As such, communities have continued to build traditional latrines that do not last for more than a year thus going back to open defecation. To address this challenge, Amref Health Africa trained local artisans to construct low cost appropriate sanitation technologies for households and provide contextual sanitation solutions.

Description: Five local artisans are identified by a targeted community and trained by the Project Engineer. The households in the targeted communities contribute materials needed for the construction of latrines. During the training and joint construction, the project engineer demonstrates to artisans the latrine construction procedures. This training is repeated in 5 different households with the same artisans. By the 5th household, the artisan has mastered the art and can now continue to construct the low cost appropriate latrine without the supervision of the engineer. The engineer then moves on to the next community to start another phase of training while the artisans continue constructing improved latrines in the community. Since the beginning of the year, 10 communities and approximately 280 households have been mobilized. Consequently, 199 Low cost latrines have so far been constructed and 4 other artisans have been trained by the trained artisans.

Results: Latrine coverage improved from 23% to 68% in targeted communities. Hand washing coverage has increased from 24% to 63% in targeted communities. 4 artisans trained by peer artisans.

Conclusion: Investing in the training of local artisans will not only provide a one stop center for sanitation solutions but also results into sustainable sanitation and hygiene promotion.



THABLOO2: The Impact of mentorship on BEmONC and CEmONC among health workers in Samburu County Kenya.

Jarim Omogi¹, Jackline Kiarie¹, Fredrick Majiwa¹, Diana Mukami¹ | ¹Amref Health Africa, Kenya

While inadequate number of trained health workers is low in Samburu there is also a gap in implementation of effective strategies to build their skills, knowledge and the systems needed to ensure quality of care delivery. Mentorship remains a cornerstone in improving the knowledge and skills of health workers in resource limited areas. Studies show that three-quarters of neonatal deaths are attributable to infections, preterm birth, and intrapartum complications. These top causes of both new-born and maternal mortality are all largely preventable through the effective use of highly cost-effective interventions in Emergency Obstetric and New-born Care (EmONC).

The aim of the study was to assess the impact of Emergency Obstetric Newborn Care mentorship on health workers in Samburu County Kenya.

Methods: A combined method of retrospective and prospective design was used with both quantitative and qualitative data utilized to collect data from a total of 34 facilities and over 60 health providers. The data was collected using the WHO standardized questionnaire for EmONC/CEmONC assessment. Mentors identified competency gaps on BEmONC signal functions and provided on site mentorship and coaching.

Results: Unlike before the mentorship, there was increase and improvement in the use of guidelines and job aids as references. There was also increased signal function performance notably administering parenteral antibiotics, treatment of Post-Partum Hemorrhage (PPH) and parental treatment of severe pre- eclampsia

Conclusions: Incorporating mentorship activities into BEmONC and CEmONC services was associated with improvements in use of guidelines, job aids and signal functions. Mentorship is key in strengthening human resources for health, hence improving capacity for delivering quality health services

Recommendations: More mentorship activities are needed to improve overall utilization of skills on other signal functions of EmONC.



THABLOO3: Practices of basic hygiene and sanitation standards in maternity wards by health workers and patients in hard to reach areas: A case of Amuru District; **Margaret Mugisa | Amref Health Africa, Uganda**

Background: Hygiene and sanitation practices are fundamental for provision of quality health care; reduces infections; increases trust and uptake of health services, decreases cost of service delivery and improves staff morale. Health facilities are provided with primary health care funds and commodities for hygiene and sanitation management. Despite the availability of hygiene and sanitation facilities and commodities, health workers and patients have not observed hygiene and sanitation practices as required. Most mothers deliver babies under unsafe and unclean environment. This study is to assess why they do not implement and observe appropriate hygiene and sanitation Practices.

Methods: The study was conducted in six maternity units, 12 health workers, 28 qualitative participants' and 469 households 'survey respondents were interviewed in Amuru district. The study design comprised of both qualitative and quantitative study methodologies. The health WASH checklist was used to assess practices and SPSS package used to analyze data.

Results: Only 41.7% of the health facilities fulfilled the basic hygiene standards. Four in six maternity units (66.7%) provided soap for hand washing; 16.7% bathing facilities for patients, 66.7% had instructions for mothers to bathe prior to birth; 33.3% of health facilities counseled mothers on proper cord care. 37.5% of the health workers exercised hand washing practices and 33.3 % had sufficient toilet facilities. The poor performance was attributed to lack of running water, failure to disinfect water for medical use; dirty and insufficient latrines; inadequate supply of detergent. Consequently 23.3% of mothers delivered in safe and clean environment and 76.7% refrained from accessing health services.

Conclusion and Recommendations

Practice of hygiene and sanitation standards in maternity units by health workers and patients in Amuru is very low. Health Managers need to accelerate efforts to improve hygiene and sanitation practices in their maternities for effective delivery of quality health services.



THABLOO4: Finance for Health Workers: how can we close the gap? The case of Malawi, Uganda, and Tanzania; **Mariska Meurs¹, Myria Koutsoumpa¹, Renée de Jong¹ | ¹Wemos, The Netherlands**

Issues: Shortage of human resources for health (HRH) leads to reduced access to healthcare, to health inequities and negatively impacts on population health (track 2.2). The World Health Organization (WHO) calculated the minimum density of skilled health personnel to be 4.45 health workers per 1000 population, in order to achieve Universal Health Coverage (UHC) and the health-related Sustainable Development Goals (SDGs). However, many countries have insufficient domestic resources to reach this threshold and contributions from development partners to workers' salaries via development assistance for health (DAH) are limited.

Description: Wemos and partners in the Health Systems Advocacy Partnership (HSAP) investigated the issue in Malawi, Uganda and Tanzania, combining extensive literature reviews, country visits, and stakeholder interviews.

Lessons learnt: WHO health workforce targets and, by extension, UHC and SDGs, can only be reached if spending from both domestic and external resources in the investigated countries is scaled up. All three countries are still way below the WHO threshold (Malawi 0.5, Uganda 0.74 and Tanzania 0.44 health workers per 1000 population), and have limited fiscal space for health to expand the number of health workers. General government health expenditure falls short of the required minimum for basic primary health care and to recruit and retain sufficient health personnel. Few donors provide bridge funding for health worker salaries, using different mechanisms.

Next steps: Wemos and partners will continue evidence-based advocacy to promote that governments increase their ambitions and efforts to mobilize domestic resources for health, including through tax reforms and promoting international tax justice and improve efficiency and effectiveness of spending. DAH complies with Aid Effectiveness principles, and is available for health worker salaries, applying lessons learnt from existing bridge funding initiatives.

Keywords: Health workers; Health Financing; East African Region; UHC;



THABLOO5: Orienting health care workers on quality improvement to promote facility self-assessment and accountability
Christina Godfrey¹, Adeline Saguti¹ | ¹The Benjamin William Mkapa Foundation, Tanzania

Issues: Sustained quality assurance practices in work places are critical to improved quality of service. A baseline assessment on Emergency Obstetric and Newborn Care (EmONC) signal functions conducted by the Benjamin William Mkapa Foundation in 2014-2015 to 19 health facilities in 12 districts found that there were: no quality improvement (QI) teams at the facilities as required, lack of Planned Health Education given to clients and Infection Prevention Control (IPC) Protocols not enforced.

Description: Two assessment and orientation visits were conducted in each of the 19 health facilities in 12 districts in four regions namely Kagera, Shinyanga Rukwa and Simiyu. The visits aimed at improving management of EmONC signal functions. The Standard Based Management and Recognition (SBMR) tool was used which as adapted from the Ministry of Health and customized with the focus on assessing availability and functionality of QI teams, Infection prevention and control standards and facility health education programs. Through the intervention; 16 out of 19 (84%) facilities have QI teams in place with regular meetings schedules and documentations (filed Minutes of the meetings, tracking of results/indicators) 11 out of 19 (58%) of the facilities provide education to clients with clear timetable and lesson plans/summary for the topics taught. As a result, none of the facilities had maternal or neonatal deaths during the period.

Lessons learnt: Enabling continuous work related learning environment particularly in rural underserved areas contributes significantly to Health Workers' motivation, performance and ultimately improve delivery of services particularly in EmONC.

Next Steps: The regular conducted supportive supervision to the facilities should focus on creating a sustainable work learning environment and systems, for sustained improvement on service delivery and health workers motivation to deliver instead of one time problem solving/audit focused supervision.



THABLO06: Using community health workers and family members to promote adherence to post-obstetric fistula repair instructions in Northern and West Nile Regions of Uganda; **Margaret Mugisa¹, Joel Nsumba¹, Patrick Kagurusi¹, Patrick Oryema², Tonny Kapsandui¹ | ¹Amref Health Africa, Uganda, ²Uganda Matryres University, Uganda**

Issue: In Uganda 75,000 women sustain fistula and 1,900 new cases occur every year. A fistula is a hole in the birth canal and a rectum mainly caused by prolonged obstructed labour. The Northern and West Nile regions have had cases of fistula unattended too due to high costs of repair; inadequate specialists and unsupportive families. Recurrence of the fistula is due to infections, complexity of the fistula and failure to use post-repair instructions. Amref supported five hospitals to provide clinical care and promoted client adherence to postobstetric fistula repair instructions by using community health workers (CHWs) with support from the family members in Northern and West Nile regions.

Description

Amref facilitated specialist fistula surgeons to conduct routine repairs using a camp approach in non-specialized health facilities. To identify and follow up cases of fistula in the community 870 CHWs were oriented in community case finding, follow-ups and were deployed in 4 districts of West Nile and Northern regions. Between May 2014 to May 2016, 631 (94.6%) women were mobilized and referred for screening by CHWs. 357 cases were repaired, of which 326 (91.3%) of the cases received complete care at the first repair while 31 (9.5%) experienced recurrence at discharge. The success rate was attributed to adherence of post-repair instructions, constant counseling and monitoring of the patients on a bi-weekly follow ups for three months after discharge by CHWs and family members.

Lesson learnt

Collective effort by the CHWs, family and health workers enhances adherence to post-repair instructions by clients.



THABLOO7: Does improving facility-community linkage help in finding cases in the community? Documenting efforts in areas with low case notification; **Christine Mwamsidu¹, Faith Ngari², Benson Ulo¹, Titus Kiptai¹, Anne Munene¹, James Sekento³ | ¹Amref Health Africa in Kenya, ²NASCOP, Kenya, ³National Tuberculosis and Lung Disease Program, Kenya**

Background and challenges: Strong coalition with Civil Society Organizations (CSOs) and communities is one of the overarching principles towards ending tuberculosis. Amref Health Africa in Kenya implemented community TB through 29 CSOs in the Global Fund New Funding Model project covering 33 counties. According to the Strategic Plan 2015 – 2018, 16 out of the 47 counties reported case notification of below 175 per 100,000 populations based on 2012 data. Role of Community Health Volunteers (CHVs) and CSOs in the project was to improve case finding through referrals. The challenge was ensuring referrals from the community get to the health facility.

Intervention or response: Project was implemented between April to December 2016. 80 facilities were identified among 856 that reported in 2014 in 16 counties. Activities including community screening and referrals, outreaches and support of 10 laboratory technologists were implemented. To ensure clients referred reached the health facility, 80 lead CHVs were stationed in the facilities to receive and guide clients. CHVs received 50 USD monthly.

Results and lessons learnt: CHVs documented 4,024 referrals from the community in the 80 facilities. Cases notified from the community were 4409 and 4828 in 2015 and 2016 respectively showing 10% increase compared to 76% (1031 to 1814) increase among 16 counties. There was 31% increase among the remaining 17 counties where the project was implementing and a decrease of 50% in the 14 counties where there was no implementation. 80 targeted facilities reported an increase of 145% compared to the rest of the facilities in the 16 counties which reported an increase of 45%. Optimal use of community strategy will improve case finding. Targeted activities should be scaled up to reduce disparities between counties in terms of case detection.

Conclusions: Ministry of Health should continue to empower CHVs to improve facility Community linkages.



THABLO08: Research dissemination strategies used by Kenya Medical Research Institute Scientists; **James Ngumo Kariuki | Kenya Medical Research Institute, Kenya**

Introduction: Dissemination and implementation of research findings is acknowledged as an important component of any research process. Context and dynamic environment in which researchers operate, there is need to find out existing gaps. The objective was to investigate the health research dissemination strategies used at Kenya Medial Research Institute (KEMRI) researchers.

Methodology: A mixed-method study employing concurrent sequence (use of both qualitative and quantitative) methods of data collection. The study was conducted in KEMRI. Potential respondents were purposive sampling. Three interrelated data collection methods were employed in this study. Review of secondary sources of information including KEMRI annual reports and financial statements.

Results: Publication of papers in peer-reviewed journals was mentioned as the most common method of dissemination of research findings. Scientists published in 353 peer reviewed journals between 2002 and 2015. Over 92.7% of publications were in international peer reviewed journals. Conferences and workshops were also mentioned. In the absence of a centralized electronic KEMRI publication database, the research team extracted and collated a publication lists from KEMRI annual reports and financial statements. This was limiting since it did not have an exhaustively list of all publications by KEMRI scientists. Three respondents mentioned having written policy briefs or engaged the media as part of dissemination channels. The media representatives cited use of social media (facebook and twitter) as other channels that KEMRI scientists could take advantage of. Challenges in dissemination included lack of knowledge on research translation leading to poor synthesis of research outputs as well as selective reporting by the media.

Conclusion: Publications in peer-reviewed journals was the most preferred channel of communicating scientific outputs. Conferences and writing of policy briefs were the other sources of dissemination. Recommend that KEMRI dissemination channels should diversify the channels include use of social and electronic media.



THABLOO9: Resolving health worker strikes in Kenya through leadership, management, and governance for Human Resources for Health interventions to accelerate access and quality of health services; **Matthew Thuku¹, Annette Murunga², Janet Muriuki¹ | ¹IntraHealth International, Kenya, ²Strathmore Business School, Kenya**

Issue: Grievances over terms and conditions of service led to strikes among doctors, nurses, clinical officers and other non-unionized health workers (HWs) in Kenya between December 2016–November 2017. Over 300 workdays of dysfunctional health system were experienced, with far-reaching impact on access and quality of essential services. The strikes caused 28–56% decreases in fourth ANC visits; 17%–45% decreases in pregnant women starting ART; 33–54% decreases in viral load testing, 37% and 55% reductions in short and longacting family planning method uptake, respectively, and 22% reduction in facility deliveries. IntraHealth, through USAID funding, undertook Leadership, Management, and Governance (LMG) interventions amongst 184 health sector trade-union leaders to build their capacity on negotiation and non-disruptive grievance handling towards harmonious employer–employee relations to increase access and quality of health-services.

Description: The interventions comprised combined human resources for health (HRH) and LMG training, mentorship, consultative engagement, regular dialogue forums and advocacy for increase in HR managers at county level supporting HWs. The Challenge Model utilized offers a systematic approach for working as a team to identify challenges and apply LMG principles to tackle problems and determine amicable solutions to achieve results. The training incorporated HRH and industrial relations principles in line with International Labour Organization conventions that advocate for protection of employee, employer and patients' rights.

Lessons Learned: The interventions resulted in setting up participatory county work councils (a dialogue platform) between union and health leaders as well as inclusion of union leaders in HRH stakeholder forums to provide solutions to HWs management challenges and grievance handling, thus creating an enabling work environment and mitigating strikes (2018 has been strike-free).

Next steps: Scale-up LMG4HRH interventions to prevent HW strikes and advocate for adoption of models by unions that prevent disruption of health services



THABLO10: Contribution of team emphasis on employee performance in non-governmental organisations; **Bigirwa Patrick¹, Disan Mugumya² | ¹Amref Health Africa, Uganda, ²Ndejje University, Uganda**

Background: This study is aligned to track 2.2: Strengthening human resources for health, and health leadership management and governance, to improve capacity for delivering quality health services. The purpose of the study was to examine the influence of team emphasis on employee performance in a non-governmental organisation setting, with an aim of mitigating the low staff performance. Employee performance was inadequate, despite the immense efforts the organisation had put in place: recruiting high calibre staff, remunerating staff well, supervising and appraising staff, and timely payment of staff salaries by every 25th day of the month. Team emphasis was assumed to be one of the possible cause of these anomalies, hence the need for this study.

Methods: A cross sectional survey design was employed and focused on Amref employees in Uganda, a structured questionnaire was administered to 90 employees, together with in-depth interviews targeting key staff, regression and correlation analysis were performed together with thematic analysis for qualitative data.

Results: Majority (47.7%) of respondents were 30-39 years hence a young working force. A positive relationship between team emphasis and employee performance ($r=0.962$ & $p=0.009$) was revealed. Majority (60%) of respondents believed that team emphasis was a valued practice at Amref, however, some teams were not functioning optimally as expected, inadequate sharing of ideas, leadership and inadequate information flow affects team effectiveness.

Conclusions and Recommendations: Team emphasis was found to be a valued practice, however, team leadership, inadequate information flow and sharing of ideas affected team effectiveness. Management needs to design strategies to enable old staff play their role of becoming good initiators of new staff to the organisation.

Key Words: Team emphasis, Employee performance, NGOs



THABLO11: District-level health management and health system performance: Two-year longitudinal evaluation of the primary healthcare transformation initiative; **Lingrui Liu¹, Netsanet Fetene², Mayur Desai¹, Temsgen Ayehu³, Kidest Nadew², Erika Linnander¹ | ¹Yale Global Health Leadership Initiative, United States of America, ²Yale Global Health Leadership Initiative, Addis Ababa, Ethiopia, ³Federal Ministry of Health, Addis Ababa, Ethiopia**

Background: Despite a wide range of interventions to improve district management capacity low-income settings; evidence of the impact of these investments on management practice and primary healthcare systems performance is limited. To explore this gap, we conducted a longitudinal study of the 36 rural districts, including 229 health centers, participating in the Primary Healthcare Transformation Initiative (PTI) in Ethiopia.

Methods: We employed quantitative measures of management capacity at the district and health center levels and a key performance indicator (KPI) summary score based on antenatal care coverage, contraception use, skilled birth attendance, infant immunization, and availability of essential medications. We used multiple regression models, accounting for clustering of health centers within districts, to estimate (1) changes in management practices, (2) changes in health systems performance, and (3) the association between change in management capacity and change in systems performance over a two-year period.

Results: Adjusting for the woreda-level fixed effects with clustered standard errors, we find significant improvement in district management ($p < 0.01$) and health center management ($p < 0.01$), as well as significant improvements in KPI score among all health facilities ($p < 0.05$) over 2 years. Further, improvements in management practices at the district level were strongly associated with improvements in KPI summary scores ($p < 0.001$), as were improvements in management practice at the health center level ($p < 0.001$). The rate of change was greater when districts were exposed to year-long intensive mentorship and educational support, as compared with districts exposed to “light touch” guidance on implementation of national reforms.

Conclusions and Recommendations: District management can be improved in meaningful ways over a relatively short period of time, and improvements in management are associated with improvements in health systems performance, highlighting district management as a key lever for improving health system performance in low-income country settings.

Keywords: primary health care, district management, Ethiopia



THABLO12: Evaluation on the retention of knowledge, confidence and skills after a three-week specialized newborn care (SNC) training in Malawi; **Stephanie de Young¹, Vincent Magombo², Shiprah Kuria³, Laura Lewis-Watts¹, Madalitso Tolani², Britt Mckinnon¹** | ¹Hospital for Sick Children, Malawi, ²Amref Health Africa, Malawi, ³Amref Health Africa

Background: Strong health systems require a competent health workforce. In 2017 collaborators from Amref Health Africa and Hospital for Sick Children (Canada) conducted training on Specialized Newborn Care (SNC) to enhance the knowledge, skills and leadership abilities for three cohorts of health workers in 4 under-served districts of Malawi. Though many trainings occur evaluation of training is limited. In 2018 an outcome evaluation of the SNC training in Malawi was conducted to 1) assess the impact of the training on knowledge and still retention, 2) identify factors that influence retention and 3) develop recommendations for future training.

Methods: The evaluation used a mixed-methods approach to follow-up with 26 health workers (nurses, midwives, clinical officers) from 4 districts in Malawi using Objective Structured Clinical Examinations and a knowledge and confidence test. Three data points were captured (pre, post and 6-14 months after training). The evaluation also included a written survey, focus group discussions and key informant interviews. While the small sample size has implications for generalizability and statistical significance, results contribute to an increased understanding of barriers and facilitators for post-training knowledge retention within the Malawi context.

Results: Increase in knowledge, confidence and skills was sustained when comparing preand-post-training results with the results at 6-14 months. Factors that contribute to knowledge retention include participant-led communities of practice (CoPs) via WhatsApp and increased confidence as a result of training that is interactive and skills focused. Participants identified several challenges in their work environment including lack of ongoing mentorship and availability of equipment as barriers to knowledge retention and implementing new skills in their clinical practice.

Conclusions/Recommendations: Consideration of mentorship in future design of trainings, incorporating CoPs and strengthening consultation on equipment needs may help enhance professional development/training of health workers for the delivery of quality care to newborns and their families.



THABLO13: Strengthening capacity of front-line health workers for effective management and control of NCDs; **Sarah Kosgei¹, Bryson Sifuma¹, Sarah Jeffreys¹, Colleta Kiilu¹ | ¹Amref Health Africa**

Background: Non-communicable diseases (NCDs) are by far the leading cause of death in the world, representing 63% of all annual deaths. In Kenya it accounts for 27% mortality and over 50% hospitalization. The prevalence of type 2 diabetes in Kenya is estimated at 4.2% and childhood asthma at 10%. The high proportion of undiagnosed cases NCDs contributes to irreversible health complications, imposing a huge economic burden on the individual, family, community and health system. This is compounded by the limited skills and knowledge by health workers to effectively diagnose and manage NCDs. Amref implemented a three years, **NCDs project Kenya**. The end term evaluation sought to assess outcomes of the project. The project was aimed at enhancing the capacity of the health workers for quality management of NCDs, strengthening community-based disease surveillance, and generate evidence for policy and practice change.

Methods: End term evaluation using a mixed design approach. The study was conducted in in four counties in Kenya. Multi-stage sampling approach in selecting households was adopted. Interviewed 720 households, 476 community volunteers, 205 health workers and 225 clients. Quantitative data was analyzed by descriptive statistics and bivariate analysis techniques using SPSS V.20 and qualitative data analyzed using NVivo 11.

Results: Training alone creates a ripple effect to improved quality services. With over 4.2 million People reached by 2613 health workers trained. Improved knowledge and skills to manage NCDs from 39.9% to 95.6% at the end of the project, reduced hospitalization due to asthma attacks or elevated sugar and facilities with Diabetes & Asthma equipment and commodities increased from 48% to 74%.

Conclusions and Recommendations: There is need to strengthen diagnostic and reporting tools for NCDs in order to generate evidence for decision making, scale up community sensitization and strengthen supply chain to ensure supply meets the demand.

Keywords: NCDs, Diabetes, Asthma, health workers, training, Kenya



THABLO14: Strengthening capacity of health care workers to provide services to mobile and key populations at border areas; **Dorothy Muroki¹, Boniface Kitungulu¹, Leanne Kamau¹ | ¹FHI 360, Kenya**

Issues: Health systems in the region train health care workers (HCWs) to provide services to national and resident populations. However, when they are posted to health facilities at border areas, they are not equipped to serve the increasingly mobile and cross-border populations that include key and priority populations. In cases where clients do not self-identify as non-nationals, HCWs may therefore omit critical health seeking behaviors which could be informed by their local contexts and factors that may contribute to transmission of diseases across borders.

Description: The Cross-Border Health Integrated Partnership Project (CB-HIPP) with funding from USAID in collaboration with ministries of health trained 100 health care workers drawn from 44 border facilities in the Eastern Africa region to provide integrated health services to mobile and cross-border populations. An additional 925 HCWs and cross border peer educators were trained on migration health including refresher training on other health issues including family planning, maternal, newborn and child health, TB and HIV in a cross-border context. This followed an assessment conducted by the project which revealed HCWs lacked skills to provide services to these populations.

Lessons Learnt: Health care providers at border areas largely serve the same pool of clients on either side of the border. It is therefore important to have common understanding of health issues at border areas through joint training. For instance, through collaboration with county and district health management teams in Kenya and Uganda, CB-HIPP held joint training for 50 health care workers in Busia County (Kenya) and Busia and Tororo districts in Uganda.

Recommendation: The EAC region should develop joint curricula for health service providers or adapt from existing national curricula to include migrant-sensitivity. The curricula should be used to conduct joint training of health care providers at border areas to ensure common understanding of cross-border health challenges.



THABLO15: Beyond repair – A holistic approach of improved access, provision of quality care and social re-integration for fistula patients; Frida Ngalesoni | **Amref Health Africa, Tanzania**

Issues: Obstetric fistula is a devastating birth injury that affects 3000 Tanzania women annually. This preventable condition is prevalent in impoverished communities where childhood undernutrition and early marriage is common, and in communities with limited access to facilities with capabilities for caesarian sections. The condition women physically, psychologically and socioeconomically however most interventions are based provision of surgical repair without considering the broader goal of successful reintegration into the community.

Description: Between 2014 and 2017, Amref implemented the Safe Motherhood and Fistula Services project – a holistic approach to fistula care which included demand-side interventions to increase awareness about fistula; financial support to patients for transport and treatment services; capacity strengthening of hospitals to quality care; and social reintegration of post repair fistula survivors in the Lake zone.

Lessons learnt: Access to fistula repair was facilitated through increase in knowledge awareness through 1,640 and 44 IEC materials and media advertisements respectively and provision of USD 394,200 to 1,314 patients as financial support for transport and treatment services. Hospitals were capacitated to provide better fistula surgical care resulting in 71% and 57% having required guidelines and tools and basic infrastructure of fistula care respectively. A total of 1,620 patients received repair services against a target of 600 patients with clinical outcome estimated at 93%. Post-repair psychological counselling and reintegration services was provided to 59% fistula survivors through a local CSO. Major challenges included 34% gap in trained healthcare personnel, lack of data to facilitate patient tracing and lack of financial resources to conduct multiple cycles required for psychological counselling.

Next step: Holistic fistula repair should be decentralized to district hospitals where need is the highest, furthermore services readiness assessment should be integrated into the current quality improvement tools instituted by the Star Rating Initiative of the Ministry of Health.



THABLO16: Armed conflict and maternal health care access: Evidence from the Boko Haram Insurgency in Nigeria; **Adanna Chukwuma¹, Uche Ekhaton¹ | ¹World Bank Group, USA**

Background: Increasing coverage of skilled maternal care is essential to decreasing preventable maternal mortality. Armed conflicts such as the Boko Haram Insurgency (BHI), by introducing barriers to health service access, may contribute to the high maternal mortality rates in Nigeria. However, studies that assess the impact of conflict on maternal health care in African countries are sparse and report mixed findings. Hence, in this study, we examine the impact of the BHI on maternal care access in Nigeria. This study is aligned with track 1.1: "Addressing cultural, social and age barriers to accessing health services in Africa."

Methods: We spatially matched 52675 birth records from the Nigeria Demographic and Health Survey (NDHS) with attack locations in the Armed Conflict Location and Event Dataset (ACLED). We defined BH conflict area as NDHS clusters with at least five attacks within 3000, 5000 and 10000 meters of BH activity during the study period and used difference-in-differences methods to examine the effect of the BHI on antenatal care visits, delivery at the health center and delivery by a skilled professional.

Results: BHI reduced the probability of any antenatal care visits by 6.3 to 11.1 percentage points, the probability of at least four antenatal care visits by 14.6 to 22.4 percentage points, the probability of delivery at a health center by 8.5 to 11.2 percentage points and the probability of delivery by a skilled health professional by 8.0 to 11.1 percentage points. The effects of the BHI on maternal health care access were greater for areas closer to BH activity.

Conclusions and Recommendations: The BHI constrains the use of health care during pregnancy in Nigeria. Systematic efforts to identify and address the mechanisms underlying reductions in health care use due to the BHI are essential to improving maternal health in Nigeria.



THABLO17: Predictors of morbidity and mortality from neonatal sepsis at Kericho County Referral Hospital, Kenya: 2011-2015
HIS Data Analysis; **Gideon Mutai | AIC Litein Hospital, Kenya**

Globally, morbidity and mortality due to Neonatal Sepsis is considerable and varies by setting owing to disparity in determinants (The Lancet, 2017). In Kenya, Neonatal Mortality Rate is 22/1000 live births (KDHS, 2014). Predictors being setting specific, this study was set at Kericho County Referral Hospital, Kenya. The objectives were (i) To determine the predictors of morbidity from Neonatal Sepsis at Kericho County Referral Hospital (ii) To investigate the predictors of mortality from Neonatal Sepsis at Kericho County Referral Hospital.

A sample neonatal data from 2011-2015 was extracted using a pre-designed capture tool. Neonates were either born at the hospital or admitted after delivery elsewhere. Relevant files were identified; those meeting specific inclusion criteria underwent sampling, stratified according to years, months and stratum size. Within strata, the files were selected using systematic random sampling, the first being picked using simple random sampling. The sample size was 422 files computed using Cochrane (1963) formula. Binary Logistic Regression analysis and chi-square test were performed using SPSS (SPSS Inc. 2016) version 23.0. Morbidity predictors included sex (OR=1.73; 95% CI: 1.28-2.31; p=0.023), prematurity (OR=1.67; 95% CI: 1.18-2.02; p=0.000), place of delivery (OR=6.18; 95% CI: 4.47-9.88; p=0.001) and mode of delivery (OR=3.05; 95% CI: 2.33-3.74; p=0.002). Mortality predictors corresponded closely with morbidity ones: sex (OR=1.91; 95% CI: 1.40-2.45; p=0.022), prematurity (OR=3.58; **95% CI: 3.30-3.99**; p=0.001), place of delivery (OR: 2.11; 95% CI: 1.64-2.59; p=0.003) and mode of delivery (OR: 3.33; 95% CI: 2.77-3.88; p=0.026). Age at admission (days), number of days (birth to diagnosis), duration of hospital stay (days), parentage, resuscitation status and premature rupture of membranes were either moderate or non-predictors of either outcome.

In conclusion, neonatal sepsis morbidity and mortality are strongly influenced by some demographic, birth-related and clinical factors.

Key words: Neonatal Sepsis, Predictors, Morbidity, Mortality, HIS, Kericho.



THABLO18: Improving access and utilization of health care services and well-being in Samburu County, **Halima Dahir Ali | Amref Health Africa, Kenya**

Back ground: Samburu County has one of the worst indicators with Maternal mortality at 472 per 1000 live births, Neonatal mortality of 11 per 1000 live births, infant mortality at 34 per 1000 live births, under five 50:1000 live births, immunization coverage at 57%, at least 4th ANC attendance at 52 %, teenage pregnancies at 26% and skilled delivery is 29%. Samburu is a conflict-prone, underdeveloped and marginalized county with a poverty index of 73%. Social and gender inequalities are rampant with retrogressive practices that affect the health well-being of the communities include (Afya Timiza formative assessment, 2017)

Objective: To increase access to essential service in Samburu County, AFYA TIMIZA project implements facility linked integrated outreach services to offer services to under five children, adolescent youth and women of reproductive age in hard to reach communities

Description: Facility linked integrated outreach initiative is implemented to reach the vulnerable, underserved communities in hard to reach areas with low-cost, high impact intervention. Samburu County is inhabited by nomadic pastoralist communities and the project provides logistic support and incentives to health facilities to ensure the outreaches to the communities within a radius of 20 kilometers of the facility catchment areas. Services Offered includes immunization, ANC, PMTCT, Nutrition, reproductive health services and minor treatment. Community mobilization for the services is conducted by CHVs three days prior to the outreaches. Services data is captured using the Ministry of Health reporting tools.

Results: Data analysis of the intervention has demonstrated a significant increase in access and utilization of the MCH and reproductive services

Conclusion: The integrated linked outreaches is an evidence-based low-cost, sustainable approach that increases access to high impact interventions services in hard to reach mobile communities.



THABLO19: Reducing neonatal mortality through integrated clinical mentorship and district-wide quality improvement in maternal and newborn health: The All Babies Count/Impinja Ntizigapfe Initiative; **Emily Tuyishime¹, Theodosie Umugirwa², Jean Pierre Ndagijimana², Janvier Uwamahoro¹, Clemence Divine Isabwe¹, Claudine Mukamurenze¹, Alphonse Nshimyiryo², Francois Biziyaremye², Catherine Kirk²** | ¹Ministry of Health, Rwanda, ²Partners in Health, Rwanda

Background: Annually, 3 million newborns die in the first month of life – most of these deaths can be prevented through universal coverage of quality healthcare. All Babies Count (ABC), an initiative of Partners In Health and the Rwanda Ministry of Health, is an evidence-based 18-month change acceleration process that provides equipment/supplies, training/mentoring, and district-wide Learning Collaboratives (LCs) to promote peer-to-peer learning and continuous quality improvement (QI) among inter-professional teams to reduce neonatal mortality.

Methods: Two ABC QI Advisors provide mentorship, training, and QI coaching through LCs at two hospitals and 14 health centers in Gisagara District. HMIS data were used to monitor antenatal (ANC), intrapartum, and inpatient neonatal care; process data were gathered from QI Advisor reports. Chi-squared and Wilcoxon ranksum tests measured performance differences between baseline (July-September 2017) and midline (July-September 2018) in Gisagara (intervention site) and a matched-control site (Muhanga).

Results: 268 mentorship/QI coaching visits were conducted, 67 healthcare workers trained in maternal/neonatal care, and 21 QI projects testing 35 change ideas were implemented through LCs in Gisagara from October 2017-September 2018. Median ANC utilization increased by 50 women [interquartile range/IQR: 32-71] for facilities in Gisagara and only 19 [IQR: 8-32] in Muhanga ($p<0.001$). Proportion of facility-based deliveries remained high in both sites; 95.7% and 96.0% ($p=0.696$) in Gisagara but a small but significant decline was recorded in Muhanga (99.8% to 99.3%, $p=0.011$). In Gisagara, neonatal case-fatality declined significantly from 21.8% (31 deaths/142 admissions) to 6.6% (11/167, $p<0.001$), while in Muhanga it did not change significantly (8.4% (21/249) to 6.3% (19/301), $p=0.340$).

Conclusion: ABC has shown improvements in utilization and quality of health care services after nine months of implementation. ABC could be scaled nationally in Rwanda to eliminate presentable neonatal deaths and support improved quality of care and health outcomes on the road to universal health coverage.



THABLO20: Improving postnatal care (PNC) attendance at 6 weeks from 8% in October 2016 to 80% by June 2017 at Kihiki HC IV Kanungu district, Uganda; **Sekimpi Robert Harrison¹, Kesiime Dina², Nahurira Mercy², Kyampeire Annet², Tonny Kapsandui¹ | ¹Amref Health Africa, Uganda, ²Kanungu district, Uganda**

Background: Kihiki HC IV is a public Health Centre IV located in Kihiki council town council, Kanungu District in southwestern Uganda. It serves as a health sub district for Kinkizi West County, covering a population of 14,073 clients with 669 expected pregnant mothers. Its PNC attendance at 6 weeks was at 8% in October 2016, yet the ministry of health target is that PNC attendance at 6 weeks should be 100%.

Improvement goal: To improve PNC attendance at 6 weeks from 8% in October 2016 to 80% in June 2017

Methods: The work improvement team (WIT) started with review of the data on a monthly basis, completeness of PNC register, hold Health Sub-District (HSD) Continuous Medical Education (CME) on PNC, appointed a focal person for PNC, integrated PNC in Expanded program for immunization (EPI) outreach, and established package for Mothers at PNC.

Results: The percentage PNC started at 8% in October 2016, increased to 55% in November, 61% in December, increased to 96% in February, then stabilizing above 90 from March to June 2017.

Discussion: In October the WIT started a QI project on PNC, the team then attended a health sub district CME, they attained knowledge and skills on PNC, they then reviewed the PNC register data, improved on the documentation, appointed a focal person for PNC and also integrated PNC into the immunization program.

Lessons Learnt: The things that worked well in Kihiki HC IV to improve the PNC attendance at 6 weeks included; start of the QI project on PNC, CME on PNC, improved documentation, appointment of focal person, integration of PNC in immunization program

Recommendations: All midwives need to be mentored on what to do on PNC, start of the QI project on PNC, hold CME on PNC, held monthly meeting to review performance



THABLO21: Intersectoral collaboration for child health: the difficulties of negotiating a shared vision; **Ida Okeyo | University of the Western Cape, South Africa**

Achieving universal health coverage requires the health sector to work intersectorally with others to address the social determinants of health that contribute to health inequalities.

This is particularly crucial for early childhood development initiatives that aim to improve quality and access for children younger than three years. Despite this recognition, there has been limited focus on policy formulation processes of intersectoral initiatives, a key stage that involves decision-making processes regarding appropriate policy solutions. In addition, few studies have examined what contributes to ensuring policy traction of intersectoral initiatives and the role of actors where there are multiple perspectives on appropriate policy responses.

In order to address this gap, this study explores the influence of policy actors during the formulation of the First 1000 Days initiative, an intersectoral policy aimed at improving early childhood development. Data collected was focused on tracing the development of the initiative over a two-year period within the Western Cape Province. Analysis triangulated data from document review, observations of decision-making processes and in-depth qualitative interviews with 20 key informants.

Early findings suggest the re-shaping of the initiative over time resulting in a loss of its intersectoral focus. The process of re-shaping was influenced by how actors viewed the initiative based on their interests, and how they acted through various forms of power. Although a high level of political attention and advocacy by the academic community led to the rise of the First 1000 Days initiative provincially, there was limited buy-in of its intersectoral focus amongst actors with decision-making power. Actors also engaged with intersectoral collaboration from different and at times, contradictory standpoints which made it difficult to negotiate for a shared vision.

This study highlights the importance of understanding how actors relate to intersectoral initiatives, particularly which actors should be mobilized to ensure system-wide commitment to similar initiatives.



THABLO22: Improving Skilled Deliveries through Focused 4TH ANC Visits in Facilities Linked to Community Health Units – Samburu County, Kenya; **Geoffrey Mukuria Mureithi | Ministry of Health, Kenya**

The organisation of primary health care for pastoral populations scattered over vast areas is still a major problem. This is what necessitated this six months (January to June 2018) leadership, management and governance project supported by Amref-Afya Timiza to improve delivery by birth attendant through community health units.

The project objective was to increase skilled deliveries by 25% from the current 37% (2018) to 54 % in facilities linked to community health units by end of June 2018 through up scaling focused four ANC visits. Samburu County had a population projection of 331,376 in (2018) projected from 2009 census, with estimated growth rate of 4.45 %. It has a land size of 21,022 square kilometers. The estimated number of pregnant women and deliveries is 14, 846 (4.48%) and 13, 023 (3.93%) respectively. The main purpose of the project was to upscale 4th ANC visits which could directly improve skilled deliveries in the County. Specifically, the project aimed at solving key issues such as bridging the gap between 1st ANC visits 78.6% and 4th visits 33.5% (DHIS 2016), inadequate budgetary allocations on MCH, poor documentation of health services, Inadequate human resource, poor access to health services where most communities were living more than 5 kms to the nearest facility, less number of community units and low skilled deliveries. The approach used was through redefining the role of TBAs, leveraging on mobile technology, Male involvement and awareness, awareness on fourth ANC visits and enhancing social accountability at the community level. It was learnt that, as the mothers completed 4 ANC visits, this directly led to increased IFAS uptake 65.6% to 90.4%, BCG coverage 80.5% to 89.5%, and skilled deliveries 35.1% to 44.7% thus improving Mother Child health.



THABLO23: Impact on maternal health outcomes following refurbishment of health facilities in Karonga district, Malawi;

Issue

Malawi has high maternal mortality ratio, 439/100,000 live birth¹. Contributing factors include: social cultural barriers, weak health systems which includes poor infrastructure, high teenage pregnancy, inadequate resources (human and materials) ¹. Karonga is among the districts contributing significantly to the high maternal mortality ratio in Malawi. Some health facilities were dilapidated, had bees and bats infestation in labour wards which produced offensive smell coupled with other related factors hindered women from accessing maternal services in these facilities. Christian Aid implemented a 3 years project in Karonga to improve access towards maternal and child health outcomes which would contribute towards reduction in maternal morbidity and mortality. One of the components focused on renovation of health facilities. This paper presents the outcome on key maternal health indicators after renovation.

Description

Conducted needs assessment; 3 health facilities were prioritized (Ngana, Mpata and Lupembe) for renovation which included replacement of ceiling and cupboards board, painting, installation of two solar panels for lighting at night (Ngana). Data was collected through desk review on antenatal attendance, skilled and unskilled birth attendance. Compared data nine months before and after renovation.

Lessons learnt: First trimester antenatal attendance increased significantly while minimal increase in 4 ANC attendances was observed in all the health facilities. The proportion of women attending skilled deliveries increased while unskilled deliveries also decreased at Lupembe Health centre. Indicators remained almost constant at Mpata health centre. The proportion of SBA decreased while unskilled deliveries increased at Ngana health centre.

Next steps: Use of integrated approaches, including health governance is vital in improving maternal health outcomes.

Key Words: Maternal Health Outcomes, Renovation



THABLO24: Maternal dietary diversity and micronutrient adequacy during pregnancy in East Gojjam Zone, Northwest Ethiopia, 2016; **Tebikew Yeneabat | Debre Markos University, Ethiopia**

Introduction: Monotonous and less diversified diets are common in developing countries like Ethiopia. Evidences on maternal dietary intakes during pregnancy are important to design priority intervention strategies to achieve the 2025 global nutrition target and reduce maternal and child mortalities.

Objective: This study was aimed to assess the dietary diversity among pregnant women and identify factors associated with inadequate dietary diversity in East Gojjam Zone.

Methods and setting: A community based cross-sectional study was conducted between April and June, 2016 among 834 randomly selected pregnant women. Women Dietary Diversity Score tool developed by Food and Agricultural Organization (FAO) and Food and Nutrition Technical Assistance (FANTA) was used. Data were entered into EpiData with double entry verification and analysis was done using SPSS version 20. Variables with $P < 0.05$ in multivariable logistic regression analysis were declared as independent factors associated with inadequate dietary diversity.

Results: The mean (\pm SD) dietary diversity score was 3.68 (\pm 2.10). Inadequate dietary diversity was prevalent in 55% [95% CI (52.3%-59.3%)] of pregnant women. Commonly consumed dietary groups were legumes, nuts and seeds (85.5%) followed by starchy staples (64.7%). Non-educated [Adjusted Odds Ratio (AOR)=4.68, 95% CI (1.54-14.20)], number of lifetime pregnancy [AOR=0.41, 95% CI (0.23-0.74)], number of lifetime birth [AOR=1.86, 95% CI (1.03-3.35)], not receiving of dietary counseling [AOR=0.83, 95% CI (1.22-6.55)] and meal frequency [AOR=0.51, 95% CI (0.356-0.73)] were associated with inadequate dietary diversity.

Conclusion: Consumption of less diversified food during pregnancy is common in the study area. Adequacy of micronutrient is not sufficient for more than half of the studied pregnant women. We conclude that food access is not a key factor for dietary diversity whereas being non-educated affected pregnant women to depend on less diversified food. Providing dietary counseling during pregnancy has been identified as an opportunity to improve nutritional practice for pregnant women.



THABLO25: Strengthening Health Systems in DRC; **Samy Ahmar | Save the Children, UK**

The Democratic Republic of Congo (DRC) is one of the poorest, most unstable countries in the world, and exhibits among the worst indicators on maternal and child mortality globally. The Kasai Oriental province in particular has indicators of access to healthcare that are below the national DRC average across the entire continuum of care. For this reason, the province was chosen by the Ministry of Health and Save the Children to design and implement a comprehensive health system strengthening (HSS) programme in three health zones, using the “3Es”

Methodology: essential services, essential products, and essential family and community practices. The programme focused on increasing access to maternal, neonatal and child health services at the community through introducing Integrated Community Case Management (ICCM), at the Primary Health Care (PHC) level through a range of interventions designed to increase the quality of the Basic Package of Health Services (BPHS) and in health zone hospitals to strengthen the surveillance, supportive supervision and referral functions. The programme was evaluated twice, after 3 years and 5 years of implementation, using the Tanahashi methodology for assessing levels of effective coverage of essential health services and locating the critical bottlenecks in the health system.

The results of this study show that the effective coverage has improved between the midline (2016) and the endline (2018) across a range of services including skilled birth attended (SBA) deliveries (from 10% to 44% effective coverage) and antenatal care (ANC, from 10% to 54%). Despite this, areas of challenge remain around critical aspects of the health system such as the cold chain for vaccines and the case management of acute malnutrition. Moreover, it appears clearly that unless the financial barriers to accessing healthcare are addressed, the effective coverage of basic health services will remain durably constrained.



THABLO26: Intermediary level between health center and district hospital to ensure access to comprehensive quality healthcare in an urban context in Rwanda; **Rutayisire Benjamin¹, Nathalie Umutoni¹, Veronique Zinnen², Melanie Mukantagara³ | ¹Ministry of Health, Rwanda, ²Enabel Rwanda, ³RBC/SPIU, Rwanda**

In a context of growing urban population and overstretched hospitals, the Rwanda Ministry of Health initiated a process of upgrading four health centers in Kigali in 2015. The aim is to bring quality health services closer to population and to relieve burden from District Hospitals. This paper presents the evaluation after 3-year implementation.

Description: The medicalization of the 4 HC (Remera, Gatenga, Nyarurenzi and Kanyinya) is the model developed and it consists of 2 weekly visits of a medical doctor for medical consultations, ultrasound with support of upgraded laboratory services and selected medicines.

Lessons Learnt: Indicators for fiscal year 2017/18 suggest that the HC vary in terms of location (2 rural, 2 urban), catchment area (from 12,000 to 76,000 population), consultations (from 25,000 to 65,000), deliveries (from 187 to 879), workforce (from 13 to 31 staff) and utilization related to medicalization (average of Medical consultation per visit was 24 for Remera, 29 for Gatenga, 19 for Nyarurenzi and 24 for Kanyinya). A total of around 600 ultrasound investigations were performed. Despite good achievements of the medicalization model to date, recurring challenges jeopardize the process. The availability of extended Health Service Package would serve to resolve some faced challenges like non-reimbursed services and unavailability of some specialized services.

Next Steps: The medicalization provides lessons and a solid experience to learn. The current model constitutes a cornerstone of the strategy. The approval of an official EHSP constitutes the prerequisite for institutional, technical and financial sustainability of the medicalized HC. In addition, the process requires substantial resources that are not immediately available. A phasing approach will enable stakeholders to monitor the impact of different interventions, test hypotheses and adjust accordingly – therefore limiting the risks.



THABLO27: Diagnosis and management of acute pulmonary embolism at Kigali University Teaching Hospital; **Emmanuel Ndikubwayo¹, Abel Kagame¹, Osée Sebatunzi¹, Jean Paul Rwabihama¹ | ¹University of Rwanda, Rwanda**

Background: Acute Pulmonary Embolism (APE) is a worldwide health problem with variable and nonspecific clinical presentation. The study aimed to describe the clinical outcome and management of APE in a referral hospital in Rwanda.

Methods: For this retrospective study, we used clinical records of patients who were admitted or consulted the internal medicine department at Kigali University Teaching Hospital with APE from January 2008 to December 2012. The diagnosis was based on clinical symptoms and signs, laboratory, imaging and autopsy confirmation.

Results

In total, we worked on 36 patients. APE was predominant in females (81.8% percent). The predominant age was between 20-40 (72.2 %), over 40 years was 18.2 percent and less than 20 years was 9.1 percent. The most common symptoms were dyspnea (100 %), cough (72.7%), pleuritic chest pain (45.5%), thigh pain (18.2%), hemoptysis (18.2%). The most common signs were tachycardia (90.9%), tachypnea (72.7%), Oxygen saturation <92%(100%), Hypotension(36.4%). CT Angiography was done for 18.2% of all patients and It was positive for all. Heart ultrasound was asked in 63.6% of all patients, 85.6% was in favor of APE. EKG was asked in 63.6 of all patients, and only 42.9% was in favor of APE. Arterial blood gas was done in 9.1% of all patients and It was positive. No patient has gone D dimer test neither leg ultra sound nor ventilation perfusion scan. In total, 81.8% of the patients were discharged healed and 18.2% died in the hospital. Only 27.3% was discharged on oral anticoagulant.

Conclusion: The APE is underdiagnosed and physicians need to improve the management of this frequent vascular disease in order to reduce the morbimortality of APE at this referral teaching hospital in Rwanda.



THABLO28: A user centered approach to increasing contraceptive uptake through community based distribution program
Kilifi, Kenya; **Wanjiru Mathenge | SBCC, Kenya**

Background: Family planning has improved significantly in Kenya reporting a mCPR of 58.3% up from 26.9 (KDHS 1989). The Kenya RH strategy promotes Long acting and reversible contraceptive (LARC) information and services provided at all levels of the health care system except for insertion and removal of implants / IUCDs offered only from level two onwards. With vast disparities existing in access to service provision and quality of care in the country there is need to generate evidence to advocate for task sharing of FP service delivery for implants to level 1 through CHEWs. This aligns to track 1.3. Kilifi County is considered hard to reach and has a low CPR at 33%. In country qualitative studies additionally identify the male partner as a huge barrier to FP uptake.

Methodology: The social ecological model holds behavioral decisions are influenced by external members of the community. In-depth interviews and focus groups of single and married men and women, community leaders and health workers were done to assess the perceived barriers to contraceptive uptake and their thoughts on a CBD program in Kilifi County.

Results: Men hold on to traditional roles for their wives “to bear many children, check off the dowry paid...name our ancestors”. Women liked it; “we will not travel far, we can plan for our children and our lives”. Who would do the insertion “Any trained health care worker with identification...” Home and central community locations were suggested for insertions. Men must be present during insertion and alternative venues sourced if the CHEW is a man. Awareness creation across different segments of the community was considered a key success factor.

Recommendations: User centered design toward redesigning health care is important to effectively address cultural and social barriers to FP uptake; for her and the people that constitute her community



THABLO29: Optimal coverage and placement strategy of CHWs to support malaria preelimination efforts in Homabay County in Kenya: using mathematical modelling; **Mable Jerop | Amref Health Africa**

Background: Downward trend in malaria prevalence in Kenya has largely been contributed through review of national policies such as test and treat, introduction of community case management of malaria (CCMM), intensification of Indoor residual spraying and LLIN distribution. Case management strategy (CHS) 2009- 2018 required 100% of all malaria suspected cases managed according to treatment guidelines. To achieve this, use of Community Health Workers (CHWs) for CCMM has been strongly beneficial due to scarce resource of health care providers and high malaria burden in endemic zones in Kenya. Achieving pre-elimination requires continued readiness to deliver malaria services in response to actual disease burden. The question though is whether the national CHS of CHW placement is efficient in ensuring prompt treatment of malaria cases in high burden areas.

Methodology: CCMM is being implemented by Amref Health Africa in Kenya through the Global Fund Grant within Nyanza and Western regions of Kenya. CHWs are trained in management of uncomplicated malaria at household level while referring severe malaria cases, pregnant women or other ailments to health facility. This concept will seek to use mathematical models to develop an optimal coverage and placement strategy of CHWs to achieve a specified level of reduction in Malaria prevalence in Homabay County. Datasets will be drawn from DHIS and CHIS and analytics done using ArcGIS and R software. Parameters to be analyzed include malaria prevalence rates, incidences rates, population density and its stratifications and accessibility to health care.

Results: Analytics and illustrations of the concept intends to show the effect of various coverage and placement strategies of CHWs in Homabay County to achieve different fractions of malaria prevalence. An optimum algorithm will then be identified and compared to the existing community structure.

Conclusion: A viable tested CHS structure is critical in enhancing efforts in malaria pre-elimination efficiently.



ABSTRACTS: POSTER SESSIONS

TUPE01

Disclosure of sero-status to partners: facilitators and barriers; **Helena Afriyie-Siaw¹, Dennis Bandoh² | ¹Suntreso Government Hospital, Ghana, ²Ashanti Regional Health Directorate, Ghana**

Background: The global burden of HIV/AIDS requires exploring all mitigating approaches and techniques that confront new infections. Disclosure of Sero positive status to partner remains crucial. The evidence of low disclosure among clients on ART has raised concern about likely increase in HIV. This study looks at the issue of disclosure and identifies the factors that causes low disclosure of Sero Status among HIV Clients at Suntreso Government Hospital in Kumasi, Ghana.

Methods: A cross sectional study using structured questionnaires, comprising factors that influenced disclosure/non disclosure. 667 participants who consented were interviewed. The data coded, stored and analysed using SPSS 16.0.

Results: Among the study participants, a little above average 56.8% (379/667) had disclosed their HIV Sero Positive status to their partners despite the admission by nine (9) in every ten (10) respondents of the importance of spousal disclosure. Proportionally, persons who lived with one partner /spouse had higher disclosure; 53% (354/608) than clients who had two partners; 37.1(13/35), three partners; 47.4% (9/19) but except for those with four partners; 60 % (3/5).

Conclusion: The study revealed that despite the acknowledged benefits of HIV positive status to disclosure, the knowledge alone does not translate into the practice of disclosing. The facilitators of disclosure are knowledge of partner's status, duration of relationship, clinical stage of the disease, social support, ethical responsibility, gender, and prior discussion about HIV testing. Whereas barriers to disclosure include: stigma and discrimination, fear of violence, fear of accusations of infidelity, fear of loss of economic support from partners. However, the risks of adverse outcomes of disclosure hinder disclosure, strategies to support disclosure and decisions to disclose to sexual partners should critically weigh these issues in the context of HIV risk reduction.

TUPE02

Addressing youth friendly services to upscale sexual reproductive health services uptake among young people in Narok County;
Brian Otieno | INERELA+, Kenya

Background: Youth friendly Sexual Reproductive Health (SRH) services are services that cater for 10-24-year-old SRH needs which is wanting in Kenya. According to Kenya Service Provision Assessment Survey KSPA 2010, only 7% of health facilities in Kenya offer Youth Friendly Services (YFS). The public sector remains the major provider of contraceptive methods; 60 % of modern contraceptive users obtain their contraception from a government source with almost 30% of girls aged 15-19 years accessing their contraceptives from a private health facility.

Methods: Female youth aged 15-24 years; male youth aged 15-24 years old were engaged in the 9 areas where the interventions were implemented. A total of 450 respondents were interviewed as anticipated. The main services sought were Family Planning, HIV services and information on SRH. The evaluation exercise was coordinated in close collaboration with Christian Aid staff (the SRH Project Officer and M&E Officer), a research consultant and partner staff involved in project implementation in respective project catchment areas. The Evaluation Team (ET) conducted workshops and use of thematic context analysis in coding the results and findings. A total of 19 KIs and 11 FGDs were administered at multi-stakeholder levels.

Results: The percentage of young women aged 15-24 reporting use of family planning was 46.7%; (n=42), compared to the baseline only 15.1% of young women reported that they were using modern FP methods. Although the youth are not yet demanding SRH services, only 34.4%; n=31 young women reported seeking SRH services as compared to 25.9%; n=22 of their male counterparts. This data reflect the 23.0% unmet need and 61.4% of young people 15-19 years demanding for family planning, KDHS 2014

Conclusion: Availability of SRHR services is not sufficient by itself to increase family planning uptake among young people without proper age appropriate services.

TUPE03

Increased knowledge on HIV and AIDS in communities along road construction sites in Southern Tanzania; **Anatory Didi¹, Amos Nyirenda¹, Aisa Muya¹, Frida Ngelasoni¹, Jonhstone Sendama¹, Tumaini Mashina¹ | ¹Amref Health Africa, Tanzania**

Background: Road construction attracts migrant workers from within a region and across country. There are evidences from International Labour Organization (ILO) Report 2007 that listed lifestyle factors which expose workers to risk of HIV. In this context, Amref health Africa-Tanzania and Euro Health Group-Denmark (EHG) were contracted by Tanzania National Road Agency (TANROADS) to provide consultancy services for HIV sensitization targeting road construction workers and community members along Tunduru-Mtambaswala from June 2014 to March 2018. This aimed to educate road construction workers and community members on HIV prevention. The baseline survey was carried out to set benchmarks. At the end, evaluation was conducted to assess knowledge gained.

Methods: HIV sensitization project was conducted collaboratively with district and communities. Sensitization was done through community bonanza and peer educators. At the end evaluation was conducted. The evaluation was a cross-sectional. It deployed mixed methods to capture qualitative and quantitative data. Target population were road construction and community members. ILO (2008) survey tools were adapted for households' data collection. Key Informants self-administered questionnaires were administered. A stratified purposive sampling technique was used to select 112 households along Tunduru-Mtambaswala road, southern Tanzania. Qualitative information was summarized and quantitative information analyzed using excel.

Results: Findings indicated increased knowledge of HIV and AIDS whereby 100% of men and 98% women expressed that the HIV cannot be transmitted by mosquito bites as compared to 94% men and 90% women respondents at the beginning. Also 99% men and 98% women reported that a person cannot become infected with HIV by hugging as compared 90% men and 92% women who knew that a person cannot become infected with HIV by hugging a person infected with HIV at the beginning.

Conclusions and Recommendations: Community members gained knowledge on HIV and AIDS services.

Key words: Knowledge, HIV, Community, road construction

TUPE04

Assessing alternative menstrual hygiene management practices amongst adolescent girls in selected schools in Gulu, Kitgum and Pader in Northern Uganda; **Teo Namata | Amref Health Africa, Uganda**

Background: Menstruation is still clouded with poor menstrual hygiene management resulting in adolescent girls experiencing adverse health outcomes. For young girls in poor, rural settings who often receive minimal instruction on what menstruation is and how it can be managed, the experience has been described as frightening and shame-inducing. The associated effects of menstruation, hygienic requirements among others has implications for young girls' school attendance and self-esteem.

Objective: We assessed alternative Menstrual Hygiene Management (MHM) practices amongst adolescent girls in selected schools with a focus on understanding the level of knowledge on MHM, alternative hygiene management practices, effects of MHM practices amongst school going adolescent girls.

Methods:

A pre-designed structured questionnaire was administered to a total of 320 (10 girls aged between 9-16 per each of the 32 targeted schools). In addition, 14 focus group discussions each consisting between 11-13 members were also conducted. Quantitative data was analyzed using SPSS while content analysis was employed for qualitative data.

Results: 75.1% of adolescent girls in these schools use sanitary pads followed by old pieces of clothes 23%. However, the pads and clothes are used for long hours (7-10) a day which leads to leakages, smell, burns and swelling. The effects of abdominal pain 79.41%, backache, general body weakness combined lead to girls missing school. Lack of proper disposal of used menstrual material, poor access to water and soap to bathe or wash are contributing factors to improper menstrual hygiene in targeted schools.

Conclusions: Menstrual hygiene management practices are a key aspect in keeping girls in schools and for effective menstrual hygiene management, reliable WASH practices and facilities must be in place.

TUPE05

The political economy of universal health coverage (UHC): evidence and lessons for Nigeria; **Ibora Nelson | University of Uyo, Nigeria**

Background: Today, after many years of doubt, pessimisms and uncertainty, the world has revisited Universal Health Coverage (UHC) and adopted it as a global health priority under the SDGs. But at the core of strategies to move this goal forward is the need to sustainably finance health services for social equity and financial risk protection. The work bases its arguments on the augmented human capital growth theory to argue that the value of human capital and the resulting productive capacity of the economy justifies the central role of public policy in financing UHC.

Method: The paper uses an analytical approach of political economy to benchmark Nigeria's experiences with six (6) countries in Africa and Asia, using the Murray and Frenk's functions-of health systems framework which describes each country's approaches to raising revenue, pooling risk and purchasing services and coverage-box framework which assess progress across the three (3) dimensions of coverage: who is covered, what services are covered and what proportion of health cost is covered. Data were sourced from ILO, World Bank and WHO databases and published articles.

Result: A synthesis of the result of the review of the UHC implementation in the selected countries and comparison with Nigeria's experience shows substantial variations and at the same time clearly reveals broad issues for policy consideration for the country- key among which is extending effective access to the poor and the informal sector and financial protection at the point of service.

Conclusion: The first wealth of a nation is its population health. While private and even donor financing plays supportive role in all health systems, it is public financing that drives improvements in health performance on key UHC indicators such as financial protection and access to quality health services.

TUPE06

The effect of gender inequality on sexual reproductive health service utilization: the case of Afar, Ethiopia; **Muluken Dessaegn¹, Miheret Ayele¹, Yeshitila Hailu¹ | ¹Amref Health Africa, Ethiopia**

Background: Afar is one of the region in Ethiopia with high HIV and STI prevalence among reproductive group, low antenatal care coverage, lowest skilled delivery assistance rate, and about 98% of women aged 15–49 years have undergone one or more forms of female genital mutilation. The main purpose of this research was to analyze gender context and propose set of strategies or actions to improve adolescent and youth SRH.

Method: A combination of different formal gender analysis frameworks were employed. These dimensions are gendered division of labor and workload; access and control over resources; assets and services and house hold and community level decision making; women and girls of self-efficacy and capabilities to make life choices and laws policies and institutions. The study population were adolescents and youth aged 10–29 years of age, adult women and men of age 30–49 and 30–54(8 FGD) respectively and 16 key informant sector offices. ATLAS.Ti software was used for coding and analysis

Result: The study revealed that women and girls are the most disadvantaged groups of the society. This is due to the high workload on women and girls (housekeeping, building a house and taking care of cattle and children), they also are less valued, have no control over resources and have no part in decision making including their personal life choices. As a result they are not able to access school and health facilities even if they demand to. They are forced get married according to arranged marriage called “absuma”. Thus they suffer from multiple sexual and reproductive health problem.

Conclusion: Women and girls’ poor decision making autonomy, lack of control over resources, limited participation in socio economic practice, child and early forced marriage, poor service utilization exposed them to the worst sexual and reproductive health outcomes.

TUPE07

The use of community elders to eliminate FGM; Experience from Tokomeza Project in Serengeti, Tanzania; **Godfrey Matumu¹, Serafina Mkuwa¹, Frida Ngalesoni¹, Aisa Muya¹, Florence Temu¹ | ¹Amref Health Africa, Tanzania**

Background: Globally, at least 200 million girls and women have undergone FGM/C, despite its recognition as a violation of human rights. Tanzania is no different, where; 7.6 million girls and women are estimated to be cut with Mara region (FGM prevalence of 39.9%) being among seven highest prevalent regions in the country. Amref through Tokomeza project, aimed at contributing to reducing this prevalence by explore contextual factors for FGM/C elimination in targeted population to inform tailored interventions.

Methods: Cross-sectional baseline survey, covering 1,392 (714 M: 678 F) people was conducted using multistage sampling technique. Data collection was through KAP tools, FGDs and KIs while quantitative analysis was performed using SPSS v.17 and qualitative data was transcribed based on themes.

Results: The baseline report showed that the practice is cultural based even though few male (31.5%) and female (29.2%) respondents felt it was absolute necessary. Nevertheless, decision to do or not do the ritual is on elders, as quoted "decision to practice FGM/C is made by traditional elders (abhaghaka-bhiikimila) after communicating with ancestral spirit (iresa). Elders are also responsible to spiritually approve cutters (abhasaari). Elders have their council at least 12 are appointed to have a final say over the whole community. Once elders make decisions, none goes against it. They punish in many ways including calling suspects to sacred places, confessing, taking oath by crossing so called '7 sticks' for bad luck".

Conclusion and recommendations: Using traditional elders and local leadership structures as avenue to challenge stereotypes on FGM/C, communities have proved to be effective in Serengeti district. We strongly recommend interventions using human rights principles to empower elders and communities to ultimately abandon FGM/C practices.

Key words: Female genital mutilation/cutting (FGM/C), prevalence, Serengeti, Tanzania

TUPE08

Cultural and religious barriers to attainment of favorable adolescent sexual reproductive health rights (SRHR) outcomes among young people in Amuru District in Uganda; **Stephen Mutinyu¹, Margaret Mugisa¹, Tonny Kapsandui¹, Patrick Kagurusi¹ | ¹Amref Health Africa, Uganda**

Background: Uganda upholds the Sustainable Development Goal target 3.7 that focuses on ensuring universal access to SRHR services. Yet realization of favorable SRHR outcomes among young people has not been achieved. Early marriage is 33%, teenage pregnancy is 19%, high HIV prevalence is 9% and related sexual reproductive health complications like fistula are at 2%. In Amuru, a northern district in Uganda, utilization of the SRHR services is low and yet young people are faced with limited access to SRHR services. Deliveries at facilities stand at 35%, the first Antenatal Care (ANC) attendance is at 16.9% while 4th ANC attendance is at 32.9%. Cultural and religious practices have been identified as significant factors that risk and bar young people from accessing SRHR services in Amuru. This study therefore sought to identify the cultural and religious barriers to effective utilization of SRHR services in Amuru District.

Methods: Using a cross sectional survey design, data were collected from 30 cultural leaders and 20 health workers through interviews and 50 young people through interviews. Qualitative data were analyzed using thematic analysis.

Results: Cultural barriers to attainment of favorable SRHR outcomes were; long sexually exposing cultural ceremonies, early marriages, need to have many children and negative cultural perceptions about utilization of SRHR services. The religious barriers were; identified as restrictions on use of family planning services, promotion of polygamy, long religious ceremonies which keep youths away and reluctance of religious leaders to promote SRHR.

Conclusions: Culture and Religion are powerful forces in barring attainment of favorable SRHR outcomes among young people in Amuru. There is need for all the stakeholders to effectively address cultural and religious barriers in order to enhance the utilization of SRHR services.

TUPE09

Evolution of the intergration of sexual reproductive health rights and Water, Sanitation and Hygiene interventions in Kilindi District, Tanzania; **Jane Sempeho | Amref Health Africa, Tanzania**

Issue: Kilindi District of Tanzania, whose residents are mostly underserved nomads, has been challenged with poor sexual and reproductive health and rights(SRHR)indicators including high teenage pregnancy -23%, FGM- 19.9%, GBV -15.7% and low facility deliveries -55% as per the 2010 TDHS and THMIS 2007/08. Apart from this, insufficient HRH, poor infrastructure, and poor cultural norms are also contributing factors for poor access to SRH care delivery.

Description: Over the years, there has been a change of interventions to suit community needs and to improve uptake of the SRHR messages. A total of 3 projects (NomadicYouth-NY, Pamoja Tunaweza (PT) and Altenative Rites of Passage Scale Up-ARP SU) projects were implemented in Kilindi before the current integrated ARP and Water, Sanitation and Hygiene (WASH) project. During the implementation of NY (2008-2010), a gap of limited healthcare workers was noticed prompting the project to train healthcare workers on provision of quality reproductive, maternal, newborn and child health services. The PT project (2011-2015) went further to build health facilities which reduced the gap from 71% to 68%. A high prevalence of FGM (15% Tanga Region) was noticed during the implementation of PT hence ARP model was introduced in ARP SU project in 2013-2016. Masaai communities were capacitated on anti-FGM and supported to conduct community led ARP celebrations. Shortage of water in the communities lead to seasonal mobility of some of the community members, hence hindering a continuity of SRHR intervention efforts. This lead to designing a new five years project to address both SRHR and WASH in 2016 with the assumption that provision of water sources will make the peer educators sedentary hence continue with awareness raising.

Lessons Learnt: Community centered projects through co designing with community members lead to effective programming and sustainability due to ownership of the interventions.

Next steps: Meaningful community involvement in studying gaps and co-design of interventions should be promoted for future integrated programming.

TUPE10

Challenges to menstrual hygiene management in secondary schools in Addis Ababa; **Deborah Fetene¹, Walelegn Worku² | ¹Amref Health Africa, Ethiopia, ²Addis Continental Institute of Public Health (ACIPH), Ethiopia**

Background: Millions of women and girls continue to be denied their rights to Water, Sanitation, and Hygiene (WASH), health, education, dignity and gender equity. Especially menstrual hygiene has been largely neglected by WASH. If the situation does not change, it may not be possible for development programmes to achieve their goal. The objective is to explore menstrual hygiene management related challenges for school girls in secondary schools of Addis Ababa, Ethiopia, 2016.

Methods: Exploratory qualitative research was conducted from January to March 2016. Six focus group discussions eight in-depth interviews and five key informant interviews were conducted among youth girls in five schools. Level of saturation was used to determine the number of interviews and thematic content analysis was used to analysis the data.

Results: Finding shows major challenges experienced by the school girls were, fear of leakage and staining, fear of teasing from boys, pain (dysmenorrhea) and fail to manage menstrual flow at school. As a result, girls preferred to stay at home especially on the first day of their menses.

Conclusion and recommendation: Menstrual hygiene management related challenges are negatively affecting girls' participation in school. Most of the challenges were the results of environmental, biological and interpersonal factors. The first two factors can be reduced by provision of clean, private latrine with water, dust bin and absorbents and involving boys in training. Working on dysmenorrhea/ pain management is also the other key to reduce girls' absenteeism.

TUPE11

Mobile Health for improved maternal and child health services utilization | **Mamaru Ayenew¹, Muluken desalegn¹ | ¹Amref Health Africa, Ethiopia**

Background: Amref Health Africa launched a pilot project called Mobile Health for Improved Maternal and Child Health Services Utilization (MCH) in North Shewa Zone of Amhara Region, Ethiopia. The project aimed to improve MCH outcomes by leveraging technology.

Description: Since November 2017, Amref Health Africa partnered with a private company called Medic Mobile based in Kenya established a pilot project called M-health to reach mothers who are either pregnant or who have children below 2 years. Health extension workers use their own cell phone to receive text messages, which focus on early identifying pregnant women and then following timely each ANC(ANC1-ANC4) services, facility delivery, PNC, immunization and vitamin A supplementation.

Lesson learnt: As compared to the baseline, maternal and child health service utilization tremendously increased. The mobile health project also able to address quality, equity and access by reaching pregnant women and children who live in hard to reach areas. We have learnt that the mobile health intervention improves the district health system to monitor the service delivery. The mobile health initiative enabled the district regional health focal person and midwives to easily follow the status of each and every pregnant women and children. Apart from this, m-health helped for data quality improvement.

Next step: Despite the M-Health project improved the linkage of pregnant women and children with formal health system, we identified some gaps on service providers which potentially affect the continuum of services. Therefore, e-learning is essential to healthcare providers that provide updated clinical information through medical aids video.

TUPE12

Design water supply schemes with solar based motorized submersible pumps and provide a multiuse water supply for the community; **Geteneh Moges Assefa¹, Kulule Mekonnen¹, Abebe Birhanu¹ | ¹Amref Health Africa, Ethiopia**

Issue: Amref Health Africa in Ethiopia, implemented project entitled “Integrated WASH and livelihood for pastoralist communities residing in Afar zone 1, Mile, Aysyta, Chifra and Afambo weredas”. Design water supply schemes with solar-based motorized submersible pump and provide a multiuse water supply for the community.

Description: Mile River the only water source’s (with fecal matter, dead animals and other wastes) have been used in Giraro Anaykalo kebele’s community. Women and girls wasted their time (traveled 10 km for the round trip) fetching water as they took more than 1 hour.

Lessons Learnt: Constructed solar water pump with 10,000 liter Roto reservoir and 2 water distribution point within less than 1 km distance for communities and livestock. Prevalence of diarrhea in the area was reduced and women are saving their time for other activities, girl students were properly attending their learning process, pastoral community used the leftover (surplus) water for agricultural activities and got good yield maize crop (more than 3 hectares by using drip irrigation).

This water scheme serves for 3000 people as the whole kebele and Haflu village for the total population of 500 (Female=255 Male=245). In fuel based motorized pump the running cost for diesel generator with 6 Kilovolt (equal to the installed solar pump) needs per day 5-liter fuel which is around 100 birr per day. Government is to use this renewable energy technology for new and replace the existing fuel based motorized schemes.

It needs only initial costs (solar panel and submersible pump) and once installed by skilled technical professionals, its operation is simple and easy. Women and men have equally involved from the planning to implementation phase.

Next steps: WASCHO formed as governing body with Male =4 and Female =3 and scale up is initiated for other sites.

TUPE13

Barriers to provision of emergency obstetric care in Samburu County, Kenya: Health workers' perspectives on service deliveries, a mixed methods study; **Jarim Omogi¹, Diana Mukami¹, Fredrick Majiwa¹ | ¹Amref Health Africa, Kenya**

Background: Improving obstetric care is one key factor for the achievement of the sustainable development goals number 3. Increasing women's access to and use of facilities for childbirth is a critical national strategy to improve maternal health outcomes in Samburu. The MNCH figures in Samburu County remains relatively below the national average with women receiving ANC from a skilled provider being 73.8%, deliveries in a health facility (24.5%) while deliveries by a skilled provider being 29%.

Methods: The study was conducted in three Sub-Counties in Samburu County Kenya, and included health facilities in the County. (n=29). Each facility was assessed in terms of its supply of Basic Emergency Obstetric Care (BEmOC) services using pretested and validated assessment guidelines developed by UNICEF/WHO/UNFPA. Data were collected using a facility survey tool including information relevant specifically to the EmOC indicators. Other data sources were project reports and population surveys.

Results: A total 60% of the facilities had no ante natal ward, 72% were not providing post abortion care services while the total number of staff working in the maternity and newborn units was 64. No additional training of staff working in the maternity and new born units had been carried specifically on management of puerperal sepsis, active management of preeclampsia/eclampsia and assisted vaginal delivery. 73.1% had injectable penicillin and 11(42.3%) had a functioning MVA kit. 52% of the facilities had running water 53.8% had soap, only 2(8.3%) had individual reusable towels while a third had alcohol hand rub.

Conclusion and recommendations: Dedicated infrastructure, improvements in pre-service and in-service training and provision of disposables are needed to maximize the effective use of existing human resources and infrastructure, thus increasing access to and the provision of timely, high quality emergency obstetric care in Samburu County, Kenya.

TUPE14

Strengthening implementation of maternal perinatal death surveillance and response (MPDSR) at Rwekubo HCIV, Isingiro District; **Mwesigye Bernard¹, Tusiime Fortunate², Gloria Ndagire Kisakye³, Wasike Samuel¹, Kajungu Clemmy⁴ | ¹Amref Health Africa, Uganda, ²USAID RHITES SW, Uganda, ³Rwekubo HC IV, Uganda, ⁴Isingiro District local government, Uganda**

Background: Institutional perinatal mortality rate in Isingiro district was 16 per 100,000 deliveries in 2017 above the regional average of 14. The MPDSR review process as recommended by the MOH enables identification and response to avoidable factors contributing to maternal and perinatal deaths. Despite USAID RHITES SW support to MOH in building provider's capacity to implement the revised MPDSR guidelines, actual implementation at sites has remained a challenge. We describe our learning experience in strengthening implementation of MPDSR as a means of improving quality of care and outcomes at Rwekubo HC IV.

Method: Between July 2017 and March 2018, there was an average of 20 perinatal deaths per quarter at Rwekubo HCIV with only 19% reviewed. A root cause analysis by USAID RHITES SW revealed knowledge gaps due to failure by the few trained staff to disseminate information, non-functional committee with no clear leadership and negative staff attitude towards the reviews due fear of consequences. USAID RHITES SW and the District MPDSR focal person conducted continuous support supervision and site level mentorships guiding the team on actionable plans to address factors contributing to the deaths. Facility staff were reassured to allay fears and a site MPDSR focal person selected. The facility in charge was empowered to monitor implementation and staff agreed to allocate time during their weekly meetings to review all deaths that occurred the previous week.

Results: All perinatal deaths (100%) were reviewed in April-June 2018 quarter, up from; 36% (Jul-Sept 2017), 0%-(Oct-Dec 2017) and 5% (Jan-March 2018).

Discussion & conclusion: Successful implementation of MPDSR requires strong leadership and a functional committee that meets regularly. Targeted support supervision and site level mentorships to build capacity and allay fears of health workers is necessary to have functional MPDSR committees.

TUPE15

Perceived effects of burnout on patients and its management among nurses in intensive care unit and emergency department at Kigali University Teaching Hospital; **Emeline Umutoni Cishahayo | University of Rwanda, Rwanda**

Background: The level of burnout is high among nurses working in Intensive Care Unit (ICU) and Emergency Department. Burnout has effects on the nurses and the patients. In Rwanda, there is no research conducted on the effects and the management of burnout among nurses working in ICU and Emergency Department.

Objective: The aim of this study is to explore perceived effects of burnout on patients and its management among the nurses working in ICU and Emergency Department at Kigali University Teaching Hospital.

Methods: The study used a qualitative, exploratory, descriptive design. Two focus group discussions of six nurses each were conducted among ICU and Emergency Department nurses in a referral Hospital in Kigali. Participants were selected using a purposive sampling. Data were analyzed using a thematic analysis method.

Results: Participants of this study agreed that burnout compromises patient care to a certain degree though they make great efforts to avoid affecting patients. Conclusion: Patients are affected when nurses are burned out therefore measures have to be put in place to prevent and manage burnout among nurses.

TUPE16

Film for social change: the experience of Dagoretti Film School; **Patricia Kwamboka | Amref Health Africa, Kenya**

There is no greater tool for change than the power of storytelling. Facts can be easily forgotten, but stories live on for generations to come. Documentary films can educate, raise awareness, and inspire change like few other forms of media. In a world where visual media dominates and social media is the channel through which we communicate, there is no better tool for changing hearts and minds than the feature-length documentary films. In 2017 the Dagoretti Film School produced *The Cut* a film about a young boy who is trying to save his younger sister from FGM and forced early marriage. Other themes covered by the film include: Gender Based Violence; Children in Street Situations; Alcoholism; Violence against Children; and Maternal Health. Through a participatory approach child developed a script based on stories borrowed from their experiences on child rights abuses. Most of the scenes in the movie were drawn from real life events the children narrated. The film engaged youth who are former beneficiaries of Dagoretti Child Protection and Development Centre to realize. The objectives were: to reach out to different audiences and address child protection issues through advocacy; to raise awareness on the Child protection work of Amref; to use the film for income generation to support work in child protection. The film has been watched by communities living within the informal settlements of Dagoretti, Kibagare, Mukuru Kayaba, Kuwinda and Gataka. Since, it premiered at the Silicone Valley Diaspora Film festival, California USA in July 2017 it has been nominated to 9 film festivals and screened to audiences across 3 continents. To date over 20,000 people have watched it. There are requests for screenings in USA and Canada that have potential for raising funds.

TUPE17

Harnessing mobile technologies to bridge the knowledge gap of community health workers on diabetes and hypertension in Makueni and Kajiado Counties, Kenya; **Leticia Buluma¹, Edna Osebe¹ | ¹Amref Health Africa, Kenya**

Issue: Accurate, reliable information on diabetes and hypertension is critical for awareness, early diagnosis and management. Therefore, Takeda, Amref Health Africa and Makueni & Kajiado County Governments partnered to bridge this knowledge gap, targeting 100 Community Health Workers (CHWs) to create awareness, manage and counsel patients and care givers in their communities.

Description: The partnership therefore designed an approach to train CHWs using two innovative solutions: Leap, the mHealth platform, and M-JALi. Leap empowered the CHWs by delivering learning materials on diabetes and hypertension to their mobile devices, enabling them to identify, refer and follow up patients in their communities. The CHWs used M-JALi for community health reporting using the mobile phones.

The pilot saw 23691 community members screened, of which 2155 were known hypertensive, 752 known diabetics, 14870 normal, 5462 had hypertension and 452 had diabetes. Out of 5914 clients requiring reviews, 2006 came of whom 1417 were normal, 512 had High Blood Pressure and 77 had High Blood Sugar. Pre- and post-tests administered to the CHWs revealed increase in knowledge.

Kajiado CHWs' average post-test score was 75.6% against a pre-test of 36.8% on hypertension and 68.6% against 54.7% pre-test on diabetes. Makueni CHWs' average posttest was 90% against a pre-test of 43% on hypertension and 83.1% against 62.1% pre-test on diabetes.

Lesson Learnt: Knowledge is key at household level to improve health outcomes.

Next Step: Using the Points of Care model to improve disease awareness, and ensure availability, accessibility and affordability of health services for patients.

TUPE18

Afa Genaro and Kashaf, are among 35 kebeles where Amref Health Africa is implementing Replenish Africa Initiative (RAIN) project, funding of Coca-Cola Foundation in Benshangul gumuz region; **Geteneh Moges¹, Kulule Mekonnen¹, Abdissa Aga¹ | ¹Amref Health Africa, Ethiopia**

Description: Hygiene and sanitation were very poor in these kebeles, with rampant open defecation practice, People were relieving themselves in the bushes. It was quite common to see feces within the household yard. Proper hand washing was a rare practice. This caused diarrheal disease highly prevalent. "Community defecates open, especially children, some also defecate in latrines that are hazardous to them and the environment," Esmael, Kashaf Kebele. Ali, Afa Genaro Kebele, "We had to spend a large amount of money to pay for medication. We didn't even recognize that the main reason for the diarrheal disease was poor sanitation."

The onset of RAIN, project uses an integrated approach of Community Lead Total Sanitation and Hygiene (CLTSH) and Sanitation Marketing (SM). Through CLTSH, raising awareness towards open defecation free environment & demand for improved sanitation, and supported the established two Sanitation Marketing Centers, managed by Income Generating Groups that produce and sell latrine slabs. The approach supported by local partners. "In addition to helping kebeles achieve open defecation free status it also shined a new hope in increasing the access of improved sanitation," said Ibrahim, Menge Woreda Health Office Head.

Lessons Learnt: The knowledge, attitude, and practice of the community towards sanitation and hygiene have begun to change. "We are now well aware that constructing our own latrine and using it properly is an effective means to curve our vulnerability to diseases. Proper hand washing has become our daily routine. As the result, diarrheal cases are decreasing. Thanks to Amref Health Africa," said Ali. The community is determined to sustain these positive changes and want to construct better toilet with an iron sheet roof. RAIN project supported the construction and rehabilitation of 140 toilets in Afa Genaro, through CLTSH approach and Kashaf, 58 households have upgraded their unimproved latrine by purchasing slab.

TUPE19

More than hardware: the importance of context in health information systems efficacy in Malawi's Standard Based Management Recognition (RH) Program; **Ellen Chirwa¹, Zubia Muntaz², Patrick Patterson², Janet Mambulasa¹, Fannie Kachale³, Madalitso Tolani¹, Josephat Nyagero⁴** | ¹Kamuzu College of Nursing, Malawi, ²University of Alberta, Canada, ³Ministry of Health, Malawi, ⁴Amref Health Africa

Background: In 2006 Malawi implemented the Standards Based Management and Recognition (Reproductive Health), or SBM-R (RH), initiative to reduce the maternal mortality ratio in public sector health facilities. The SBM-R (RH) approach included systematic facility-level monitoring to ensure that gaps in quality of care were identified and addressed. This paper presents results of a systematic facility-level evaluation and data analysis aimed at identifying quality of care gaps essential to the SBM-R (RH) approach.

Methods: A multi-method study of SBM-R (RH) institutionalization was conducted in 2017–2018. Data collection included in-depth interviews with policy-makers and implementers, a quality of care survey at six facilities, and a 6-month organizational ethnography.

Results: Analysis showed that these facilities possessed computer equipment suitable for SBM-R(RH) data management, but several factors impeded its use. Funding shortages forced the Ministry of Health to over rely on multiple NGO partners. Although NGO-supported computer systems worked, they were not well integrated and were not available in all facilities. Electricity and internet connections were also subject to lengthy failures. While facilities had backup power, the priority was on supplying critical health care services rather than health information systems. Finally, facilities were understaffed and personnel focused on direct patient-care rather than data management. Overall, none of the available systems captured the detailed data needed for evaluating compliance with SBM-R(RH) standards.

Conclusions and Recommendations: In Malawi, NGO-supported health information systems did not fully integrate with national and local requirements. In addition, locally available funding and infrastructure, particularly in rural areas, could not sustain high technology innovations. In resource-constrained contexts it is necessary to invest in key infrastructure, as well as long-term support for high technology systems, if the health system benefits are to be realized.

Key words: Malawi, Quality of care, Information systems, Health standards

TUPE20

Identity crisis among newly posted nonlocal health care workers and its impact on provision of quality health care services in health facilities in Kenya; **Michelle Dibo¹, Sheba Odondi¹, Jarim Omogi¹ | ¹Amref Health Africa, Kenya**

Background: Posting of health care workers (HCW) in Kenya is done on a shuffle and reshuffle basis where any HCW work in any region regardless of where they originated or schooled. The nursing curriculum is yet to factor inter-cultural training as a soft skill. Many of the newly posted HCWs face challenges in both prevention and treatment initiatives affecting Universal Health Coverage (UHC) due to culturally defined health seeking behaviors. This leads to identity crisis due to cultural misunderstanding and intolerance affecting quality of service delivery.

Objectives: To determine the level of identity crisis among newly posted non-local health care workers due to differences in culture and its impact on provision of quality health care services.

Methods: The qualitative study is based on interviews done among 72 health care workers working in level 3 facilities in Samburu, Kakamega and Nyeri Counties of Kenya in June 2018. They were asked on their perspective were they to work in Samburu, Turkana, Kwale, and Nairobi counties. A questionnaire was sent to the participants who filled it in. Qualitative data analysis was employed afterwards.

Results: There is high level of identity crisis among newly posted HCWs working in different sections of the country. HCWs said that they did not know whether to apply their own cultural beliefs or those of their communities. A majority stated that the identity dilemma was strongly founded on the community's outlook towards them as outsiders.

Conclusion: Inter-cultural competency is a requirement for HCWs in Level 3 facilities in order for them to fully, effectively, and efficiently offer health services to whichever community they are dealing with at a point in time.

Recommendations: Inclusion of inter-cultural competency, and other life skills trainings in the nursing curriculum for further attainment of Universal Health Coverage

TUPE21

Improving the quality of physiotherapy services in Kenya using international recognized accreditation standards; **Danielle Nijsten¹, Marieke Ponzo Dieu - de Pundert¹ | ¹IISAH Foundation, Kenya**

Up until 2017, physiotherapy in Kenya was not a registered profession. Nobody was tasked with quality assurance in physiotherapy services and everyone could practice physiotherapy without any control. As poor-quality care puts patient's health at risk we at IISAH have taken it upon us to address this issue.

IISAH started a pilot to measure quality and safety in physiotherapy facilities in Kenya, using international accredited tools designed for low- and middle-income countries. We assessed five facilities using these standards that cover all quality-related topics: Management and leadership, Facilities, equipment and contracted services, and Clinical services and patient care. Based on the assessment a facility is scored and a quality improvement plan (QIP) is drafted. The lead clinician is guided in implementing the QIP, while receiving mentoring and training. By using a Graded Recognition-approach, facilities can gradually work towards facility accreditation, receiving in-between certificates recognizing quality improvement.

Piloted facilities scored between 16 and 28% compliance with set standards. Lowest scores were reported on Management and leadership (11-20%) while clinics scored highest on Clinical services and Patient care (19-30%). Little differences were observed between clinics in Nairobi (N=2) and rural clinics in Western-Kenya (N=3). Clinics in Nairobi had an average score of 24% while rural clinics scored 21%.

The pilot-study and the results showed the lacking quality of physiotherapy services in Kenya and need for quality improvement. From 2019 onwards, we will implement the program on a larger scale targeting the counties with highest population density. This will give a baseline of the quality of physiotherapy. By guiding clinics towards international levels of accreditation we want to ensure safe and quality care for those in need. This makes Kenya the first country in Sub-Saharan Africa where a system for quality assessment in physiotherapy services according to internationally accredited standards is implemented.

TUPE22

Improving documentation of tuberculosis cases notified by Community Health Volunteers in high tuberculosis burden facilities in Kenya; **Anne Munene¹, Enock Marita¹, Christine Mwamsidu¹, Titus Kiptai¹, Faith Ngari², Benson Ulo¹ | ¹Amref Health Africa, Kenya, ²Ministry of Health, Kenya**

Background: Amref Health Africa is supporting community tuberculosis (TB) interventions as the non-state Principal Recipient for Global Fund TB grant, through sub-recipients. From 2011, vast resources were channeled towards supporting Community Health Volunteers (CHVs) to carry out these activities in Kenya including screening household contacts of bacteriologically confirmed TB patients and referral of presumptive contacts to facilities. Despite CHVs' active involvement, community contribution to TB case notification remained low at 4-5%. This could possibly be attributed to inaccurate documentation of TB patients referred by CHVs at facility level. A comparative analysis of pre and post intervention was done to elucidate incorrect documentation.

Intervention: In total, 106 facilities that notified 10 or more TB cases monthly in 2014 were considered. Monthly data review meetings were supported in these facilities, attended by TB clinic health care worker, Community Health Extension Worker and CHV attached to the facility. Data from community TB reporting tools filled by CHVs were compared with data in facility TB register under the 'referred by' column and discrepancies corrected. The meetings ensured community TB activities were well coordinated, correctly documented and challenges addressed. Comparison was done between the period July-December 2015 and July-December 2016 using data from the national electronic TB reporting system, TIBU.

Lessons learnt: Out of 8,015 TB cases notified in 2015 from the 106 facilities, 308(4%) were CHV referrals, 6,097(76%) self-referrals and 1,610(20%) from other sources. The same facilities in 2016 notified 7,227 cases including 754(10%) CHV referrals, 5,119(71%) self-referrals, 1,334(18%) others and 20(1%) not indicated. CHV referrals increased by 446(59%) from 2015 to 2016 despite 7% drop in cases notified in 2016. Referrals by CHVs are commonly recorded as self-referrals in TB registers underscoring need for data review. Structured data review forums at facility level significantly improved documentation and should be scaled up.

TUPE23

Underlying socio-cultural practices influencing Prevalence of Female Genital Mutilation/Cutting (FGM/C) in Kajiado County;
Bernard Mbogo | Amref Health Africa, Kenya

Background: FGM/C has brutal consequences for a woman's physical and mental health and is still practiced in Kenya including Kajiado County. We aimed to estimate the current prevalence and socio-cultural beliefs and power relations in favor or against the practice in Kajiado, Kenya.

Methods: A mixed method cross-sectional study was conducted. The study targeted: women of reproductive age; community health volunteers; opinion leaders; health care workers; officials from the ministries of Education, Health, Culture, Gender and Social Services; Community Health Assistants; Traditional Birth Attendants; Teachers; Morans and adolescent boys and girls aged 10 to 24 years. Data was collected quantitatively through a household questionnaire and qualitatively through focus group discussions and key informant interviews. Factors influencing FGM/C were classified as either social, cultural beliefs or economic.

Results: Quantitative results revealed the prevalence of FGM/C in Kajiado County was 91%, with majority (96.7%) practicing type 2 (excision) circumcision. From the interviews, FGM/C is a rite of passage to womanhood and a precursor for marriage. Girls who are uncircumcised are seen as outcasts and cannot get suitors. TBAs shun from assisting them in delivery as they believe their blood is dirty and poisonous and can cause bad omen. Additionally, girls undergo through the cut to avoid conflict and natural phenomena; for instance, drought and outbreaks of diseases. Finally, it is a practice that earns respect for the parents of the girls and benefit with incentives as dowry. TBAs who perform the cut are paid in cash and kind.

Conclusion: FGM/C practice in Kajiado County is still high. Efforts to end the practice need to have an integrated approach and inclusive. Suggested alternatives to the cut must be inclusive so as to address the myths/beliefs, misconceptions, socio-cultural and economic factors in favor of the vice. The alternatives must be inclusive for the beneficiaries, supporters and practitioners.

TUPE24

Effectiveness of hospitalwide quality improvement Initiatives to enhance standard of care and patient safety

Diogene Rurangwa¹, Edward Kamuhangire¹, Zuberi Muvunyi¹, Vincent Tihon¹ | ¹Ministry of Health, Rwanda

Issues addressed: Low quality and unsafe patient care represents a serious and considerable danger to patients in hospitals and contributes to neonatal mortality, post-surgical infections and long waiting time

Description: Following the findings of the hospital accreditation performance progressive assessments, Health data, and patient satisfaction surveys, the following issues were identified: long waiting time (8 hrs), high post-surgical infection (9.4%), birth asphyxia (5.7%) and increasing neonatal deaths (10.8%). As a solution to some of the critical findings, Ministry of Health and UBUZIMA BURAMBYE Program initiated the trainings on Strategic Problem Solving (8 steps method) to address the real root of problems. 43 hospitals were trained to identify their own priority area and develop a strategy to address them and then submit the proposal to MOH for funding. 23 best proposals were selected basing on the following criteria: Rural based, Contributing to 3 outcomes of national health policy (people-centeredness, sustainability), Benefiting several hospitals, Impact on patient safety Interventions: Trainings, equipment (Medical and IT) and infrastructure modifications.

Lessons learnt: Leadership involvement is crucial to ensure the ownership, sustainability and participation, 8-step method in QI projects leads to positive change, Need for Close monitoring, Builds management confidence in executing QI projects, Implementation and evaluation plan is a key to success

Next steps: Continue monitoring the projects up to final evaluation phase, Data collection and analysis to identify impact, Document best practices to be scaled up to other Hospitals

Conclusion: Problem solving approach led by hospital management and supported with minimal funding can lead to significant improvement of quality of care and reduce morbidity and mortality in hospitals

TUPE25

Benefits of using a standard electronic checklist to conduct laboratory quality management systems audits; **Noel Odhiambo | Amref Health Africa, Kenya**

Background: The Stepwise Laboratory Improvement Process towards Accreditation (SLIPTA) checklist measures the level of compliance with ISO 15189 requirements in a medical laboratory. A paper-based SLIPTA checklist system is conventionally used to conduct audits in Kenya. Amref through the support of Strathmore University, iLab Africa and the US Centers for Disease Control and Prevention, Kenya, piloted an electronic SLIPTA checklist (e-Checklist) in selected Ministry of Health laboratories in lower eastern and coast region.

Objectives: To evaluate the efficiency and effectiveness of using e-SLIPTA checklist system to conduct audits in terms of data quality, time taken, user friendliness and report reproducibility in comparison with the paper-based system.

Methods: The e-checklist was administered in 6 laboratories in August 2017 following a two days' workshop-based training for 6 laboratory mentors at Strathmore University by iLab Africa. The mentors used their personal laptops in conducting the audits. An online eSLIPTA portal was created with the following features: log-in page, registration page, dashboard page, audit page, reports page, charts page and export data page. Rights were provided to the mentors to access and analyze the data.

Results: A total of 6 audit reports were generated. Each audit took 4 hours to conduct using e-checklist compared to 8 hours using paper-based hence reducing the number of days for auditing in the six laboratories from 9 to 6 days. E-checklist was user friendly, quality of data generated was precise, clear and reproducible. Two out of the six mentors used offline mode option where there was no access to internet but it was not able to upload data in the system once internet was available.

Conclusion: The e-SLIPTA checklist system saves on auditing time, the quality of reports generated are precise and clear. The offline mode needed improvement for easy uploading into the system.

TUPE26

Using an innovative rapid results initiative to improve quality and accelerate laboratories towards accreditation; **Josephine Cherop | Amref Health Africa, Kenya**

Background: Rapid Results Initiative (RRI) is a structured process that enables teams to achieve tangible results over a rapid time frame to improve levels of performance. A prospective evaluation was conducted to assess the effectiveness of the process.

Methods: The laboratories were from 6 county hospitals. Targeted embedded mentorship support as per the SLMTA curriculum formatted on Plan Do Study Act (PDSA) was used for maximum support, targeting on stagnating Quality System Essentials (QSEs) and closure of nonconformities identified. Baseline, midterm and exit audits were conducted using the Stepwise Laboratory Quality Improvement Process towards Accreditation (SLIPTA) checklist and the eSLIPTA tool.

Analysis included t-test for paired samples to assess the difference in scores before and after the RRI. Data entered and analyzed using SPSS version 22.0.

Results: Mean baseline score was 56.1 while at exit was 67.6. T-test established a statistical significant difference in scoring before and after implementation of RRI ($t=-18.06$, $df=5$, $p < 0.001$)

Scores are tabulated as below:

Baseline assessment laboratory	expected score	A01	A02	A03	A04	A05	A06	Total Score	275	174/275	151/275	154/275	152/275							
		168/275	126/275					% Score	100%	63.2727	54.9091	56	55.2727							
									61.0909	45.8182			Star Rating	5	1	1	1	1	0	
Exit assessment laboratory	expected score	A01	A02	A03	A04	A05	A06	Total Score	275	165/270	202/267	174/269	183/271	203/271	170/275	% Score	100%			
		61.10%	75.60%	64.60%	67.50%	74.90%	61.80%	Star Rating	5	1	3	2	2	3	1					

Conclusion: RRI is an effective process for accelerating slow and stagnating laboratories towards accreditation. Targeted mentorships focusing on stagnating (QSEs) bore results.

TUPE27

Effectiveness of Digisomo to pass the right information on health at the household level as a Motivator to CHVs Case of Turkana and Samburu; **Duncan Ager | Amref Health Africa, Kenya**

Background: AFYA TIMIZA is a five-year USAID Kenya and East Africa (USAID/KEA) funded project that aims to increase use of quality County-Led FP/RMNCAH, nutrition and WASH services in Samburu and Turkana Counties. The project role out integrated package of services in FP/RMNCAH, Nutrition and Water, Sanitation and Hygiene through sustainable approaches and partnership. A formative assessment conducted found the level of knowledge and uptake of FP/RMNCAH services among the communities in Samburu and Turkana was low. Based on the study social and behavior change communication (SBCC) strategies for both counties were developed. Providing targeted messages that reflect the individuals' and communities' realities is key to developing interventions that are relevant and yield high impact on the health of the individuals

Objective: To scale up FP/RMNCAH/Nutrition/ WASH information dissemination through Digisomo approach methodology: Digisomo is an audio computer designed specifically for people who are underserved, it begins with; formative assessment Strategy Development to ensure effective achievement of behavior change goals, Message development of local relevant audio content to engage, inform and persuade users, and Deployment and monitoring of usage and technical support of end user.

Lessons Learnt: According to data from five CUs a total of 2,611; 785 men, 1263 lactating women and 563 pregnant women were reached with massages. Digisomo motivated CHVs, attracts attention of community to listen to messages in their local languages, Men can be easily reached by the trained CHVs. contributed to improved Uptake of health services at the health facilities.

Next steps: The Digisomo device is a good communication tool by CHVs that should be rolled out by Government of Kenya MOH as standard Minimum tool for CHV.

TUPE28

Involvement of men and traditional leaders as key decision makers for improved maternal, newborn, child and adolescent health in Samburu County, Kenya; **George Kimathi | Amref Health Africa, Kenya**

Background: In Samburu County, key health indicators on FP/RMNCAH are generally poor with skilled delivery at 29%, unmet need for FP at 21%, early childbearing among adolescent girls aged 15-19-year-old at 25.7% and only 57% of children reported as fully immunized. Gender norms and other cultural practices are barriers for access to and utilization of FP/RMNCAH. Community considers men to have a key role in decision making and Afya Timiza project is engaging men and elders using the existing structures to see if there will be an improvement in behaviour change, uptake and utilization of FP/RMNCAH services.

Objective: To address socio-cultural and gender norms that are barriers to adoption of desirable family planning, reproductive health, maternal child and adolescent health practices through men involvement.

Description: 50 villages across two sub-counties through the leadership of 50 traditional elders guided by council of elders will participate in the initial engagement. Weekly talks will be delivered by the elders at the villages and wards, monthly reviews will be conducted and feedback facilitated. This process is being endorsed by 500 elders who unanimously agree with idea to engage men in health matters. Endorsement is to be part of Kisima II declaration where men will be in the forefront to support access and utilization of FR/RMNCAH services.

Lessons Learnt: Project in partnership with the county and the elders has achieved scale by engagement of all clan elders, all age sets and all sub-counties. Involvement of men and traditional leaders as key decision makers and integration of the health agenda with existing cultural systems holds potential for adoption of desirable FP/RMNCAH practices.

TUPE29

Enhancing male engagement as a 'Tipping Point' for change in the hard to reach communities for the adoption of FP/RMNCAH, WASH and Nutrition practices in Kibish, Turkana County; **George Kimathi | Amref Health Africa, Kenya**

Issue: Gender based barriers is a major challenge to access and utilization of FP/RMNCAH, Nutrition and hygiene services in Turkana County. Turkana County, is characterized by poor indicators for FP/RMNCAH with skilled delivery at 23%, early childbearing among adolescent girls aged 15–19 years old at 20.2%, unmet need for FP is 21% and children fully immunized is 63%. Overall prevalence of acute malnutrition in Turkana County in June 20 was 31%. The objective is to enhance male engagement as a 'Tipping Point' for change' in the hard to reach Kibish Sub County for the adoption of FP/RMNCAH/ WASH and Nutrition practices

Description: Through engagement of the 10 Emurons (community overseers) each heading Adakar group (Group of Households) with approximately 40 to 100 household's, mobilization was carried out for health services through Kimormor approach (integrated model) targeting hard to reach areas of Kibish. This was facilitated through personalised approach of Emurons in Kibish as an entry point to scaling up access to services on FP/RMNCAH in Kibish. Kimormor is a Turkana word that means "all in one". Implementation of the Kimoromor initiative with support of the Emurons is an innovative integrated service delivery model for the hard to reach community Kibish Sub county.

Lessons Learnt: The Emurons endorsed FP/RMNCAH, WASH and Nutrition practices and pledged to support its implementation. The Kimormors mobilised and hosted by Emurons helped reach clients with integrated services. Involvement of males as decision makers and partnership between Traditional leaders helps to bridge the gap between the cultural and the formal health system.

TUPE30

Prevalence of under nutrition among HIV exposed infants in Tabitha clinic, Kibera; **Faith Lang'at | Amref Health Africa, Kenya**

Background: With an estimated 79,000 infants born to HIV positive mothers each year in Kenya, HIV exposed Infants (HEI) is growing population. Poor growth as a result of inadequate nutritional intake and/or increased susceptibility to infections poses an increased risk of mortality and impaired mental development. Prevalence of acute malnutrition, underweight and stunting in Kenya is 7.0%, 16.0% and 35.0% respectively. There is however, limited data on the prevalence of malnutrition among HEI in Kenya.

Objectives: To establish the prevalence of under nutrition among HEI aged 0-18 months attending eMTCT clinic at Tabitha Clinic.

Methods: Retrospective cohort study design was used. 81 out of 113 HEI files enrolled between 2013 and 2018 with at least two recorded weights and lengths either at 6 weeks, 6, 12, and 18 months were selected for data abstraction. Emergency Nutrition Assessment (ENA) for SMART was used to analyze nutrition status based on WHO 2006 growth standards.

Results: Prevalence of acute malnutrition by age based on weight-for-height z-scores was 6.3%, 1.9% and 9.4% at 6, 12, and 18 months respectively while prevalence of underweight based on weight-for-age z-scores was 10.7%, 6.7%, 13.5% and 15.6% at 6 weeks, 6, 12 and 18 months respectively. Prevalence of stunting based on height-for-age z-scores was 28.8%, 27.1%, 20.0% and 40.6% at 6 weeks, 6, 12 and 18 months respectively.

Conclusion: These results show prevalence of acute malnutrition, underweight and stunting being above Kenya prevalence for under nutrition at 18 months. Interventions focusing on complete replacement feeding for HEI and maternal nutrition during pregnancy are important and require urgent attention.

TUPE31

Accelerating Universal Health Coverage through Sanitation; **Josphat Martin Muchangi | Amref Health Africa, Kenya**

Issue: The Financial Inclusion Improves Sanitation and Health (FINISH) project is a multi-country Public Private Partnership (PPP) project that aims to facilitate access to sustainable sanitation for base of pyramid through financial inclusion. The model was developed and tested in India from 2008 and owing to its success, a similar approach contextually tailored approach has been replicated in Kenya. Additional expansion of FINISH now targets Ethiopia, Uganda, Tanzania and Bangladesh with the vision of making safe sanitation and improved health a reality for all by 2030.

Description: In Kenya, the mainstay implementation approach is Community Led Total Sanitation Plus (CLTS+). It combines demand generation for sanitation products and services, and private sector involvement in supply of construction materials to the underserved communities. The plus symbolizes sanitation financing component in the project where communities have a range of financing instruments to choose from. Combination of sanitation promotion by government, sanitation financing, and well developed sanitation supply side have directly contributed to access to quality sanitation. Currently, the project has contributed to construction over 29,000 toilets of which 6,731 are financed by loans. In addition the project has attracted €6.5Million in loans to households and sanitation businesses. A vibrant sanitation market has equally emerged attracting 68 fully fledged sanitation businesses. Cross sectional analysis of diarrhea prevalence in Busia show a steady decline since the project inception.

Lesson Learnt: Universal sanitation coverage directly contributes to reduction of diarrhea diseases contributing directly to the aspirations of universal sanitation coverage. Pro-poor sanitation financing through various financing instruments has shown promising results towards reducing diarrhea which accounts for significant proportion of child morbidities and mortalities. This paper recommends mainstreaming of universal sanitation into universal health coverage to maximize outcomes of otherwise the two parallel effort

TUPE32

Providers' perceptions of person-centered maternity care in their facilities and barriers to providing it: a mixed methods study in Kenya; **Patience Afulani | University of California, San Francisco**

Background: Person-centered maternity care (PCMC) is now recognized as key to improving maternal and neonatal health outcomes, based on growing research on women's birth experiences. Fewer studies examine providers' perceptions. We aimed to examine providers' perceptions of PCMC provided in their facilities as well as the barriers to providing it.

Methods: Data are from a mixed methods study in Migori County in Western Kenya with 49 maternity providers (32 clinical and 17 non-clinical). Providers were asked structured questions on various aspects of PCMC provided in their facility and followed by open ended "why" questions.

Results: Most providers reported women were often treated with dignity and respect, given information, and supported in their facilities. Some, however, reported incidences of disrespect and abuse, poor communication, lack of respect for women's autonomy, and non-supportive care. For example, 53% and 37% of providers reported that they had seen other providers verbally or physically abusing women respectively, and 45% and 35% respectively said they had done it themselves. Sixteen percent reported women were usually not asked permission before examinations and procedures, and 37% said women were never given a preference for their birthing position.

Providers were more likely to report poor care provided by others than by themselves. Sometimes there was a disconnect in what providers thought was important and what they actually did. Themes arising from the reasons for poor PCMC included: high work load and stress, uncooperative and difficult patients, forgetfulness, facility culture, assumptions about patients' knowledge and expectations, balancing recommendations against the realities of their settings, misconceptions of what was important, self-protection, and favoritism.

Conclusions: Most providers recognize the importance of various aspects of PCMC, but they don't often provide it for various reasons. To improve PCMC, we need to address the different factors that affect providers' interactions with patients.

TUPE33

Community Follow up of HIV Exposed Infants missing Essential HIV diagnostic steps in Rubirizi; **Michael Owor¹, Kapsandui Tonny¹, Patrick Kagurusi¹ | ¹Amref Health, Uganda**

Background: Experience in community follow up of HIV Exposed Infants (HEI) missing essential HIV diagnostic steps in hard to reach-sub counties of Rubirizi district.

Methods: Through review of individual client records at representative health facilities in Bunyaruguru and katerera sub county (June-July 2018), Line listing of HIE infants who missed HIV diagnostic steps was done. Appointments where possible were made through phone calls to care givers. Village Health Teams (VHT) provided guidance for home identification during the visits. Sample collection, storage and referral to National diagnostic Centre was done by a laboratory technician. Psychosocial issues assessment and counselling was done by a counsellor or nurse. Outcomes were, i) HIE due for DNA PCR 1, ii) HIE infants who due for DNA PCR 2, iii) HIE due for HIV Rapid test, and iv) Mortality. Qualitative data was collected through observation, testimonies of the teams that conducted the home visits.

Results: A total of 102, HIE infants were identified. Twenty-seven (27%) were identified in Rugazi, and 75(74%) in Katerera. Fourteen in Rugazi (52%) were due for second DNA PCR and while 5(35%) were not traceable. In Katerera 53(71%) were visited, 11(20.1%) were due for second sample collection. Eighteen (34%) were due for first DNA PCR, and 24(45%) were due for their rapid HIV test. Non-identification of HIE was attributable to provided wrong addresses, stigma, non-disclosure, changing places of residence, use of different identity names.

Conclusion: Home visits to ascertain HIV exposure status outcome is a viable strategy in hard to reach areas, but remains outwitted by mothers using wrong addresses, stigma, nondisclosure, changing of residence and use of different identities among young mothers.

TUPE34

Improving Quality of Antenatal care (ANC) services at Rugaaga HCIV, Isingiro District; **Mwesigye Bernard¹, Mugerwa Enoch², Ndagire Kisakye Gloria¹, Kajungu Clemmy² |**

1Amref Health Africa, Uganda, 2Isingiro district Local government, Uganda

Background: Institutional perinatal mortality rate in Isingiro district was 16 per 100,000 deliveries in 2017 above the regional average of 14. Syphilis in pregnancy is known to contribute to intrauterine fetal deaths and can be transmitted vertically to the fetus causing neonatal syphilis. Despite being an important component of quality ANC services, Syphilis screening among pregnant women at Rugaaga health center IV has remained a challenge. We describe our learning experience in strengthening screening for syphilis at Rugaaga HC IV.

Methods: Between January and March 2018, no pregnant mother was screened for syphilis at Rugaaga HC IV and hence no diagnosis of syphilis in pregnancy was made. In April 2018, the USAID RHITES SW project team conducted a root cause analysis revealing significant knowledge gaps on the importance of syphilis screening in pregnancy and appreciation of its role as a common cause of intrauterine fetal deaths. Consequently, the available limited stocks of syphilis test kits were reserved for use in the outpatient department. USAID RHITES SW team and the District Maternal health focal person conducted continuous support supervision and capacity building through site level mentorships highlighting the complications of syphilis in Pregnancy and supporting the maternity and laboratory facility team to prioritize and institutionalize syphilis screening.

Results: There has been a 267% increase in the number of pregnant women screened for Syphilis at Rugaaga HCIV from 18 in April 2018 (7.8% of all ANC attendances) to 66 in August 2018 (22% of all ANC attendances) with 3 positive cases identified and managed appropriately. Main challenge identified is limited stock of the test kits.

Conclusion: Limited provider appreciation of the importance of delivering critical service components negatively affects implementation. Capacity building and orientation through mentorships coupled with consistent availability of supplies results in improved service delivery and uptake as per recommendations.

TUPE35

Improve efficiency in testing through Psmart technology; **Winfred Nzioka | Amref Health Africa, Kenya**

Issue: The clock is steadily ticking towards 2020 when the UNAIDS 90-90-90 global target in the fight against HIV/AIDS is hoped to be achieved. Among children, 90% of infections occur through maternal to child transmission; as such, once HIV status is ascertained, children do not need to be tested subsequently unless they are exposed again. Located at largest slums in Africa, Kibera Health Centre conducts a total of 16936 HIV tests annually, Children constitute 2358 (13.9%), yet yield accumulate to less than 1%. A percentage of these HIV tests are unnecessary and can be avoided with support of technology if the provider has access to information on the HIV testing history. PSmart, which stands for Pediatric Smart Card, is a system designed to store the testing history and subsequent health care received by pediatric patients in an outpatient setting. It is issued to pediatric clients at the HTs service and is produced at all subsequent visits, the information is accessible to all HTS providers' networks. The objective is to reduce unnecessary HIV retesting by health care workers across health facilities resulting in improved efficiencies.

Description: To address this concern, Psmart is issued to pediatric <14years at the point of receiving HTS service and is produced at all subsequent clinical visits, making it available to all the facilities and across all the HTS providers' networks.

Lesson learnt: Patient waiting time has drastically reduced to less than 2minutes depending with the queue. PSmart has Minimized unnecessary HIV retesting hence improve efficiency in health care. Improve accuracy in unique clients' identification and information sharing across health providers.

Next steps: Scale up to other supported sites, focusing on targeted testing hence having verifiable data.

TUPE36

Use of a community score card to improve accountability in primary health care: Lessons from Ethiopia; **Abera Aklilu¹, Ayde, Assefa¹, Benyam, Tibebe¹, Ali, Nasir¹, Fetene, Netsanet¹ | ¹Yale Global Health Leadership Institute, Ethiopia**

Issue: Efforts to engage communities in a shared ownership of primary health care (PHC) services are being implemented with varying degrees of success. One common challenge is the lack of tool for capturing community feedback in measurable and actionable ways which limits problem-solving by PHC facility managers and stakeholders. A community score card (CSC) is a community-led governance tool used by primary health care facilities local government structures, and the community to promote accountability for service quality.

Description: This paper presents the experience of CSC implementation in Legambo woreda, Amhara Region, Ethiopia as an example of the full cycle of a CSC process. A cluster of 30 households were selected from each kebele. These household heads (average 120 from 5 kebeles) reflected on services provided by the local PHC facility on a quarterly basis. CSC indicators included: Caring, respectful and compassionate care, waiting time, availability of medicines and supplies, infrastructure and management of ambulance services and cleanliness and sanitation of health facilities. The PHC facilities management and governance team received feedback from the community representatives based on CSC findings, and developed and implemented action items to respond to community needs and grievances.

Lessons Learnt: Over 1 year of implementation in Legambo woreda, positive perceptions of service quality as measured by the CSC increased from 38% to 78%. Actions taken by facility managers in response to community feedback highlighted meaningful decisions within available resources included: improving budget allocation for medicine, procurement of an additional ambulance, and strengthening the waste management system.

Next step: Based on this experience, each region in Ethiopia will strengthen the full cycle CSC implementation throughout PHC facilities.

Key Words: Community score card, primary health care quality, accountability.

TUPE37

Improving timely attendance of antenatal care (ANC1) at Kihihi Health Centre IV in Kanungu District, Uganda; **Sekimpi Robert Harrison¹, Kesiime Dina², Mushabenta Jennifer², Kebirungyi Aisha², Tonny Kapsandui² | ¹Amref Health Africa, Uganda, ²Kanungu district, Uganda**

Issue: Kihihi HC IV is a public Health Centre IV located in Kihihi town council, kinkizi west Health sub district, Kanungu District, Kihihi H C IV early ANC 1 attendance has been stagnating at around 31% yet the ministry of health target is at 100%. Improvement goal: To improve early ANC1 timely from 31% in October 2016 to 80%in April 2017 at Kihihi HCIV in Kanungu district.

Description: Formed a work improvement team (WIT) then started QI project, tested changes done were; CME on early ANC attendance, mentorship in Focused Antenatal care (FANC), monthly data review, dialogue meetings, internal facility referral. In October the WIT was formed, In November the team met to review data also had mentorships in FANC, during that time we stratified visits ANC1-4 each on its visit day with every visit with its special package, January after the Christmas break led to decline, In February the facility started dialogue meetings where the facility team moved to the community to conduct sensitization, reaching out to men in the community, early ANC messaging. The percentage of early ANC1 started at 34% in October 2016, increased to 37% in November, 53% in December, reduced to 46% in January, then increased to 73% in February then leveled at around 81% in April 2017.

Lessons Learned: When midwives are mentored they get new skills such as stratification of ANC according to visit days, community dialogue sensitize male about their women on the early ANC1 attendance and internal referral assist when a mother diagnosed in general ward is referred to Maternity for early ANC1. Midwives need to form WITs, mentored in FANC, strengthen internal facility referral and conduct community dialogue meeting to reach out to men, community.

TUPE38

Reorienting traditional birth attendants to become skilled delivery advocates; **Charles Opiyo | Christian Aid, Kenya**

Issue: 40% Of teenage pregnancies occur in Sub-Saharan Africa (Heidi et al., 2006). Adolescent girls and young women continue to face challenges in accessing reproductive health services. While they have the same reproductive rights as adult women, they face obstacles due to their age, access to resources, stigma and weak support systems. Narok County has the highest number of teenage pregnancy at 40% while nationally it is 18% Christian Aid designed an innovative MNCH programme targeting teenage girls in Narok County. The adolescent girls and young women deliver at home largely due to stigma emanating from negative cultural beliefs.

Description: A safe space delivery model targeting Adolescent Girls and Young Women (AGYW) aged 15–19 years. The focus is to promote a continuum of care in RMNCH for adolescent girls and young women. TBAs are reoriented as mother companions and skilled delivery advocates, challenging negative social norms to ensure that adolescent girls are referred to health facilities for skilled delivery. The capacity of the health service providers is also built to provide youth friendly services.

Lessons Learnt: Based on routine data collected, Family Planning uptake by adolescent girls has increased from 56 at baseline to 236 in six months. Access to ANC has increased from 416 to 465. Skilled deliveries have improved from 74 at baseline to 114 in the first quarter to 147 in the second quarter. The PNC uptake has improved from 22 to 301 by second quarter. These can be attributed to the role of reoriented TBAs as skilled delivery champions.

Next steps

Community sensitizations on the value of skilled care and to address the retrogressive cultural norms. Incorporate messaging on prevention of teenage pregnancies in the project. Include messaging on nutrition for pregnant and lactating girls. Document project approach for possible learning and scale up

TUPE39

Communication dynamics in sexual abuse cases: a case study of Makadara, Nairobi County; **Mitchell Nyamai | KCB Bank, Kenya**

Background: Long a taboo for open discussion, rape is considered a social stigma in Kenya. There are compelling reasons a survivor of sexual abuse may not communicate her experiences. First, she may be afraid of being subjected to social stigma. Secondly, she may fear retaliation from the perpetrator. Additionally, she may fear that she will not be believed. Therefore, the survivor will make calculated decisions about disclosing; she will consider who she will tell and whether she will be believed. No two rape situations are same and likewise no two experiences of rape are the same for any two survivors. Therefore, this study aimed to explore how survivors of sexual abuse communicated their experiences which were imperative to inform further research on communication around culturally sensitive topics.

Objectives: The study objectives were: to identify confidants sexual assault survivors' disclosed to; to find out impacts of disclosure; to investigate social perceptions and attitudes towards sexual violence, the survivors and the perpetrators.

Methods: The study design employed was qualitative approach which utilized case study method. The study population was sexually abused females between the ages of 18 -50 years, with a sample size of 12 key informants. Non – probability sampling strategy technique used was purposive sampling. Data was generated through use of semi structured interviews and observation. Data was analyzed thematically. Trustworthiness of the study was achieved through credibility, and reliability. Main ethical issues observed were anonymity and confidentiality.

Results: The study found out that communication process consisted of the factors that contributed to whether a disclosure was made, the disclosure itself, and the after effects of the disclosure. Thus, disclosure appeared to be very complex and was influenced by the survivor's characteristics, her family environment and the community in which she lived.

TUPE40

Exploring peer educators experience in Sexual Reproductive Health and Rights Project in Handeni District; **Aisha Byanaku | Amref Health Africa, Tanzania**

Background: Handeni district in Tanga Region was the area for implementation of the project that involved training of peer educators by Amref Health Africa. The project was driven by the fact that the district has a good proportion of population that led a nomadic life and in that case making their access to education on sexuality, reproductive health and rights limited. In the same district practice of multiple sexual partners among young people was of concern and most of them lacking education on sexual reproductive health and rights.

Methods: The survey was conducted in six wards of Handeni District to assess the peer educators involved in the Kijana wa Leo project. The assessment was on their knowledge, lesson learned and challenges faced during the time of working as peer educators. The survey used qualitative research method and six Focus Group Discussions were carried out, three with in school participants and the other three with out of school participants who were selected from the 30 villages in the survey area. A total of 12 in depth interviews conducted, six with in school interviewees and the remaining six with out of school participants.

Results: All the peer educators joined the project voluntarily and they were interested to work as peer educators due to various reasons including assisting their age mates on issues like sexually transmitted diseases, HIV, early and school pregnant. Few challenges observed including being under graded by their community members, lack of training materials and shortage of some methods for family planning in health facilities were mentioned.

Conclusion/Recommendations

The participants were able to provide recommendation for the betterment of the project and these included conducting frequency meetings, provision of posters and leaflets.

Key words: Amref, Handeni, peer educators, focus group discussions, in depth interviews.

TUPE41

A model for promoting healthy living through primary school communities in Kenya; **Catherine Karekezi¹, Jens Aagaard-Hansen², Sara Irungu¹, Isabella Musyoka Kamere³, Francis Kirimi Kiara³, James Elijah Otiende³** | ¹Kenya Diabetes Management and Information Centre, Kenya, ²Steno Diabetes Center, Copenhagen, ³Kenyatta University, Kenya

Issue: Kenya faces an increasing burden of non-communicable diseases (NCDs) which, if left unchecked, threatens the attainment of Universal Health Coverage and the Sustainable Development Goals. Lack of awareness of NCDs coupled with cultural and social factors create a barrier to accessing health services resulting in delayed detection, diagnosis and poor outcomes. Many NCDs can be prevented by cost-effective lifestyle changes especially those targeted at children and adolescents. Health promotion can avert NCDs by empowering communities on healthy living and risk factor management.

Description: Primary schools encompass socio-economic, religious, cultural, and rural urban diversity and provide an entry point for preventive health services in the community. The Promoting Healthy Living (PHL) Model is a primary school health promotion intervention for long-term prevention of NCDs. It is based on a three-year project Promoting Healthy Living through Schools implemented in Kenyan primary schools. The intervention focuses on healthy eating and physical activity as key variables for healthy living and uses the whole school community as community behaviour change agents. PHL is based on educational principles and concrete tools such as curricula; is adapted to local priorities and contexts; emphasizes genuine participation and ownership by the whole school community; and is fun-filled, inclusive, innovative and interactive. It promotes changes in individual's knowledge, competences, empowerment and local environment.

Lessons learnt: The long-term purpose of PHL is to ensure that children remain healthy and avoid NCDs during their adult life. Healthy active pupils also learn better. Empowered pupils are effective behaviour change agents promoting NCD prevention in the community. PHL is for everyone irrespective of age, gender, ethnicity or religion.

Next steps : Advocate for mainstreaming of NCDs in the primary school curriculum. The Model may be used in other African countries provided it is adapted to local needs and priorities.

TUPE42

A quality improvement project to improve partogram completeness by healthcare workers in maternity ward of Byumba District Hospital in Rwanda; **Lauben Rubega | University of Rwanda, Rwanda**

Background: The partogram incompleteness reported to be one of the major barriers inhibiting provision of quality healthcare to pregnant mothers during delivery in many Rwandan healthcare facilities. The study aimed to increase the overall completeness of partograms in Byumba District Hospital of Rwanda.

Method: Prior intervention, a sample of 200 partograms of normal deliveries was randomly selected and audited from total of 341 and 200 were also selected from 328 partograms after intervention. The completeness of the partogram in this health facility was successfully implemented with the use of strategic problem solving approach.

Results: The rate of completeness in four out of five parts of partogram increased as follows; identification, 54% to 90% with $P<0.000$, foetal, 192 to 200 with $P<0.004$ and maternal, 96.5% to 99% with $P<0.0321$. The overall completeness rate increased considerably from 15% to 90% with $P<0.000$ and was statistically significant.

Conclusion: The intervention included recruitment of two more staff, purchasing extra three electronic blood pressure machines, four thermometers and establishment of supervision plan. It was strongly recommended that the Hospital Management should ensure continuity and sustainability of the project by supervising completeness of partogram.

Key words: Completeness, partogram, Maternity department, labor monitoring, Byumba District Hospital.

TUPE43

PRECIS: An E-learning solution of improving human resources for health in Senegal; **Mabator Ndiaye | Amref Health Africa, Senegal**

Background: Upgrading of nurses and midwives trained before 2009 still enormous challenge in Senegal, posing the dilemma of addressing training need without stripping the health structures to be trained in the only existing nursing and midwifery public school. Facing this, Amref Health Africa, initiated an ambitious and innovative program called PRECIS which is an e-learning program for nurses and midwives towards health system strengthening and improving of health coverage and implemented in the 14 regions of Senegal and in Côte d'Ivoire.

Description: PRECIS integrates the health system at its different levels involving the key stakeholders across the country. The implementation comes after a feasibility assessment followed by an implantation phase that allows realization of whole arrangements regarding management, designing of digital resources and equipments. The Teaching Program goes via an Elearning Platform preceded by training of teachers, tutors and students. Local and national face to face are organized to ensure proximally follow up and usual updates. Integrated formative supervision and national face to face are regularly carried out by joint Amref and MSAS missions to ensure close monitoring and certification exams.

Results: -14 e-learning centers set up -Upgrading of 165 certified in pilot phase, 261 in 2nd cohort, 450 in 3rd cohort and 450 currently in training - Successing of have been able to train in the 76 Senegal Health Districts first line health without stripping the health structures.

Conclusion: While raising technical level of nurses and midwives, the PRECIS really valued health workers by giving them the opportunity to be reclassified into the public service by moving from category B4 to B1, thus improving their socio-economic conditions.

TUPE44

Factor affecting community response towards the construction of community latrines in remote village of Post Conflict Region of Northern Uganda using Community Led Total Sanitation (CLTS) approach: a case Study of remote community of Paminaporo in Amuru District Northern Uganda; **Kinyera Stephen¹, Hajra Mukasa¹, Mtwalib Walude¹ | ¹Amref Health Africa, Uganda**

Issue: Community Led Total Sanitation (CLTS) is an innovative methodology for mobilizing communities to completely eliminate open defecation (OD) Communities are facilitated to conduct their own appraisal and analysis of open defecation (OD) and take their own action to become ODF (open defecation free) by either constructing their own latrines or by sharing the existing latrines to avoid open defecation, in Amuru District over 28% of the rural communities still defecate in the open land with latrine coverage of 72% (AHSPR, 2014/15), in the remote village of Paminaporo latrines coverage were 7% compare to 93% communities were still going to the bush to defecates.

Description: Working with district health teams through support supervision and using CLTS data collected from the field of the studied area, ODF was sported as of high percentage in the community compare to the percentage of the District. A process involve community led total sanitation by triggering the community using safe drinking water and contaminated water with feaces and bread for demonstration of eating food with contaminated water. Using documentation reports from the District and baselines survey done by consultant health workers set target baseline and tracked progress of their projects from March 2017 to November 2017. The activities implemented included engagement of Health workers, VHTS, local leaders in the monthly following up completed latrines and uncompleted latrines, through comprehensive meetings with the community leaders and imposing bye laws increases Latrines and hand washing facilities.

Lessons Learnt: The results indicated improvement in number of latrines in the area from 7% to 98% in the last few months in Paminaporo Community.

Next Steps: Engagement of health workers and Local leaders using clts improve low latrines coverage and solution development to discourage open defecation with hand washing facilities as preventive measures for infection and creating effective documentation

TUPE45

Community management of drug resistant TB is working in Isiolo County, a hard to reach region in Kenya; **John Ng'ang'a¹, Frank Marangu¹, Giro Tutu¹, Lorraine N Mugambi¹, Benson Ulo¹ | ¹Amref Health Africa, Kenya**

Background: Isiolo County is one of the hard to reach regions in Kenya located in the North Eastern part of the country. Control of communicable diseases like Tuberculosis pose major challenges in hard to reach area due to a myriad of challenges including, poor infrastructure, insecurity, malnutrition, ignorant among others.

Methods: Longitudinal and Continuous Surveillance of DR TB among all retreatment patients, return after default and the new cases who do not respond to the first line treatment was done. All patients identified with Drug Resistant Tuberculosis were started on treatment and managed in community-based set up with frequent visits to the health facility. Home visits were carried out by the Community Health volunteers and occasionally by Health Care Workers. The patients were review on a monthly basis by a multidisciplinary team. Clinical and Bacteriological parameters monitored till completion of treatment.

Results: Fifteen patients were diagnosed with drug resistant TB and started on treatment between year 2013 and 2016 in community-based set up. Over half of them 8 (53%) were females.

Majority 12 (73%) had previously been treated for drug sensitive TB while 4 (27%) had primary resistant TB. Eight (53%) were HIV positive. Twelve patients (80%) have since completed treatment with majority 9(75%) being cured, 3 (25%) completed treated. The Treatment Success rate was 100%.

Conclusion: Treatment success rate of 100% was achieved. It is possible to manage Drug Resistant TB in hard to reach areas with great success but a lot of technical and logistical support is paramount.

TUPE46

Acceptability, barriers, and enabling factors influencing the uptake of modern contraceptives provided by Living Goods (LG) in Mpigi district and Kawempe division, Uganda; **Emilie Chambert¹, Peter Kaddu¹, Grace Nakibaala¹, Nathan Tumuhameye¹ | ¹Living Goods, Uganda**

Background: Uganda has one of the highest population growth rates in the world. Modern contraceptive prevalence in Uganda is 24.4% of women of reproductive age and unmet need was 46.9% in 2016. We have leveraged our Living Goods Community Health Platform to provide family planning (FP) services to women in need, contributing to the LG child mortality and stunting reduction goal. The objective is to test a comprehensive FP strategy and referrals for long-term methods.

Method: LG leveraged community health workers (CHWs) to provide FP services to women in need. The experiment commenced in May and June 2017 in Bwaise and Mpigi counties with trained CHWs, who rolled out FP services, including counseling, Sayana Press, emergency contraceptive pill (ECP), progesterone only pill (POP), and condoms. Women interested in other modern methods were referred to health facilities. CHWs conducted different visits to potential women.

Results: Uptake rates with naïve and previous users were positive, as were continuation rates with those followed up by CHWs. 52% of naïve users took up a method at first visit, while 65% of previous users took up a method after CHW counsel. Of those followed up, only 37% discontinued and of those remaining, 73% refilled existing methods and 27% switched to a new method. 81% of recently pregnant women took up FP, with 71% receiving their method from the CHW. Findings indicated that basic training and tools provided to CHWs allowed them to deliver FP services to their communities immediately.

Conclusion: Overall, FP was widely accepted in the community as a CHW-delivered service, thus CHWs can greatly improve FP uptake.

TUPE47

Health care quality improvement assessment in four developing regions of Ethiopia; **Aklilu Yeshitla | Amref Health Africa, Ethiopia**

Background: Four pastoralist regions of Ethiopia (Afar, Benishangul-Gumuz, Gambella, Somali) have the country's worst maternal, neonatal and child health/family planning (MNCH/FP) indicators. USAID-supported Transform: Health in Developing Regions (T-HDR) project, led by Amref, is working with the Federal Ministry of Health to drive large-scale improvements in MNCH/FP clinical performance including access, utilization and quality of care. IntraHealth International, a T-HDR partner, led a baseline assessment to determine MNCH/FP service availability, quality, infrastructure needs, and health worker knowledge at health facilities in the regions.

Methods: A descriptive cross-sectional survey was employed from June–August 2018 using three data collection methods: 1) medical record review, 2) interviews with health workers and mothers, 3) observations through semi-structured questionnaires. 58 facilities and 232 providers from hospitals (6) and health centers (58) were selected using purposive sampling. Using simple random sampling, 580 medical records were reviewed to determine provision of care and use of national recommended standards.

Results: Only 37% of Health Centers (HCs) are practicing BEmONC signals in four regions and 48% of HCs used partographs routinely. Only 17% of hospitals provide gender-based violence services. Routine infection prevention measures are practiced in 86% of facilities: 74% HCs; 98% hospitals. 48% of HCs lacked continuous water supply and 67% of HCs lacked access to electricity (including generators). Only 6% of HCs apply quality improvement processes; 17% of hospitals have functional quality improvement teams. Providers lack sufficient knowledge of postpartum hemorrhage, eclampsia management, and treatment of newborn sepsis, despite reporting they had this knowledge.

Conclusion and Recommendations: T-HDR is using these findings to strengthen continuous MNCH/FP services. Regional health bureaus and hospitals need supportive supervision and catchment-based mentorship to improve knowledge and skills of providers and application of national protocols for service quality. Multi-stakeholder collaboration and commitment among bureaus and other government sectors is required for allocation of needed resources.

TUPE48

Exploring barriers to quality of care in South African Midwifery Obstetric Units: The perspective of nurses and midwives; **Jessica Dutton¹, Lucia Knight¹ | ¹University of Western Cape, South Africa**

Background: Improving quality of care through a respectful patient-centered approach has become a recent focus within maternal health care in low and middle-income countries. This research explores barriers to quality of care in South African maternal health facilities existing at both systemic and individual levels. The perspective of midwives, which is lacking in much of the literature on quality of care in maternal health, is fundamental as they carry much of the responsibility of implementing change.

Methods: South African midwifery obstetric units (MOUs) are midwifery run health facilities that are comprised of an antenatal clinic, labour ward, and postpartum care for women and newborns. They are accessible free of charge. This research is based on in-depth interviews with nurses and midwives and observations at three MOUs. I have applied grounded theory to analyze the data to better understand the barriers to quality of maternal health care from the perspective of nurses and midwives.

Results: Findings from this study show that barriers to quality of care take form in complex and interrelated ways. From the physical structure of the MOU and human resource shortages to personal attitudes about midwifery and disrespectful treatment towards patients, an environment that impedes high quality care is created and maintained.

Conclusion: This study offers an innovative approach to tackling barriers to quality care within the constraints of an under resourced health system. Implementing existing innovations, new technologies, policy development, and operationalizing the WHO framework for the quality of maternal healthcare are areas of interest this research has explored.

TUPE49

Effectiveness of “Kimormor” concept on maternal and child health outcomes among pastoral communities Case of Kibish Sub County, Turkana County; **Anthony Arasio | Amref Health Africa, Kenya**

Background: Access to health is a universal human right. Over the years the Kenyan government and development partners have invested in health interventions in the pastoral communities of Turkana. Despite these interventions, most health indicators in the county remain below national averages. To reverse this trend, the health partners have to rethink unique strategy that will respond to the needs of the pastoral communities. This study sought to evaluate effectiveness of an innovative multi sectoral approach called Kimormor concept on maternal and child health (MNCH) outcomes among pastoral communities in Kibish Sub County.

Method: The study used Interrupted Time Series Design with Comparison Group (ITSCG) with nine (9) points of observation before and after the intervention. The comparison group was as similar as possible to the experimental group. Repeated measurement points were equally spaced one month apart. Target groups were pregnant women with children aged 12-23 months. The Auto-Regressive Integrated Moving Average (ARIMA) modeling statistical method was used for analysis.

Results: Through implementation of Kimormor strategy from September 2017 to August 2018, new Ante Natal Care (ANC) visits increased from 1,313 to 2,489 accounting 90% increase. Those who completed the recommended 4 Ante Natal Care (ANC) visits improved from 274 to 627 accounting 129% increase. Skilled birth attendance rose from 395 to 648 representing 64% improvement. Fully Immunized Children moved from 487 to 857 representing an increase of 76%.

Conclusion: Implementation of Kimormor approach contributed to an improvement in uptake of MNCH services in the resource constrained pastoral communities of Kibish sub county. For this change to be realized, commitment from county government is critical. In order to increase the utilization of MNCH services among the pastoral communities, there is need for the County Government to adopt the Kimormor approach for delivery of health care services for the nomadic communities.

TUPE50

Using multiple innovative strategies to improve IPTp2 utilization among pregnant women; A case of Kabale district Local Government, Uganda; **Odong Michael Kidega | Amref Health Africa, Uganda**

Background: Ministry of Health recommends that pregnant women receive at least two doses of IPTp to prevent the effects of malaria. However, in Kabale there was low utilization of IPTp among pregnant women at 47% compared to the national target of 86%. The district QI team set out to increase IPT2 utilization from 47% to 85 %.

Methods: Using a QI approach, a root cause analysis was performed and interventions developed to improve IPTP performance. These included stock checking during regular support supervision, redistribution of excess stock of SP, monthly data reviews, and distribution metallic cups for DOTS. On a monthly basis, data would be reviewed to track performance and employ corrective measures.

Results; IPTp utilization among pregnant women in the district increased from 47% to 86% above the national target of 85% as illustrated in the graph below.

Conclusion: Data use to direct critical IPTp interventions results in performance improvement and need to be strengthened.

TUPE51

Health Systems Partnership Approach, A Compendium of Efforts to Inform Health Policy: A case of Amref Advocacy Project in Eastern and Southern Uganda; **Edward Tibawala¹, James Teba¹, Lilian Kmanzi Mugisha¹ | ¹Amref Health Africa, Uganda**

Issue: Over the past years, Uganda has made significant progress in improving the health of its citizens. Yet, communities face challenges in accessing health service. To address these barriers, it's essential that leaders from government and health institutions are informed to shape decisions in policy and programming, and maximize resources required to provide high-quality healthcare. There is need to often initiate advocacy efforts to improve community health. Amref's Health Systems Advocacy project therefore seeks to contribute towards policy influencing to improve Human Resources for Health and availability and access to SRH commodities in the country.

Description: Amref Advocacy Partnership project embraced a multilevel engagement of health care actors and stakeholders to identify, plan and advocate for allocation and equitable resource distribution. The project identified 6 community-based civil society organizations (CSOs) with proven advocacy experience from the 6 collaborating districts. Periodically, the CSOs submit assessment reports on the status of reproductive health services and commodities, in-service and migratory human resources for health. District and national stakeholders including policy influencers are engaged henceforth. As a result, district-level citizen coalition dialogues, media excursions on SRH were held. Project contributed to a symposium on CHEWs, conducted orientation meeting with parliamentary committee on health, radio talk shows and facilitated printing patient's charter.

Lessons learnt: Collaborative efforts between various health system actors are required for effective health policies.

Next step: Engage with ministry of health for accreditation and dissemination of CHEWs tools.

TUPE52

Application of social behavior change community mobilization towards addressing barriers of access to health; **Harrison Ayallo | Stowelink, Kenya**

Background: In the African context, harmful cultural and religious practices are the major barrier of access to universal health coverage. At equal measures these factors has resulted to poor health access to men and women. In some African community traditional practices and beliefs are still deeply rooted hindering and denying its member opportunity to access better health care.

Methods: A cohort of 450 was used in Save a Life Save a World project. This project was conducted in Kisumu Kenya for 6 months. This is the second largest slum in Kenya - Nyallenda Slums and for obvious reasons faces health challenges. A baseline interview and focus group discussion was carried before a local theater group was formed. The data was called during those interviews alongside administration of questionnaires. The theater group was then followed prospectively to determine the outcome.

Results: It was established that 40% of women and 35% of men were still practicing traditional belief and associated ill health as a curse and witchcraft. They believed that Good health come from God. They prohibited some types of food. With 30% of pregnant women still giving birth at home. Other hand, through the formation of a local theater group, which engaged community leaders to deliver health related messages, provided training and support to develop message and building a cadre of professionals capable of using social media to address health issues. It was observed that 65% of the community changed their attitude and started utilizing local health service.

Conclusion: Save a life save a world project engaged civil society and community organizations to promote social norms that support collective health objectives and challenge harmful cultural and religious practices. To achieve universal health coverage all individuals, families, communities, media outlet and government and NGO partners must commit to a constructive and well-coordinated community mobilization

Key words: Save A life, Save A world Project, social behavior change, traditions, belief

TUPE53

The burden of intrahousehold dual forms of malnutrition in low and middle-income countries: understanding shaping determinants.

Eric Twizeyimana | University of Rwanda, Rwanda

Background: Nearly 30% of humanity in the developing world—are currently suffering from one or more of the multiple forms of malnutrition. At the same time, a massive global epidemic of obesity is emerging and more than half the adult population is affected in some countries. DFM (Dual forms of malnutrition) reflects the dual burden of overnutrition and undernutrition within a single household. The objective was to assess the determinants and factors that increase the dual burden of malnutrition in the same household.

Method: A systematic literature search of recent publications related to DFM, intrahousehold malnutrition, food distribution in the same household, low and middle-income countries and intrahousehold allocation of resources was done. Pubmed, NCBI and Scholarly articles were searched to find those published since the last 10 years. 17 out of 21 articles were selected based on having adequate population and whether they aimed at studying the trends of malnutrition in the household. Descriptive statistics were used to analyze the data.

Results: DFM has been associated with higher Socio-economic status, household wealth, income, and Gross domestic product and socio-demographic characteristics such as family size, age difference between the underweight and overweight members, maternal support, urban residency and an unequal food distribution. DFM was significantly higher in the households with mothers receiving high food allocation, consuming more carbohydrates and children receiving less macro nutrients. Gender differences affect the distribution of resources between men and women.

Conclusion and Recommendation: The results demonstrate that nutritional education is very important to increase awareness of the impact of DFM. Dietary changes related to the nutrition transition may have different, negative impacts on children and women. We recommend a multidisciplinary approach that addresses malnutrition as a single phenomenon and encourage health professionals to provide nutritional advice targeting households rather than individuals, focusing on improvement of dietary diversity and not energy intake alone.

TUPE54

Innovation, partnerships and business models: A case study of a blood management system in Kenya; **Elizabeth Wala | Amref Health Africa, Kenya**

Issue: Three critical ingredients to ensure implementation of SDG 3: delivering innovative digital health technologies and services appropriate for low resource settings; partnerships, which are instrumental to the implementation of the new sustainable development agenda, to achieve scale and improve efficiency; and putting in place new financing and business models based on shared-values. Blood is key to effective healthcare delivery as it is central to saving lives.

Description: As Kenya seeks to attain universal health coverage for all citizens by 2022, there is a great need to incorporate technology to catalyse this process. One such area is in management of blood services. Damu - Sasa was developed by Advanced IT Solutions Limited to maintain an up to date information in the blood services value chain. The solution is an innovation by team of young people incubated by the Presidential Digital Talent Programme. Amref Health Africa provides a broad range of services designed to strengthen health systems towards attainment of the Sustainable Development Goals by supporting training, health service delivery and healthcare financing to deliver health services responsive to local health needs. Amref and AISL signed a partnership to scale up blood availability in hospitals through Damu - Sasa.

Lessons Learnt: Sharing risk and responsibility with the partner judiciously; Transparency is priority; Measure progress against the objectives; A skilled team at the center makes a difference; Remain committed when your focus changes; The collaboration needs to remain agile and effective. Healthcare innovation partnerships can make a huge difference in the way health services are delivered to the community. By promoting efficient distribution of data and enhancing the ability to combine resources to gain a deeper perspective into these issues, such partnerships can play a major role to in furthering medical advancements.

TUPE55

Contribution to Universal Health Coverage by strengthening the capacity of the health systems in Kenya to address female genital fistula using NHIF as an entry point; **Elizabeth Wala | Amref Health Africa, Kenya**

Background: Female genital fistula (FGF) is predominantly caused by prolonged obstructed labour (obstetric fistula) coupled with lack of skilled medical care, and usually leads to permanent incontinence of urine or stool. Affected women face several medical problems such as infertility, foot drop, excoriation of the skin around the genitalia, recurrent urinary tract infections and bladder stones. The social problems they encounter are even more devastating: they are often ostracized by their families and communities due to the dribbling of urine down their legs, wetting of clothes and bed and accompanying offensive smell. FGF management largely remains a neglected issue, often affecting the most impoverished women and girls especially in rural and remote areas. Unfortunately, as it stands the current capacity for repairs of women with fistula is quite limited. Kenya is in dire need of medical personnel trained in FGF prevention, care and treatment. Furthermore, financial constraints and geographical accessibility of repair services is a proven challenge for women seeking care.

Description: Amref addresses FGF management through a health systems strengthening approach with the National Hospital Insurance Fund (NHIF) as an entry point. The project is a unique approach to comprehensive female genital fistula management that takes into account both the physical aspects and social determinants of health of the women.

Lessons Learnt: Contribution to Universal Health Coverage through increased uptake of NHIF. Increased knowledge of health workers on FGF management. Financially empowered and socially integrated fistula champions. Strengthening policies and legislation around facility improvement funds. A revolving fund for enrolling more fistula clients into NHIF. Enhancing Private Public Partnerships.

Next Steps: Addressing Female Genital Fistula will require a concentrated and coordinated effort at the national and local levels of different stakeholders. It is imperative that the county governments take central leadership of the health systems strengthening approach to FGF care to ensure sustainability.

TUPE56

Systems approach in strengthening quality devolved health care in Kenya towards universal health coverage; **Elizabeth Wala**
| Amref Health Africa, Kenya

Issue: Improving the quality of healthcare is a key priority in Kenya as reflected in a number of policy and strategy documents. It is for this reason that the Kenya Quality Model of Health approach stands out as a key strategy to actualize this. The study objective is to strengthen the capacity for healthcare quality management and institutionalize Continuous Quality Improvement within 39 health facilities in Kisumu, Vihiga, Kwale and Nairobi counties.

Description: Amref worked with the national and county government in the selected counties and facilities. Preliminary meetings were held with the relevant county health teams, an initial assessment of status of the facilities was done, health workers were trained on KQMH, a baseline assessment done, facilities identified QI projects and monthly mentorship was offered for 6 months after which the second assessment was done.

Lessons Learnt: A strengthened County and Sub County Leadership who have included KQMH planned activities in their counties. An empowered facility staff on KQMH Advocacy for deployment of competent KQMH team leads. A focus on Quality systems and support to KQMH activities rather than fault finding, and punishment. A participatory approach and Engagement of external and internal customers to effectively communicate at all times. Regular monitoring and evaluation of KQMH activities through the existing County health information and reporting systems. Promoted the use of Innovation and use of technology for data entry and analysis Recognition for outstanding performance in provision of quality health services.

Next Steps: As we move our health systems towards UHC, we need to create more linkages with quality of care. The selected counties form a good platform for others to learn from in terms of implementing KQMH.

TUPE57

Retention to HIV care among same-day HIV test and treat adults in Tabitha clinic, Kibera; **Lang'at¹, Ogutu¹, Kerubo¹ | ¹Amref Health Africa, Kenya.**

Background: Initiation of Anti Retroviral Therapy (ART) on the day of HIV diagnosis is now recommended. Studies have shown that early initiation of ART improve linkage and retention to care. There is however limited data on retention of same day HIV test and treat strategy in Kenya. The study aimed at assessing retention to HIV care among patients' initiation on ART on the day of HIV diagnosis in Tabitha Clinic.

Methods: A retrospective data review was conducted on 102 out of 109 files of patients aged >18 years, tested and initiated on ART on the same day between June 2016 and June 2017. Age, gender, occupation, marital status, partner notification and retention data was collected. Multiple regression analysis was used to identify factors predictive of retention.

Results: The participants mean age was 33.4 (19-60) years, 74 (72.55%) females and 28 (27.45%) male. Retention to care was 54.9%. Participants age >31 years were 9.7 times more likely to be retained to care compared to those aged <25 years. (Adjusted odds ratio (AOR), 9.79; 95% confidence interval [CI], 1.23-77.70) P=0.03. Participants in small scale business and casuals laborers were 19.88 and 9.91 times more likely to be retained to care compared to those in formal employment respectively (AOR, 19.88; 95% [CI], 2.58-153), P=0.008 and (AOR, 9.91; 95% [CI], 1.80-54.4), P=0.004. Partner notification significantly improved retention (AOR, 28.41; 95% [CI], 4.95-163.11), P=0.001.

Conclusions: Younger age, formal employments and partner notification were predictive factors for retention. Interventions seeking to address HIV among the youth, in the work place and partner notification services have the potential to improve retention to HIV care.

TUPE58

Social barriers to accessing sexual gender based violence services; **Josephine Achieng Odhiambo | Waridi Project, Kenya**

Issue: According to KDHS 2014, an estimate of 45% of all women aged 15-49 years in Kenya have experienced physical or sexual abuse. A study conducted by Dimovitz, Kristen on sexual gender based violence (SGBV) management revealed that most women who reported to Nairobi Women's Hospital seeking services were mostly residing in informal settlements and medical facilities are not accessible to victims.

Description: Waridi a Swahili word that means rose flower; a project carried out in Limuru constituency. The aim of the project is to increase knowledge levels of key gate keepers on SGBV and offer psycho-social support to victims of abuse. The project is being supported by donations, Kenya Legal and Ethical Issues Network (KELIN) and money from income generating activities. The project trained key gate keepers; police, clinical officers on their role in addressing SGBV and the legal framework of SGBV in Kenya.

The focus on key gate-keepers is that most defilement cases are not reported to the police and if reported the police system is reluctant in arresting the perpetrators, the health systems handle cases with negligence which makes presenting strong evidence in court difficult hence compromising individual's cases and as a result of shame attached to sexual violence, parents to the victims opt for out of court settlements which deny girls justice.

The project reached key gate keepers at the constituency and sub-county level in the area of implementation, 30 girls have been offered trauma counselling and 10 girls have been taken to safe houses.

Lessons Learnt: The need for multi-sectoral approach when addressing SGBV1. The need for donors to invest on SGBV programs2.

Next Steps: Resource allocation to ensure implementation of the set policies on SGBV. Training more key gate keepers at the county, national level to ensure the protection of girls.

TUPE59

A review of community-based health insurance schemes (CBHIS): lessons from Nigeria and Ghana

Ifeanyi Nsofor¹, Nanlop Ogbureke², Charles Usie², Theresa Adah², Chikwe Ihekweazu¹ | ¹EpiAFRIC, Nigeria, ²Christian Aid, Nigeria

Background: Poverty can predispose a household to health risks, which can further aggravate their socio-economic status through decreased productivity and high out-of-pocket healthcare. The objective of the study was to explore perceptions, barriers and opportunities for establishing a Community-based Health Insurance Scheme (CBHIS).

Methods: A qualitative study with in-depth interviews and FGDs with stakeholders of both existing and proposed CBHIS including representatives of primary health centres, HMOs, National Health Insurance Scheme (NHIS) at state and national level, community members.

Results: The role of NHIS in CBHIS for Nigeria is one of both a regulator and an implementer with significant gaps in both roles. These gaps which include use of tax-funded models with co-payments, was found to be an inefficient and impractical way of funding healthcare in Nigeria. The situation is worsened by the fragmented federal structure and lack of delineation of responsibilities across the different tiers of government. Although there have been a few successful schemes, funding CBHIS remains a challenge because of the high level of subsidization by government and donors. In depth community engagement with beneficiaries is critical for enrolment, so also is the size of the risk pool to the scheme's success. A detailed benefit package, quality of healthcare provided, administrative, monitoring and evaluation costs and the relationship of the scheme sponsor with HMOs are important to recruit and keep enrollees. Overall, political will and trust is critical to the success of a scheme.

Conclusions: Strong government partnership is imperative for establishing CBHIS. This is especially important considering the high odds that the primary point of service for most schemes will be a government owned and run PHC facility. The government's role will differ by community. Gaining the trust of members is as essential as government support. The need for actuarial, health and demographic studies cannot be overlooked.

TUPE60

HPV testing of self- collected samples to improve participation in cervical cancer screening in Botswana; **Bakgaki Ratshaa I Jhpiego, Botswana**

Background: Cervical cancer is the leading cause of cancer deaths among women. Reaching population coverage for impact with the current screening approaches, using cytology or visual inspection with acetic acid, remains a challenge resulting in low coverage rates. HPV testing, a more accurate and reliable screening test, of self-collected vaginal samples offers the potential to overcome challenges of access and acceptability thus increasing screening coverage and treatment.

Methods: Ministry of Health and Wellness and Jhpiego recruited women aged 30-49 years in a prospective cohort study, from October 2017 to March 2018 from 5 facilities and communities. Women were offered vaginal self-collection for HPV testing. Those who accepted were given instructions on self-collection, with samples screened for high-risk HPV (hrHPV) on the Cepheid GeneXpert platform. Clients received their results by phone or in person, based on their preference. All hrHPV positive women were offered treatment. Data was entered on CommCare, a digital database allowing real-time client tracking and monitoring. Exit surveys were conducted on ease of self-collection.

Results: Of the 1,022 women enrolled, 1019 (99.7%) had conclusive results, of which 1018 (99.9%) received their HPV test results, 957 (94%) within 7 days, and 330 (32%) the same day.

Among HIV-positive, 230/570 (40%) tested hrHPV positive, of whom 218/230 (95%); among HIV-negative HIV, and 113/449 (25%) tested hrHPV positive, of whom 108/113 (96%) received treatment. Majority of participants reported finding it easy or very easy to understand the self-collection instructions (981/1019; 96%) and to do self-collection (961/1019; 94%), and reported minimal or no discomfort (986/1019; 97%) during self collection.

Conclusion: Offering self-collected vaginal samples for HPV testing can improve access to cervical cancer prevention service delivery, an approach that has potential to greatly improve population level screening and treatment coverage in Botswana

TUPE61

Enhancing contraceptive commodity security through Quality assurance interventions: Case study of Tunza clinics; **Javan Waital, Job Makoyo¹ | ¹Population Services, Kenya**

Background: The women of reproductive age as well as, demand for modern contraceptives is globally increasing. To meet the increasing demand for contraceptives, stakeholders must factor in additional resources and strategies needed to ensure contraceptive commodity security in both the public and private sector facilities in low and middle income countries. While quality assurance interventions such as supportive supervision demonstrated success, there is no existing literature on its contribution to contraceptive commodity security.

Methods: Through donor support, Population Services Kenya established Private sector facilities to ensure access and contraceptive security, these facilities were supported through access to subsidized contraceptives, training on commodity management, and continuous stock monitoring, this paper analyzed DHIS2 data to establish source of contraceptives, stock levels and frequency of stock outs.

Results: During this intervention period, a total of 49,903 long acting contraceptives were supplied to the 372 private facilities with 17,485 been IUCDs and 32,418 Implants. The main supply of the Implants and IUCDs was MoH accounting for 63% with the rest been supplied by PS Kenya. Each facility had an average of 14 pieces of IUCDs and 18 pieces of implants at any given time. At least 84% of the facilities had a stock management system with 20% a computerized system and 80% bin cards. There was a noticeable improvement of the stock management skills during the last quarter of intervention 215 IUCDS and Jadelles could not be accounted compared to 422 pieces in the first quarter of the year.

Conclusion: Quality assurance interventions are in ensuring commodity security by actively monitoring stock levels. An increase of contraceptive uptake in Q4 compared to Q1 is a clear indication supporting facilities to have a working stock management system enables providers to monitor their stock levels and refilling them as per demand and utilization.

TUPE62

Embracing mobile learning – content generation as a key component; **Edna Osebe¹, Leticia Buluma¹, Peter Otieno¹ | ¹Amref Health Africa, Kenya**

Issue: mHealth (mobile health) refers to the use of mobile phones and other wireless technology in medical care. The most common application of mHealth is the use of mobile phones and communication devices to educate consumers about preventive health care services.

Description: This is the backdrop for the genesis of Amref Health Africa's Leap, the mHealth platform, a scalable, integrated mobile learning (mLearning) solution offering continuous training opportunities, peer collaboration, real time evaluation reports and strengthened supervision.

Leap employs an appropriate mLearning pedagogy to train and empower health care workers (HCWs) using their mobile devices. This enables HCWs to learn at their own pace and while in the community, providing for both interpersonal and community aspects of learning. The platform can be deployed anywhere in Africa through Leap Smart and through Leap Basic in Kenya.

Lessons Learnt: In the development of Leap, we have realized that the process of content generation is very critical. This is because publishing rich content ensures that the trained HCWs are adequately equipped with relevant knowledge and skills to perform their roles efficiently and effectively.

So, what is content generation? Content generation is the process of developing relevant content for use by a learner. It involves researching, writing, gathering, organizing and editing information for publication on the media of choice. Stakeholders should be engaged in collaborative design, content writing, review, editing, selecting appropriate delivery channel, quality assurance and translation to preferred language. Developed content is published on a Learning Management System for coordination of learners. On Leap, generated content is published as basic content (audios and text) or smart content (audios, text and rich media) deployed through mobile devices.

Next Steps: So far, we have developed over forty mLearning topics, deployed to over 35,000 HCWs in Kenya. Our ambition is to scale to South Africa, Tanzania, Uganda, Ethiopia, Malawi and Philippines.

TUPE63

Profile of anemia in patients with chronic kidney disease at Butare University Teaching Hospital; **Clement Byiringiro¹, Gratien Muvunyi¹, Jean Paul Rwabihama¹, Florence Masaisa¹ | ¹University of Rwanda, Rwanda**

Background: The chronic kidney disease (CKD) is often associated with anemia, and the latter is more obvious as the renal function deteriorates. The study aims to describe the characteristics of anemia among patients suffering of CKD.

Methods: It was a retrospective descriptive study conducted for a period of one 2 years, from 1st January 2011 to 31st December 2012. All patients with chronic kidney disease hospitalized in this period at Butare University teaching hospital were included.

Results: Among 4996 patients admitted in Paediatrics, Internal Medicine and Nephrology departments during the period of the study, 90 (1.8%) had chronic kidney disease. Among them, 80% were anemic. The mean age was 42.35 years and most of the patients were in the age group of 40 to 49 years (19.4%). Males were predominant, 54.2% of cases and the male: female ratio was 1.2:1. 20.8% of all patients were from Huye district, others were from Nyanza 11.1%, Nyaruguru 9.7%, Ruhango 8.3% and other different districts.

The majority of patients were of low economic income. The most encountered pathology observed with CKD was hypertensive nephropathy (55%). Most frequent signs seen in the study were pallor (73.6), respiratory distress (27.8%), tachycardia (16%) and irritability (15%). Regarding the clinical stages in anemic patients with CKD, 3% of them were in stage II, 8% were in stage III, 10% were found in stage IV and 79% in stage V. A large number of anemic patients with CKD were found to have a low economic income (72.2%), while others were with moderate (25%) and high economic income (2.8%).

Conclusion: This study revealed that anemia in patients with CKD is a significant health problem in a referral hospital and its incidence is rising as renal function deteriorates. More effort is therefore required to improve patient's detection, management and follow up.

TUPE64

The National Health Insurance Scheme and its implications on indigent health in South Tongu district, Ghana; **Papa Momodou Jack | University of Cambridge, United Kingdom**

Issue: The last four decades have seen health become a central part of the global agenda, as evidenced by the unprecedented political attention to health challenges in developing countries, and by the heterogeneity of new actors engaged in development assistance for health. Alongside the global drive to achieve universal health coverage, numerous organisations point to Ghana as an example of an African country that has ‘successfully’ implemented health insurance schemes for the most marginalised.

Although enrolment rates and access to healthcare have increased since the implementation of the National Health Insurance Scheme (NHIS), this paper highlights some of the limitations of the Scheme in providing the expected health benefits to the insured indigents in Ghana. These challenges raise critical questions about the sustainability and value-for-money of other similar health insurance schemes that have been adopted across the Global South. The study found that for the majority of indigents, the effectiveness of the NHIS in providing quality healthcare was compromised by continued out-of-pocket expenditures, the unaffordability of the insurance premium, the absence of a user-friendly environment in many health facilities, and the exclusion of some critical diseases from the Scheme.

Lessons learnt: Given the rapid growth in population across the continent in the medium term, coupled with falling mortality rates and an ageing population, health policies will not only need to address issues of quality and inequity, but also adapt to changing demographics.

TUPE65

mVaccination, an Innovative Technology Solution for saving children lives through immunization: a pilot project in Geita and Shinyanga regions, Tanzania | **Serafina Mkuwa¹, Nyerere Jackson¹, Proches Innocent¹, Frida Ngalesoni¹, Aisa Muya¹, Florence Temu¹** | **¹Amref Health Africa, Tanzania**

Issues: Despite global efforts, 3 million children die every year from vaccine preventable diseases and one fifth of children worldwide are not fully immunized. Supply and cold chain bottlenecks prevent community facilities from consistently delivering immunization services. To address this, Amref in collaboration with Mezzanine under funding of HDIF and GSK developed an innovative solution mVaccination - a two-year and half pilot project in Shinyanga and Geita regions.

Description: mVacciNation is a cloud-based interoperable mobile phone solution to addresses problems of insufficient data management, unpredictable supply and cold chain, uptake of services, and irregular vaccine outreach sessions thus reducing children deaths caused by vaccine preventable diseases. The platform use smartphones and nurses use for recording administered vaccinations at health facilities and outreach services to record each child. Its uniqueness is on ability to identify defaulters and to notify caregivers through automated SMS alerts, on upcoming or missed vaccination appointment hence reduces dropout rates. Connect Health Facilities to District Immunization Officers through the alert system for vaccine stock outs and temperature levels.

Lessons learnt: In two years 95,068 children and care givers were registered, 315,660 immunizations per antigen provided, 17,636 stock and 22,465 temperature updates submitted. 30,543 reminder messages sent to care takers prior to due date of vaccination and 34,412 messages after a missed vaccination appointment. Vaccination coverage rose from 93% to 98%, stock-outs fall from 78% to 28%, data quality and accuracy rose from 78% to 93%.

Next step: Unlike other solutions in the country, mVaccination has a unique community component which links the community to lower level health facilities and goes down to trace a 5th child in community for services. Therefore, integration of mVaccination into VIMs will improve immunization coverage rates and scaling up to further places and for sustainability.

TUPE66

Enhancing social accountability in health service delivery; Lessons learnt from the Test phase of Innovative Partnership for Universal and Sustainable Healthcare (i- PUSH) project; **Rachel Ambalu | Amref Health Africa**

Issue: Kenya is one of the countries in the world where advanced plans for Universal Health Coverage (UHC) have been made, as highlighted in her big four agenda. However, UHC is far from being realized given that the Kenyan health system relies heavily on Out of Pocket (OOP) payments charged in both public and private health facilities. OOP expenditure was last measured at 76.62%.

Description: i-PUSH is a partnership between Amref Health Africa and Pharmaccess Foundation. It leverages on mobile technology to improve access to quality health services for Women of Reproductive Age and children under five in Nairobi, Kakamega and Samburu counties. Its innovations include Leap, MJALi and MTIBA and was piloted in Dagoretti Sub County in Nairobi from October 2016 to March 2017. Its objective was to test the operational feasibility of introducing and linking the three innovations. The study employed a cross-sectional design with a range of stakeholders including CHWs, WRAs, Health Management Teams, and community opinion leaders.

Lessons learnt: Upon conclusion of the test phase, there was need to merge MTIBA with the National Health Insurance Fund (NHIF) for improved access to health services by WRAs. More time for user training on the three mobile technologies was required. Weekly feedback meetings with the CHWs coupled with review meetings with the HMTs was critical in accelerating the learning and supervisory processes respectively. Active consultative engagements with key opinion leaders catalysed acceptance and uptake of health services. Introduction of a help desk played a critical role in ownership, trouble shooting and focused support to respective players.

Recommendations: Strengthening accountability measures is a critical element in improving health system performance, leadership and return on investment. The test phase provided fundamental lessons that have significantly informed alignment of the project for optimal outcomes.

TUPE67

Talking health: identifying trusted health messengers and effective ways of delivering health messages in rural Ethiopia; **Shifera Asfaw Yedenekal¹, Muluemebet Abera¹, Abebe Mamo¹, Sudhakar Morankar¹, Lakew Abebe¹, Nicole Bergen¹, Manisha Kulkarni², Ronald Labonté² | ¹Jimma University, Ethiopia, ²University of Ottawa, Canada**

Background: This abstract aligned on 'access' specifically, on track one in addressing cultural, social barrier on accessing health services. One of the challenges for service utilization is information gap. Access to trust health information has contributed to improve maternal and child health outcomes. However, limited research to date has explored the perceptions of communities regarding credible health messengers and messaging in rural Ethiopia. Therefore, this study aims to explore sources of trusted maternal health information and preferences for the channel of information delivery approach.

Method: An exploratory qualitative study was employed across six rural study sites in Jimma Zone, Ethiopia in 2016. Twelve focus group discussions (FGDs) and twenty-four indepth interviews (IDIs) were conducted among purposively selected study participants, exploring trusted health messengers and communication channels. The data collected in the local language, and digital voice recordings were transcribed into English. All transcripts were read comprehensively, and a code book was developed to guide thematic analysis. Data were analyzed using Atlas.7.0.71 software

Result: Participants identified Health Extension Workers are trusted health messengers. With regard to messaging, participants primarily preferred interpersonal communication channels, followed by mass media and traditional approaches like community meetings and community conversations. The HEWs have a house to house outreach program to communicate messages, this helps them creating trust between community members and lower levels of the health system. However, they noted lack of support from the government for these activities.

Conclusion and recommendation: Health knowledge transfer success depends on trusted messengers and adaptable communication channels. Using existing social structures in rural community's may enhances the success of health information uptake which foster access to maternal health services utilization. This has contributed, so those under privileged mothers are not left behind for their right to access essential health care.

TUPE68

Shit is wealth. Case of Sludge Drying Bed in Kitgum Municipality, Uganda; **Hajra Mukasa | Amref Health Africa, Uganda**

Background: In Kitgum, 95% of generated fecal matter is held in lined pit latrines and septic tanks which require emptying whenever filled. Unfortunately, the municipality had no facility that collects and treat fecal sludge. The entities involved in fecal sludge management, dispose fecal matter in locally dug ponds and natural depressions. These ponds became breeding places for mosquitoes and posed a huge risk of contamination of water sources. Consequently, 90% of the disease burden and mortality in Kitgum especially among children below 5 years of age was diarrhea and malaria. Amref constructed the sludge drying bed to provide a low cost solution to fecal sludge management to solve this problem

Description: Amref with funding from the European Union partnered with the communities of Kitgum and municipal council authority to construct a 195,000 US dollar Sludge drying bed. The design of this facility allowed for self-treatment of fecal sludge and effluent for reuse leaving "no waste to waste". The plant dewater sludge from the drying beds and the effluent treated in facultative ponds and a constructed wetland. Treated sludge from composting shed is used as soil enhancer and the effluent used for irrigation. The facility is managed by trained entrepreneur who makes money by emptying toilets and turning dry sludge into briquette and compost for sale. The plant has overall design life of 20 years, receiving about 27m³ of fecal sludge per day.

Lessons learnt: Jobs created for 5 entrepreneurs and 8 women groups; 5% improvement in latrine coverage in 6 months; Entrepreneurs earn \$75 per day.

Conclusion: This facility not only bring an opportunity of a lasting sanitation solution to the people of Kitgum, it also comes along with big business potential for the entrepreneurs, women and youth. It is therefore the most appropriate technology for all urban communities where there is no sewerage system

TUPE69

Effect of post-natal gestational age assessment training of health care providers on newborn care practices in Migori County, Kenya; **Ednah Ojee¹, Rachel Musoke², Florence Murila², Phelgona Otieno³ | ¹Ministry of Health, Kenya, ²University of Nairobi, Kenya, ³Kenya Medical Research Institute (KEMRI) Center for Clinical research (CCR), Kenya**

Background: Prematurity is a major contributor to neonatal deaths globally with East African countries ranking among the top 15 countries accounting for 75% of these deaths (1) (2). Late preterms (32 to 37 weeks) contribute the highest number of newborn deaths; early recognition for low cost interventions is crucial for achieving sustainable development goal 3.2 (3). In Kenyan public hospitals, preterm babies are largely cared for by middle level health care providers as specialists are few. This study sought to explore the effect of training middle level health care providers on post-natal determination of gestational age and determine the effect of this training on newborn management.

Methods: A nested study within larger Pre term Birth Initiative study. Interventional mixed methods study with a prospective quasi-experimental arm (comparison of before and after effect) and qualitative aspect conducted at the Migori county referral hospital in Kenya. Health care providers received training on use of New Ballard score and Inter growth 21st charts. Quantitative data was collected using questionnaires and analyzed using SPSS version 21 while qualitative data was collected through focused group discussions and explored for emerging themes and quotes.

Results: The health care providers used skills gained to classify preterms based on gestational age not previously done. They accurately classified 65% of the preterms as late. Kenya national ETAT+ guidelines were used as surrogate markers for newborn care practices. Statistically significant improvements were observed in their use of chlorhexidine for cord care 70% (p value <0.0001), and vitamin K administration 46% (p value <0.0001).

Conclusion: Training health care providers' in post-natal gestational age assessment is an affordable strategy for early recognition of late preterms that can be adopted towards improving survival.

Key words: Gestational age assessment, Training, late preterm

TUPE70

Utility and effectiveness evaluation of non-communicable disease mass campaign in city of Kigali Rwanda 2017; **Melanie Mukantagara¹, Véronique Zinnen², Joseph Mucumbitsi³, Alphonse Mbarushimana⁴, Marie Therese Kangabire⁵ | ¹RBC Rwanda, ²Enabel (Belgian Development Agency), ³Belgium, Rwanda Heart Foundation, ⁴Rwanda NCD Alliance, ⁵City of Kigali**

Background: Since 2016, City of Kigali is organizing one annual Mass campaign on NCDs to increase awareness, early detection and management. During the campaigns, thousands of people are screened, education messages provided. People found with abnormal values and risk factors receive counselling. This evaluation aims to understand utility and effectiveness of the campaign and can be a monitoring and model to ensure better quality of health services.

Methods: Close follow up of people screened during 2017 mass campaign: from statistical analysis of data, all cases with abnormal values to standard definition of hypertension and hyperglycaemia were extracted and interviewed by phone.

Results: From 674 people with abnormal values, 439 were reached and consented. The main reason to attend the screening place (94%) was to know their status, 73% didn't know it before. 90% received counselling, mainly about physical activities and healthy diet. 35% were advised to go to health facility to confirm diagnosis for further management. The majority knows hypertension (61.6%), diabetes (60.5%) and unhealthy diet (46%). Following the campaign, 39% changed their life habits like doing regular physical activities, eating more fruits and vegetables, reducing use of salt and sugar. The majority found this campaign very useful for detection (63%) and declared to recommend it to others (94%).

Conclusions and recommendations: The mass campaign contributed to detect NCDs as 70% did not know their status. People received information and counselling. Only 35% were advised to go to the health facility while all had abnormal values. After this campaign, only 39% changed the life habits. In conclusion, the NCDs mass campaign seems to be useful with room of improvement especially in education and case management. This kind of evaluation should be repeated including all screened people in order to improve the next campaign organisation and its impact.

TUPE71

Motivational factors that influence the retention of community health workers in Kibwezi Sub-County, Kenya.; **Ruth Mbugua¹, John Paul Oyore², James Mwitari³ | ¹Mount Kenya University, Kenya, ²Kenyatta University, Kenya, ³Ministry of Health, Kenya**

Background: The study is aligned to the track for Strengthening and redesigning primary healthcare centres to deliver integrated, people-centered health services. Community Health Workers (CHWs) have been trained across countries to deliver services in communities following the Alma Atta Declaration. The programmes have faced a lot of challenges since their inception with the retention of CHWs being a major problem. The aim of the study was to assess the motivational factors influencing retention of Community Health Workers in Kibwezi Subcounty.

Methods: A Cross-Sectional Comparative study design was used where both quantitative and qualitative data was collected. A total of 282 CHWs were interviewed from Community Units receiving monetary incentives and those not receiving monetary incentives. Data was analyzed using Stata version 11.

Results: Results of this study show that majority of CHWs were satisfied with their job. Receiving subsequent training, adequacy of supervision and households served were significantly associated with intention to drop out. Majority of CHWs (55.8%) cited being motivated the most by a salary with the quoted amount ranging between US\$ 30 to US\$50. CHWS not receiving monetary incentives were more likely to report an intention of dropping out. (P value = 0.008) 13% of the CHWs not receiving monetary incentives had dropped out compared to 4% among those receiving monetary incentives.(P=0.013) 80% of CHWs not receiving monetary incentives had contemplated dropping out compared to 66% among CHWs receiving monetary incentives. The reasons reported for intention to drop out were financial constraints, inadequate supervisors support and lack of transport.

Conclusions and recommendations: CHWs retention can be enhanced through subsequent training, supervision, harmonization of workload, provision of transport and a harmonized salary. Retention of CHWs is paramount for the strengthening of Primary Health Care systems.

TUPE72

Collaborative ventures for improving faecal sludge management; A case study of Kitgum Municipal Council in Northern Uganda;

Teo Namata | Amref Health Africa, Uganda

Back ground: Communities in Kitgum mainly use onsite sanitation (86% using pit latrines, 7% using lined toilets and 7% defecating in the open). Faecal sludge management from onsite sanitation facilities was the biggest challenge to Kitgum Municipal Council (KMC) authority. Disposal of the sludge was being done in swamps creating breeding places for mosquitoes with the risk of contaminating water sources. It is upon that background that KMC authority started demanding for a system that can be locally used to manage, treat faecal waste and allow re-use of the waste product.

Description: Amref through support from European Union and Amref Flying Doctors in Netherlands joined hands with KMC to co-fund the construction of the faecal treatment system in Kitgum. KMC is the administrative center of Kitgum District located in Northern Uganda with the current population of 62,000 inhabitants with a growth rate of 4.1 annually. KMC contributed 3 hectares of land, opened up access roads, and compensated the affected community as well as assigning an Engineer to oversee the construction work for quality assurance. On the other hand, Amref with support from European Union and co-funding from Amref Netherlands met the financial cost for the construction of the Sludge Drying Bed (SDB) (USD 186170). How it works

The SDB consist of different layers of gravel-sand filter media to allow dewatering of the sludge from the drying beds and pre-treatment in subsequent ponds before being discharged into the wetland.

Lessons learnt: Open dumping of fecal matter has stopped, 5 entrepreneurs/women groups established, 25% of the revenue generated at the facility is remitted to the municipal council authority

Conclusions: The SDB is simple in design and operation providing a low cost alternative for management of sludge in Kitgum.

TUPE73

Sustainable water and sanitation services through WASH-Integrated VSLAs in Northern Uganda; **Isa Sematimba | Amref Health Africa, Uganda**

Background: In Northern Uganda, Water, Sanitation and Hygiene (WASH) infrastructure such as boreholes break down soon after the project ends. This is mostly due to challenges associated with mobilizing funds for Operation and Maintenance (O&M) by selected Water User committees (WUCs). This grossly undermines functionality of water points as well as safe water access resulting into a waste of investment. In Agago and Pader Districts, the water source functionality rate stood at 61% and 57% respectively in 2015. To address this, Amref Health Africa introduced the WASH-Integrated Village Savings and loans Associations (VSLAs) model with the aim of promoting simple saving approach for O&M of water sources.

Description: A total of 40 WASH-Integrated VSLAs from Pader and Agago Districts were formed and trained. These were attached to the 40 rehabilitated water points and were integrated with the selected WUCs. This resulted into the WASH-focused VSLAs. These were trained and guided to continue saving but with WASH as an objective for saving. Group members meet weekly to save money with the treasurer. The saved money is also lent out to the contributing members as loans. Members pay back the loans with an interest. As stipulated in their constitution, a percentage of the savings is directed towards O&M thus ensuring that there is always money available for O&M of WASH facilities. Members also engage in other income activities such as group farming which widens their financial base. For one to belong to this group, one must have improved sanitation facilities at home.

Lessons learnt: Easy mobilization of funds for O&M of WASH infrastructure (over \$300 per group). Increased functionality of water sources (90%) among target communities resulting in increased safe water access. Increased sanitation coverage (85%) leading to better health.

TUPE74

A shift in paradigm of disease profile in Kenya: should we be cautious? **Premanand Ponoth | The Karen Hospital, Kenya**

Introduction: As per the World Health ranking in 2014 Kenya stands 149th in the world in census of coronary artery diseases. 2.74% of the total death. The main cause of death in communicable disease are: influenza, HIV/AIDS, diarrhea, malnutrition etc. Kenya is experiencing epidemiological transition in disease burden from infection to non-communicable condition (NCD), which are a major health concern with significant social and economic implication. The increasing coronary artery disease (CAD) may be due to adoption of unhealthy lifestyle. Cardiovascular disease amount to most of the NCD deaths around the world (17.5 Million annually). NCD in Kenya amount to 27% of the total death, more than 50% of total hospital admission in Kenya. The major NCD being cardiovascular conditions, cancer, diabetes, chronic obstructive pulmonary disease. Mortality due to CAD in Kenya is between 6.1% -8% while autopsy study suggest it is more than 13%. The risk factors has increased over the last 20 years. Rheumatic Heart disease constitutes a major cause of cardiovascular diseases both in children and adults in Kenya. The World Health Organization (WHO) estimates that NCDs will cause 73% of Global deaths and 60% of the burden of disease by 2020. Cardiovascular diseases account for most NCD deaths, or 17.5 million people annually, followed by cancers (8.2 million), respiratory diseases (4 million), and diabetes (1.5 million).

Description: In the last one year more than 30 Coronary Artery Bypass Surgery (CABG) was done at the Karen Hospital, Nairobi. We have evolved a system to maximise the utility of the locally available consumables and personal to remain self-sufficient to suit the African population.

Conclusion: Public awareness by government campaign can keep the NCD's under check.

TUPE75

Level of satisfaction and retention of Health workers in developing regions of Ethiopia; **Muluken Dessalegn¹, Yeshitila Hailu¹ | ¹Amref Health Africa, Ethiopia**

Introduction: Most African countries including Ethiopia have huge health workers shortage. Countries are constantly looking for strategies to train more health workers, and improve job satisfaction, motivation and retention of the health workforce.

Objectives: To assess on Midwives and Health Extension Workers (HEWs) satisfaction and retention and associated factors in four developing regions of Ethiopia.

Methods: A facility based cross sectional study design that employed mixed quantitative and qualitative was done. Quantitative data was collected from 107 midwives and HEWs whereas qualitative data were from purposively selected 22 key informant representatives from four regional health bureaus, four zonal health departments, 12 woreda health offices, and four regional hospitals.

Findings: The total mean job satisfaction score of midwives and HEWs based on the nine satisfaction dimensions were 3.63(SD+0.65) and 3.09(SD+0.87) respectively; which brings to the overall satisfaction level of 45% and 57% for Midwives and HEWs respectively. Both midwives and HEWs were found very much dissatisfied with 'development opportunity (midwives 54%; HEWs 63%) and 'Payment and benefit (midwives 56%; HEWs 52%)' dimensions. Overall, factors that influence job satisfaction and motivation revolve in the domain of financial and non-financial benefit, monthly salary, career development, high work overload, availability of less incentives, lack of public transport, poor road infrastructure, working environment and in other related category. In this study 39% of midwives and 44% HEWs' were found to have intention to leave the facility that they are currently working; more importantly, 51% and 49% declared that they likely actively look for a new job next year. In the regression analysis, the overall all job satisfaction score as well as individual job satisfaction dimensions had a positive relationship with intention to leave. Family size and salary found a statistically significant predictor of job satisfaction for both midwives and HEWs.

Conclusion and recommendation : The job satisfaction of midwives and HEWs is low across the four regional state. In general, health workers have broad priority including financial and non-financial benefits, adequate career development, and conducive working environment are critical for satisfaction and retention. Therefore, a need for strategy framework for national job satisfaction and retention mechanism and acting accordingly are vital for Ethiopia health workers.

TUPE76

Health facility barriers to access and utilization of adolescent friendly Sexual Reproductive Health Rights (SRH) services in Amuru District; **Stephen Mutinyu¹, Margaret Mugisa¹, Tonny Kapsandui¹, Patrick Kagurusi¹ | ¹Amref Health Africa, Uganda**

Background: In Amuru District in Northern Uganda, utilization of sexual rights and reproductive health (SRH) services is low mostly among young people (15-24years) who are faced with limited access to SRHR services and yet they face a myriad of SRHR related challenges. The public health facilities in the district are constrained in their capacity to deliver youth friendly SRHR services.

Methods: Using a cross sectional survey, qualitative data were collected from 8 health facilities in Amuru District using focus group discussions, observations and key informant interviews.

Findings: The study found that the public health facilities do not have adequate equipment and human resources to deliver adolescent friendly SRHR services. The health facilities do not have the relevant equipment and material such as waiting rooms/ space for adolescents to deliver SRHR services. In terms of human resources, there is a lack of qualified and experienced health workers to deliver SRHR services to the adolescents. The health workers also do not have adequate training to deliver adolescent friendly services. Delivery of adolescent friendly SRHR services is also constrained by poor attitudes of health workers towards provision of adolescent friendly SRHR services since poor customer care was cited.

Conclusions: The capacity of public health facilities in Amuru District to deliver adolescent SRHR services in terms of equipment and human resource is low thus affecting delivery, access and utilization of adolescent friendly SRHR services. The capacity of public health facilities to deliver adolescent SRHR services in terms of equipment and human resources should be improved by all the stakeholders including government and development partners.

TUPE77

Breast cancer pharmacotherapy and medication use follows up management of ambulatory patient in Rwanda. Case study: Butaro hospital, Butaro cancer center of excellence. Huye, June 2017; **Valens Maniriho | Ruhengeri Referral hospital, Rwanda**

Introduction: Today, as the potency, effectiveness, and specificity of clinical cancer medicines improves, the toxicity associated with them also increases. Individuals are required to be knowledgeable about the trajectory of their disease and treatment pattern so that the patient and family members are able to identify abnormal symptoms.

Methods: A descriptive retrospective study based on exploratory was followed with a sample of 75 patient files from BCCOE archives for review and 42 breast cancer patient for interview registered from January, 2015 to May, 2017.

Results: The study revealed that all of breast cancer patients under chemotherapy and endocrine therapy were female, among 75 patients, 4(5.3%) presented with early-stage, 57(76%) with locally advanced, 13(17.3%) with metastatic disease and 1(1.3%) recurrent breast cancer. or women whose treatment is intended for cure (i.e., those with early-stage or locally advanced disease), for metastatic one among. After reviewing patient file, we found that, 94.4% of potentially curable patients were alive, 2.8% were dead with improper documentation and reporting of SE, and only 2.8% refuse to receive curative chemotherapy with 42 respondent shows that 92.9% attend all hospital visits in favour of call phone communication between patient, patient family and BCCOE's health care practitioner, and feelings when they are talking to doctor/pharmacist on phone. The result from 42 respondent on interview show that patient satisfaction with care deliver at BCCOE was 92.9%, but regarding their wish about what BCCOE can do to improve care and follow up of women on cancer therapy; 3(7.14%) wishes to have CHWs in their management only, 4(9.53%) wish to have call phone communication only and 35(83.33%) wish both call phone and CHWs in their management Pharmacotherapy given at BCCOE follow national treatment guidelines

Conclusion: Together both call phone communication and CHWs they can strengthen the chronic health management, awareness and continuity of care for poor individuals.

TUPE78

Strengthening the capacity of healthcare workers to address rheumatic heart disease using a health system strengthening framework; **Renae Stafford¹, Glory Joseph², Wemaeli Mweteni², Steve Justus¹ | ¹Touch Foundation, Tanzania, ²Bugando Medical Center, Tanzania**

Background: Women and children in sub-Saharan Africa, particularly in rural areas, remain marginalized due to low healthcare literacy, socioeconomic and cultural barriers, leading to delays in seeking care. These barriers, coupled with lack of access to quality healthcare services provided by well-trained healthcare workers (HCW), contribute to high rates of maternal and child mortality from easily preventable diseases such as Rheumatic Heart Disease (RHD). Our program, in rural western Tanzania, addresses some of these barriers, incorporating a health system strengthening approach.

Methods: 14 HCWs, including MDs, nurse-midwives and an anesthetist in public/faith based and private not-for-profit lower-level health facilities (LLF), were educated about strep throat, ARF and RHD. They received training to perform left heart screening echocardiogram for RHD and screening obstetric ultrasound. School students and 12 teachers received education to improve health literacy about strep throat, acute rheumatic fever (ARF) and RHD. Screening for strep throat, using point of care rapid testing, and RHD using echocardiogram was performed in 2 districts with a catchment population of 1.3 million. All positive results were treated and referred as appropriate. Specialists from the zonal super-specialty, referral hospital served as trainers and coaches and consultants for the HCWs in the program.

Results: 3,020 school children received strep throat screens and left heart echocardiogram. 2,000 pregnant women were screened by echocardiogram for RHD, had obstetric ultrasounds, and 225 received strep throat screening. All positive results were treated and referred as appropriate.

Conclusions: Developing capacity of HCWs from LLF to diagnose strep throat and screen for RHD, along with community education, can enhance health literacy, brings resource appropriate diagnostic testing and screening closer to the community, and improves the referral network by linking local HCW's and LLF with specialists from the referral hospital.

TUPE79

Better evidence: Assessing the utility of an Evidence-Based Clinical Resource to improve the quality of care at the University of Rwanda; **Blaise Ntacyabukura | University of Rwanda, Rwanda**

Issue: Evidence-based clinical resources (EBCRs) have the potential to improve diagnostic and therapeutic accuracy. The majority of U.S. teaching medical institutions have incorporated them into clinical training and practice. Many EBCRs are subscription-based, and their cost is prohibitive for most clinicians and trainees in low- and middle-income countries (LMICs).

Description: We offered medical students and faculty at the University of Rwanda free access to up-to-date, a leading EBCR. We conducted the first prospective cohort study of African medical students to assess its utility. Students completed two surveys on their study habits and gave permission for remote logging of all their activity on up-to-date.

Lesson learnt: Their medical school grades were obtained as well. Of the 980 students invited to enroll over two years (2015-2016), 547 did (56%). Of eligible final-year students, 88% enrolled. At baseline, 92% of students reported ownership of an internet-capable device, and the majority indicated using free online resources frequently for the purposes of medical education. When offered access to up-to-date, final-year students viewed, on average, 1.24 topics per day and continued to use it frequently after graduation from medical school. Class performance in exams of graduating students was better in 2016 and 2017 (after introduction of up-to-date) than in previous years.

Conclusion: In conclusion, removal of the cost barrier was sufficient to generate high uptake of a leading EBCR by senior medical students and habituate them to continued usage after graduation. Qualitative research might help elucidate the drivers of uptake and its impact on student learning, in order to facilitate scale-up.

TUPE80

Quality assessment in the hospital laboratory: errors in the total testing process in the clinical chemistry laboratory at University of Gondar Hospital, Northwest Ethiopia; **Sintayehu Ambachew Wondemagegn | University of Gondar, Ethiopia**

Background: Hospital Laboratory services have been described as the major processes contributing to safe patient care in the modern healthcare sector. However, occurrences of errors in the overall testing processes impair the clinical decision-making process. Such errors are supposed to be high in resource-poor countries, like Ethiopia. The aim of this study was to assess errors in the total testing process in the Clinical Chemistry laboratory of University of Gondar Hospital, Northwest Ethiopia.

Methods: A cross-sectional study was conducted at the University of Gondar Hospital from February to March 2016. All the required data were collected according to structured inspection sheets of International Federation of Clinical Chemistry established quality indicators. Data were analyzed using SPSS version 20. Frequencies, cross tabulations, and graphs were used to summarize descriptive statistics. The data were compared using independent t-test.

Results: A total of 3259 samples and corresponding laboratory request forms were received for analysis. The analysis of the overall distribution of errors revealed that 89.6% were pre-analytical errors, 2.6% were analytical, and 7.7% were post-analytical errors. Of the pre-analytical errors, incomplete request form filling was the most frequent error, followed by sample rejection rate (3.8%). Analytical errors related to internal and external quality control exceeding the target range, (14.4%) and (51.4%) respectively, were reported. Excessive turnaround time and unreported critical value cases were the major defects in the post-analytical phase of quality assurance.

Conclusion: The present finding showed a relatively high frequency of errors, which alarms the importance of quality indicators to assess errors in the total testing process. The Hospital laboratory should improve the quality of healthcare services based on these findings using laboratory standards.

TUPE81

The Power of ePayments – is mobile money part of the solution? A case study of Amref Health Africa in Uganda; **Bob Okodi¹, Deusdedit Mbuga¹, Margaret Mugisa¹, Dorothy Akera¹, Henry Rwabuhinga¹ | ¹Amref Health Africa, Uganda**

Issue: Operating with an annual budget averaging \$8,285,478 million for the period of 2012 – 2014, a large volume of the transactions within Amref Health Africa in Uganda were either paid through cheques or cash payments. Amref Health Africa in Uganda stakeholders were paid promptly; and accountability for funds was done on time. Despite the benefits, there were inadequate gaps in internal controls in that period that presented a risk of loss of funds through fraud. This necessitated the digitization of payment processes through the introduction of e-Payment options.

Description: Amref Health Africa in Uganda in 2013 embraced internet banking to replace cheque payments and in 2016, Beyonic a US based company that offers mobile payment solutions to organizations in emerging markets was contracted to provide an online payment platform to replace cash payments. The mobile payment platform was meant for direct upload of beneficiary details which are pre-checked for authenticity before payments are effected. These Interventions were meant to increase efficiency through reduction in the payment processing time, reduce administration costs by eliminating the need for personnel to bank cheques or physically make payments to beneficiaries, reduce the risk of fraudulent payments, and contribute towards financial inclusion of the unbanked population.

Lessons Learnt: Staff debtors reduced significantly from \$98,127 as at 31st December 2015 to \$6,418 as at 31st December 2017 and operating costs from \$1,982,303 as at 31st December 2015 to \$343,208 as at 31st December 2017. Mobile money payments have also ensured faster and safer means of transacting.

Next Steps: The risk of fraud through cash payments has reduced significantly, however this has not been completely eliminated by e-Payments. The platforms should be in position to have inbuilt mechanisms to detect and identify suspicious transactions.

TUPE82

Contextual factors that influence roles and performance of community health workers in the field of sexual and reproductive health and rights in Kenya, Malawi, Tanzania, Uganda and Zambia; **Rehema Chengo¹, Mirre Van Veen¹ | ¹Amref Health Africa, Netherlands**

Introduction: Community Health Workers are essential in connecting communities to the formal health system, for achieving UHC and access to primary health care. CHWs also play an important role in access to sexual and reproductive health and rights in Africa. Amref Health Africa advocates for recognition and remuneration of CHWs.

Methods: To refine advocacy strategies in Kenya, Malawi, Tanzania, Uganda and Zambia, a scoping review was conducted on contextual factors (social, cultural, economic, environmental and factors related to health systems) influencing roles and performance of CHWs in the field of SRHR. Scientific articles, policies and strategies, programme evaluations and other documents were reviewed.

Results: In relation to social factors, the desk review showed that in some contexts educated CHWs are more valued by communities and often perform better compared to less educated CHWs. Furthermore, stigma, confidentiality, security, safety and migration influence CHW performance. Analysis of cultural factors showed that gender norms, especially male dominance in decision making, limits women in seeking health care or adherence to care. CHWs are often hindered when discussions on sexuality are culturally unacceptable. Also, CHWs sometimes struggle with misconceptions about side effects of contraceptives. Economic, environmental factors and factors relating to the health system, showed that SRHR tasks of CHWs should be clear to all actors in the health system and changes should be communicated widely. Support such as training, supervision, equipment, supplies, incentives and remuneration is needed to perform new tasks.

Conclusion: More clarity and support for SRHR-related roles and tasks of CHWs is necessary to optimize CHWs performance in SRHR. Also, family and community support is instrumental for performance. Advocacy and policy should pay attention to facilitating the role of CHWs in SRHR, by focusing on soft skills in training and strengthen their interface role between the communities and the health system.

TUPE83

Utilizing child health days to deliver integrated health packages to Mothers and children; **Mulindwa Alex¹, Andrew Ndamira¹, Esther Naluguza², Ndagire Kisakye Gloria¹, Nsasiirwe Sheillah² | ¹Amref Health Africa, Uganda, ²Egpaf, Uganda**

Introduction: Since 2000, Uganda has implemented the biannual integrated child health days every April and October offering low cost high impact interventions to improve child survival including immunization, Vitamin A supplementation, Deworming, EID and Nutrition assessment and counselling, health education on Long Lasting Insecticide treated nets and improving WASH. Tetanus toxoid and HPV Vaccination is also provided to women of reproductive age and girls below 10 years. In October 2017 in line with the recommendation from MOH, the USAID RHITES SW team recognized CHD as an opportunity to deliver an integrated service package to the children as well as women and men in the community.

Description: The project team supported district stakeholder planning meetings and mapping of underserved communities, developed and shared a reporting tool to facilitate collection of data on delivery of the integrated services. The Facility teams constituted a multidisciplinary team of health workers to offer the integrated child health service package, including a skilled midwife to offer ANC, PNC, and FP services.

Lessons Learnt: A total of 196 children were identified with malnutrition and appropriately managed or referred, 192 pregnant or lactating mothers were newly identified as HIV positive and all linked to care, 87 HEI had DBS taken for EID, 31 children >2 yrs were newly diagnosed HIV positive and linked to care, 8132 clients accessed Family planning services, and 4544 mothers received ANC service package as per recommended visit schedule.

Conclusion: Integrating a comprehensive package of health services during child days' intervention offers a great opportunity to reach out to mothers and children and needs to be harnessed on a large scale as an intervention to further increase service access.

TUPE84

An assessment of user perspectives on malaria services offered by community health volunteers in ten counties, Kenya; **Patrick Igunza¹, Jared Oule¹, Jacinta Kandie¹ | ¹Amref Health Africa, Kenya**

Background: Early diagnosis and treatment is important in reducing morbidity and mortality due to malaria. In the 2009 – 2018 Kenya Malaria Strategy, Community Case Management of Malaria (CCMM) is fronted as one of the approaches to increase access to early diagnosis and treatment of uncomplicated malaria. Under Global Fund support, ten counties (eight in the lake-endemic and two in the highland epidemic-prone zones) have implemented CCMM since 2012. For success of an intervention, user acceptability is key. This study assesses community members' perspectives on malaria services offered by Community Health Volunteers (CHVs).

Methodology: In December 2017, a cross sectional survey was conducted in ten counties. Study participants included household members who had been randomly sampled with Community Units serving as clusters. A household questionnaire that assessed the household head's perception of CHVs' work was administered. Data collected was summarized in an excel sheet and transferred to SPSS V17. User perspectives were analyzed using frequencies.

Results: Of the 1134 household heads (902 female, 232 male) surveyed, 856 (75.5%) were in monogamous marriage while 698 (61.6%) had attained secondary education. Majority (90%) had received malaria services from CHVs. Of those who had received malaria services, 44.7% felt the services were very satisfactory while 49.1% found the services satisfactory. Only 0.3% thought the services were very unsatisfactory. CHV attributes rated high by the respondents were: being respectful (98%), observing confidentiality (97%) listening (96.6%) and being helpful (95%).

Conclusion: Community members readily access and are generally satisfied with malaria services offered by CHVs. CCMM needs to be scaled up as a strategy to increase access and reduce malaria related morbidity and mortality.

TUPE85

Integration of HIV/AIDS, TB and Malaria Community programs through Organizational Development and Systems Strengthening of Civil Society Organizations: A case of Emuhaya Sub County; **Michael Nduri¹, Patrick Igunza¹, Jared Oule¹, Enock Marita¹ | ¹Amref Health Africa, Kenya**

Background: Civil Society Organizations (CSOs) are key in addressing community challenges in resource poor settings. Majority however have inadequate technical, financial and managerial capacity to effectively respond to community health and their developmental challenges. Organizational Development and Systems strengthening (ODSS) is an evidence based approach to enhance the capacity of local organizations to design, implement and monitor and evaluate the impact of their interventions.

Description: Amref, through Global Fund grant piloted the integration of HIV/AIDs, Tuberculosis and Malaria community services in Emuhaya Sub-County, Vihiga County. Strengthening of community health systems by improving the capacity of implementing CSOs was necessary before this pilot.

Three officials from 40 CSOs underwent modular training covering 9 key areas: Project management; leadership and governance; stakeholder involvement; financial resource management; administration and human resource management; networking and advocacy; knowledge management; monitoring and evaluation; and sustainability. Training methods included presentations, open sharing and group work. Pre and post training test measuring the participants' understanding of the nine concepts was administered. Scales of measurement were: No idea, Vague, Well and Very Well. An analysis of the test scores for each of the modules was done to determine the effectiveness of the training.

Lessons learnt: There was significant change ($p < 0.05$) in knowledge of participants in all the nine modules after the training. Participants who were fully conversant with: project management increased from 18.2% to 43.9%; leadership and governance from 20.8% to 48.8%; stakeholder involvement from 31.8% to 68.3%; financial resource management from 16.3% to 48.8%; administration and human resource management from 13.6% to 48.8%; networking and advocacy from 43.2% to 63.4%; knowledge management from 20.5% to 58.5%; monitoring and evaluation from 13.6% to 63.4%; and sustainability from 2.4% to 51.2%.

Conclusion: ODSS approach can effectively enhance CSOs' capacity to implement health projects in resource limited settings.

TUPE86

Selection process of Sub Recipients to implement Community Case Management of Malaria – A case study of Global Fund Malaria in Western Kenya by Amref; **Lilian Manyonge | Amref Health Africa in Kenya**

Background: Sub recipients (SRs) selection process by the Principal Recipient (PR) is critical in ensuring successful grant implementation. Different Non-state actors use different approaches in the selection process based on project requirements. This study documents the SR selection process adopted by Amref for the Global Fund (GF) Malaria project.

Description: Amref successfully bid to be a Non-state Actor PR for the GF grant and was required to identify Sub recipients. It set out to competitively select SRs to implement Community Case Management of Malaria in ten counties in Western Kenya. The processes included an advertisement requesting for proposals and the establishment of an Independent Review Panel (IRP) which constituted 14 members with expertise in different fields. IRP members were drawn from organizations that had not applied to implement the grant. The IRP used a three-stage process comprising of a preliminary review of all proposals entailing verification of six governance mandatory requirements, technical review of all proposals that passed the mandatory stage and finally a field visit to undertake capacity assessment of the organizations.

The IRP made recommendations to the MICC for consideration. Upon ratification, the recommended organizations were then endorsed by KCM as the duly selected SRs.

Lessons Learnt: A structured three-stage process ensured transparency and objectivity in SR selection.

Recommendation: This method is recommended for the selection of sub-recipients due to its well outlined processes and would be useful for other implementing partners.

TUPE87

A primary healthcare service delivery design with embedded standard data collection algorithms; **Stephen Omondi Odindo¹, Biset Ndombi¹ | ¹Living Goods, Kenya**

Issues: A healthy society relies on preventive health, early diagnosis, and quality treatment. Unfortunately, despite exponential advancements in healthcare technologies, many healthcare systems around the world are still limited by a shortage of skilled community health workers (CHWs) and data quality challenges.

Description: Living Goods (LG) is a nonprofit community health organization that embraces innovation and entrepreneurship in driving impact at scale through the roll-out of community health interventions geared at maternal and child health. LG implements integrated community case management (iCCM) of childhood illness in low-income settings. The iCCM workflow used by LG is embedded in a mobile application. This application provides assessment and decision support for CHWs while giving actionable analytics for managers. The data collection is fused into service delivery, thus reducing work pressure in other levels of healthcare while still contributing to better health outcomes.

Lessons learned: An independent randomized control trial carried out by leading researchers from MIT, Yale, and Stockholm University between 2011 and 2013 showed that LG's digitally-empowered CHW model is reducing under-five mortality by over 27%. A similar effect was observed on infant and neonatal mortality. Despite these results, we still have cases of unreliable self-reporting, lost or illegible paper-based referral sheets, late or no follow-up on counter-referrals, and general loss due to other competing options, like traditional healers.

Next steps: LG has created a Community Health Innovation Network (IN) to research, test, and demonstrate the viability of community-based technical innovations that can generate systemic breakthroughs in how healthcare is delivered in the developing world. IN is conducting rapid research, testing, and human-centered design on a range of promising new tech initiatives, including a closed-loop system for iCCM and digitized referrals and followup for antenatal and postnatal care.

TUPE88

Gearing towards Universal Health Coverage through Identifying and Addressing County Health Management Team's Performance Gaps in Samburu County, Kenya; **Isaac Ntwiga¹, Gilbert Wangalwa¹, Mirriam Chege¹ | ¹Amref Health Africa, Kenya**

Background: To achieve the Universal Health Coverage goals the health sector requires a robust leadership with capacity needs objectively identified and addressed. The study aimed to develop a shared understanding of current capacity of Samburu County Health Management Team (CHMT) in order to analyze gaps and inform responsive capacity building strategies

Methods: This phased cross-sectional county level assessment examined county health management team's capacity relative to the six World Health Organization health system building blocks. A purposive sampling strategy was used to identify respondents including CHMT, SCHMT, and county officers from health facilities most informed on county health leadership and programming. The assessment utilized an organizational capacity assessment (OCA) tool developed by the USAID's Office of Health Population and Nutrition and included health investment areas in the Kenya Health Policy and Kenya Health Sector Strategic and Investment Plan. The CHMT and high volume health facilities utilized the OCA tool for a self-assessment to determine their level of performance. Discussions, consensus building and validation informed the score to assign for each standard and agreed on the findings. Focus group discussions and panel discussions facilitated joint discussion from all participants enhancing objectivity in consensus-building. The WHO building blocks served as the analytical domains providing a format for presenting the findings. An automated spreadsheet was designed for data entry and analysis. A fourpoint Likert scale ranked each standard, while a five-point Likert scale provided overall rank per domain.

Results: Samburu County scored overall 33% indicating limited capacity requiring significant support across the whole health system. The highest scored domain was Governance and Legislative Framework which scored 56.3% and the lowest scored domain was Research and Development which scored 8.3%.

Conclusion: Significant gaps identified across the six domains were utilized to develop a Capacity Development Plan. To achieve UHC and CHMTs need to have their capacity gaps identified and addressed

TUPE89

Sharing knowledge in post bachelor education for health professionals; **Ruud Heijnen | Zuyd University of Applied Sciences, The Netherlands**

Introduction: ZUYD University of Applied Sciences is a renowned Dutch institute when it comes to training a wide variety of health professionals. Based on two decades of international experiences in capacity building projects, we decided to develop a flexible and state of the art post bachelor program for health professionals. The ADVANCED HEALTH CARE program is an inter-professional program for international students to strengthen their competencies to be a health care leader and a role model in their profession. We expect graduates be critical thinkers who are able to drive health care innovation and to link scientific knowledge and professional practice.

Description: The program has been developed by content experts from ZUYD and one of its partners: PXL University College in Hasselt, Belgium. All involved experts had gained international and intercultural experiences. The program comprised 8 modules like Technology in care, Health promotion, Innovation, Leadership, Quality assurance, Project- and change management, Inter professional health care. Two batches of world-wide international students have participated successfully since 2016.

It is the aim of ZUYD to find worldwide partnerships to join forces in the program (re)development and execution so that the quality will be improved and more professionals can benefit from the outcomes of the program. Amref International University is likely to become one of our partners to share and offer the expertise available.

During the presentation the origin, structure and the content of the program will be explained, next to our future ambitions. Your critical feedback and questions will be highly valued during the discussion.

TUPE90

Trash, cash to health outcomes: unlocking potentials through end-of-life waste entrepreneurship. a case of Taka Ni Mali "Waste is Wealth" Project in Dar es Salaam; **Mturi James Mturi | Amref Health Africa, Tanzania**

Issues: Frequent outbreak of communicable diseases in Dar es Salaam city is caused by limited access to solid waste collection services in unplanned settlements, where the majority poor urban and vulnerable communities reside. Diarrhea still appears in the top five causes of under-5 mortality and morbid in Tanzania with a prevalence of 32.7 in Dar es Salaam. Taka Ni Mali project is implemented on the aim of improving health and livelihoods of women, youth and vulnerable population through leveraging pro-poor technology and innovative waste enterprise models that accelerate access to improved urban sanitation.

Project Description: The project, with financial support from Madrid City Hall in Spain, is implemented in 4- wards of Ilala Municipal in Dar es Salaam, Tanzania, with the target population of 100,200 people. The project had managed to create awareness to 982 people across government officials, private sectors and communities on transformative solid waste end-of-life cycle management.

Lessons learnt: Solid waste end-of-life cycle entrepreneurship had resulted into remarkable public-private partnership and income generation especially to women entrepreneurs. For instance, waste recycling into charcoal accelerated solid waste separation and removal from household level increased from 40% during baseline study to 80%. Expected medium term outcomes include clean environments at households and increased by 150% of monthly revenue collection by women groups.

Next steps: The project intends to scale up and prioritizing equity access to improved sanitation for the urban poor communities. This will be done through increased private-public partnership and innovative health financing models, which have multi-pronged impacts towards universal health coverage.

TUPE91

Role of leadership in the implementation of low cost high impact invention Kangaroo Mother Care corner (KMC): case study of Kanungu H C IV Uganda; **Sekimpi Robert Harrison¹, Heph Kwesiga², Emily Tumwakire², Tonny Kapsandui¹ | ¹Amref Health Africa, Uganda, ²Kanungu District, Uganda**

Background: Neonatal mortality is still very high in Uganda contributing 62.8% of the deaths for children under 5 years (UDHS, 2016) and Kanungu district in south western Uganda is among the high contributors. Pre-maturity is a big contributor to neonatal death rates. Pre-term babies require management using the high impact approach: KMC. Therefore, the Kanungu HC IV health workers improvement team led by the in charge of the ward initiated a Quality Improvement (QI) project to establish and monitor the KMC Corner.

Methods: The QI team identified a room for KMC Corner. With the leadership of both facility and maternity in-charges, the facility availed two beds with mattresses and running water was availed at the corner. The mothers were asked to bring along blankets and some bedsheets. USAID RHITES SW project provided technical assistance in how the care is provided. Staff owned the initiative and sustained the services.

Results: Two neonates, each aged less than a week, were saved following self-referral with typical premature signs: with low birth weight. KMC was provided and they both gained body weight and started sucking well their mothers' breast milk within only two weeks.

Conclusion: Leadership is key in promoting KMC, among other services. The desperate mothers seem to prefer this intervention because they are allowed to be with their neonates/babies on their mothers' bodies. It is importance to engage facility leadership to take count and lead implementation of such high impact and low cost interventions such as KMC.

TUPE92

Bridging The Gap: Enhancing Knowledge among Healthcare workers Through ELearning a case of Amref Kibera Reach90 Project.

Kennedy Mwathi Gathu | Amref Health Africa, Kenya

Background: According to Train Smart Training System only 28% of Healthcare providers in Kenya had been trained on the Revised Monitoring and Evaluation Tools, however the advancement in Technology has allowed different innovative applications, learning techniques to be used especially among the Health Care workers in the continual changing medical field. Covering 2 sub-counties Amref Kibera with over 200 facility based staff, serves over 11,700 patients within the 9 sites, With such high burden, Constant improvement of Staff skills through offsite training has been difficult with few staff accessing such training which affects the quality of care given to the patients Many online courses have low completion rate. But improvement noted with introduction of facility based e-champion (a tech-skilled staff trained on supporting staff). How a well-coordinated E-learning platform can bridge the Skills Gap among Health care workers was the question in mind.

Description: A e-champion was mentored who in return deployed 115 healthcare workers representing different cadres all working in 9 Amref Kibera sites in an eLearning platform that was developed and deployed to host the National HIV M&E tools eLearning course in June 2018, The course took 30 days. The content mirrors the HIV M&E tools training course that was designed and delivered via face to face model of training.

Lesson Learned: With leverage use of technology contributed to 100% of accountability of all staff enrolled, daily interaction using sms, WhatsApp and individual phone calls, Out of 115, staff, 104(89%) completed while 11(9%) attrition due to completing work and personal schedules. With ELearning 90% of all our staffs are trained on new tools without stepping out of the facility.

Conclusion: This model is an ideal approach to learning and capacity building for optimizing service delivery. Use of WhatsApp, champions Mentors with team approach helps increase completion rate and reduce drop out.

TUPE93

Exploring quality in post-rape care service provision; **Leso Munala¹, Emily Hohenshell¹ | ¹St. Catherine University, USA**

Introduction: Sexual violence is a major public health and human rights concern worldwide and in Kenya. One of the most prevalent violent crimes committed in Kenya is rape. Research suggests that between 40% and 50% of women in Kenya have been subjected to some form of violence in their lives, with a nationwide study showing that 25% of women between the ages of 12 and 24 reported having lost their virginities due to forceful or coercive sex.

Methods: I conducted a study that examined the experiences of practitioners facing the challenges of providing services to female survivors of sexual violence in Kenya. Specifically, the study examined how health practitioners understand their experience in responding to the needs of sexual violence survivors, how they view these women, in what ways they are helping them to heal, and in what ways the health system fails to help these women.

In-depth interviews were conducted with 28 health practitioners, from eight post-rape care facilities located in Nairobi, Kenya. The study documented a myriad of details about the working conditions of the practitioners, the problems they face, and the quality of services they provide.

Results: The results revealed three findings that were particularly salient and significant. An explanation for the occurrence of these disparate results points to common origins in social structural inequities driven by the global political economic policies that perpetuate poverty and dependency throughout Africa and the developing world.

Conclusion: The issues reflected in the results are grounded in social structural inequities driven by the global political economic policies that perpetuate poverty and dependency throughout Africa and the developing world. The results of this study have many important implications for improving the quality of services provided to rape survivors in Kenya.

TUPE94

Using Family Health Groups to Improve Integrated Maternal, Reproductive and Child Health outcome indicators in Rukiga district: A Case Study for Mparo HC IV; **Musasizi Veneranda¹, Ahabwe Davis¹, Jackie Muyama¹, Gordon Tugume¹, Julius Mugaya¹ | ¹Amref Health Africa, Uganda**

Introduction: Despite the presence of peer educators and Village Health Teams that were to bridge a community gap for mobilization, referral and follow up, reproductive and maternal service utilization remained low which necessitated an alternative approach of integrating these services. With the technical support of USAID RHITES SW project and oversight assistance of the district quality improvement team, Mparo HC IV Quality Improvement Team, took up the family health group initiative as a strategic shift from facility to community based interventions to improve reproductive and maternal services utilisation in the community.

Description: In February 2018, USAID RHITES SW supported formation of Family health Groups (FHG) at village level following the training of 15 peer facilitators and 18 peer supervisors who did village mapping of pregnant mothers and lactating mothers with their babies below 6 months. A schedule for the sessions was made, constituted the FHG where services were provided including; health education, nutrition assessment, and basic laboratory investigations like HTS & HB, family planning services, postnatal care and immunization. Data analysis of records was done to track progress in the indicators on a monthly basis. Support supervision supporting community components provided technical support during Food demonstrations, long term F/ Planning insertions, Nutrition assessment, EID and immunization.

Lessons learnt: Noted tremendous implants uptake up to 94%, removal of implants 68% done during the sessions. 1st ANC improved from 29% to 78.4%. Post-natal utilization improved from 46% to 68% and four hard to reach facilities improved from category 4 to category 1 of the RED/REC Immunization categorization. Having trained midwives integrating MCH services during Family Health Group sessions brings services nearer to the community members and improves uptake and utilization.

Conclusion: MCH service entry through community structures improves facility MCH service utilization. Peer facilitators bridged information gaps among community members.

TUPE95

Assessment of Makueni County healthcare workers' capacity to acquire, summarize and adopt research evidence for decision making processes, Kenya; **James Ngumo Kariuki | Kenya Medical Research Institute, Kenya**

Introduction: There has been increasing momentum towards evidence-informed health systems since early 1990s. The need to bridge research with policy and decision-making has been recognized for a long time. The objective was to assess Makueni County healthcare workers' capacity to acquire, summarize and adopt research evidence towards improving health outcomes.

Methods: A mixed-method (sequential) study design was used. The study was carried out in all public hospitals in Makueni County, Kenya. Study respondents were hospital clinical and administrative staff. Semi-structured questionnaire was administered to staff on duty. In qualitative arm, purposive sampling was used to selected respondents for focus group discussion. Study limitation: Doctors / specialists were not readily available citing heavy workload. This affected the qualitative discussions.

Findings: Respondents had 75.2% reported lacking time, 68.6% had no incentives, while 71.4% lacked necessary resources. Respondents had 49% using formal networks to exchange ideas, experiences and best practices. 28% could appraise publications. 38% could evaluate reliability of specific research outputs. 21% could in one document, synthesize research messages. 23% could communicate research results on key issues to decision makers. Partnerships engagement cited to potentially increase validity and acceptability of the research evidence into policy and practice. 40.3% reported that decision makers gave formal consideration to recommendations from staff who developed/ synthesized high quality and relevant research especially evidence that address local health issues.

Conclusion: Makueni County health workers have untapped capacity to acquire, summarize and adopt research evidence. Most of the issues if capacity is developed, could probably facility change in generation, demand and sustained use of research evidence in Makueni County. Capacity development for research evidence uptake needs to be problem-based, participatory, prolonged and supportive environment, not just training but also the use of both participatory and problem-based learning

TUPE96

Strengthening Medical Specialist outreach services to improve health access for rural based communities –Experience of Kilimanjaro, Tanzania; **Johnson Mali Yokoyana | PharmAccess International, Tanzania**

Background: Access to specialized medical professionals remains a challenge to most Tanzanians. Most specialized medical personnel are based at consultant hospitals which are few to adequately address existing needs. From 2011 to 2016 PharmAccess International- PAI, supported outreach program involving Medical specialist from Kilimanjaro Christian Medical Centre-KCMC, one of four consultant hospitals available. The outreach visits were done to selected health facilities including dispensaries, health centers and primary level hospitals in rural areas. The initiative aimed at improving access for low income communities and building capacity of health staff in visited lower level facilities. PharmAccess support for this program ended in 2016, however some facilities maintained the visits on their own arrangement with KCMC. The objective was to determine which facilities managed to sustain the medical specialist visits and extent to which the visits benefits patients and visited facilities.

Methods: Health facilities that participated in the program during PharmAccess support were contacted. Those who managed to maintain the visits post pharmAccess funding support were identified and managed to provide information on current type of visiting specialist, activities undertaken by visiting Doctors and perceived value of visits to health care staff and patients.

Results: Four(20%) out of twenty health facilities managed to maintain specialist visits till today, both primary level hospitals. Visiting specialists includes Physicians, Gynecologist, Surgeons, and Pediatricians. Average of 250 referral cases are attended by visiting specialist in a month. 90% of them are completely managed averting referrals outside their primary facilities. Patients contribute a little to consult a specialist. Interactive learning sessions involving visiting specialists and local staff are also done on each visit.

Conclusion: Rural based facilities especially hospitals can venture with consultant hospitals to enable visit of specialized professionals that would improve access and reduce referral cost burden to communities while strengthening local staff clinical capacity.

TUPE97

Blended Learning in Public Health Science Programs in Africa: Challenges and Benefits; **Gaspard Mucundanyi | New Mexico State University, USA**

Introduction: Africa continent faces a shortage of healthcare providers. Universities in Africa started blended learning programs to increase the number of healthcare providers. This poster uses a systematic review to analyze the existing literature on the challenges and benefits of African Universities offering health sciences programs through blended learning.

Methods: The author reviewed the literature review using a digital library of the New Mexico State University. Three databases, CINAHL Complete, HealthSource: Nursing/Academic Edition, and Academic Search Complete, were selected at the same time. The search term “blended learning in public health sciences” yielded 6,729 articles. Search terms were connecte using the Boolean Operators “AND” to add keyword “Africa” and produced 143 articles. For focusing on the recent articles published in the last 5 years, the author changed the year of publication from 2013 to 2018. The search provided 92 articles in three categories, Full Text, Reference Available, and Scholarly (Peer Reviewed Journals). Then, the author selected 52 articles with Full text. Inclusion criteria were alignment with the research question, participants: faculty or students, type of program: African university program or partnership. Exclusion criteria were fully online learning and fully face-to-face. Only 10 articles met the criteria.

Results: Seven studies were supported by projects and South Africa participated in 6 of them while 3 remaining were done at two universities in South Africa. Lesson learned: Blended learning reduced national and local health inequalities, provided professional development to faculty, and was a new medium for students to learn. However, blended learning had challenges such as heavy workload, time management, and lack of infrastructure and technical support.

Conclusion: Bandwidth penetration in Africa is expanding. There are also free learning management systems namely Moodle and Google Classroom that African universities may use to foster universal health care through blended learning programs. South Africa may assist other countries.

TUPE98

Implementation of gender mainstreaming guidelines to strengthen health workforce management for quality health services; **Jeniffer Kiema¹, Roselyn Mukabana², Mathew Thuku¹, Janet Muriuki¹ | ¹Intrahealth International, Kenya, ²Nairobi City County, Kenya**

Issue: Kenya's Human Resource for Health (HRH) Strategic Plan 2014-2018 outlines the need for gender responsiveness, a rights-based approach and equitable deployment of health workers (HWs). Currently, Nairobi City County (NCC) has 3,869 HWs, 70% female and 30% male. However, management positions at county and sub-county level were predominately male dominated.

Description: The NCC Departments of Health & Gender in collaboration with the USAIDfunded HRH Kenya Mechanism, led by IntraHealth International, established a gender mainstreaming technical working group (TWG) to spearhead development of gender mainstreaming guidelines to achieve Sustainable Development Goal (SDG) 5 on gender equality. A consultative policy development process amongst various stakeholders was undertaken. Implementation of the guidelines aims at creating an enabling environment for access to quality health services for all; availing a health workforce that is aligned to gender dynamics in health-seeking behaviors; promoting gender sensitive health workforce management for staff motivation; and improving HRH management systems for everyone to thrive in.

Lessons Learnt: NCC is the first of Kenya's 47 counties to develop and institutionalize a gender TWG at county and sub-county levels. The implementation of the guideline advocated for gender equity and equality in service delivery; addressing barriers in cultural norms and practices that inhibit health-seeking by availing a workforce aligned to these realities as well as a gender-balanced county health management team (CHMT). An assessment of the CHMT (30 persons) following re-constitution to align to the gender mainstreaming policy revealed that gender balance was achieved at a ratio of 7:8 femalesto-males. Deputy Directors (2), medical superintendents (4), and sub-county medical officer of health (10) positions stood at 1:1.

Next steps: Gender equality aimed at building an inclusive health workforce intended to positively influence access to health services and accelerate universal health coverage.

TUPE99

Assistive Technology: A means of improving the quality and access to health care for children with disabilities; **Mary Munyao | Connect Families Ability, Kenya**

Introduction: Lack of assistive technology (AT) often excludes people from social participation and makes it difficult for them to access social services. The use of assistive technology by children with disabilities (CWD) improves their health and helps them to access health care services with ease. The need for formal health and support services can be reduced by use of AT.

Description: Connect Families Ability (CFA) program focuses on supporting CWD to receive AT and access social services such as health care. The program interventions are through creating awareness on use of AT, mobilizing funds to acquire AT, training and supporting care-givers to receive AT for their children.

Lessons learnt: Lessons learnt from the program show that some caregivers receive unsuitable AT for their children, several caregivers do not acquire AT for their children due to lack of finances. Those children who received AT showed improvement in their health and were able to be included and participate in their communities. Statistics show that only one in ten people in need of AT had access to assistive products. In developing countries only five to fifteen percent of AT needs were met.

Next steps: To close this gap of access to AT by CWD the program recommendations include: increase awareness and training on use and benefits of A.T, provide sustainable access and production of AT and advocate for low cost and funding of A.T

TUPE100

Member identity and employee performance: What happens when staff members state 'We are not inspired?'; **Bigirwa Patrick**
| Amref Health Africa, Uganda

Background: This study contributes to track 2.2 Strengthening human resources for health, and health leadership management and governance, to improve capacity for delivering quality health services. The study assessed the effect of member identity on employee performance at Amref Health Africa in Uganda, with an aim of mitigating the low staff performance. Employee performance was inadequate, despite the immense efforts the organisation had put in place: recruiting high calibre staff, remunerating staff well, supervising and appraising staff, and timely payment of staff salaries by every 25th day of the month. Member Identity was assumed as the possible cause of these incongruities, and hence the need for this study.

Methods: A cross sectional survey design was employed and focused on Amref employees in Uganda, a structured questionnaire was administered to 90 employees, together with in-depth interviews targeting key staff. Quantitative data was analysed using SPSS, and regression and correlation analysis were performed. Qualitative data was analysed manually using thematic analysis.

Results: Majority (47.7%) of respondents were 30–39 years hence a young working force. A positive relationship between member identity and employee performance ($r= 0.035$ & $p=0.040$) was observed. Majority (57%) of respondents believed that staff identified themselves more with the organization than their individual jobs. However, a few (20%) felt they were not inspired to confirm to organizational values, and their personal goals not aligned to organizational goals, resulting in low job satisfaction, mistrust, and fear of management.

Conclusions and Recommendations: Management and staff to approach problem solving with a questioning mind, thus each party playing a role in fostering organization's vision and mission.

TUPE101

The A, B, C...of successful ICT4D adoption and scale-up in RMNCAH Health programming in Uganda, A case study of Hoima District MCH mHealth Programme; **Joel Fred Nsumba¹, Francis Olok¹, Tonny Kapsanduil¹ | ¹Amref Health Africa, Uganda**

Introduction: While rolling or intending to roll out an ICT4D based intervention like mHealth in health care, conducting a comprehensive baseline and scale up assessment is vital for establishing and prioritizing of key interventional areas, planning and designing well mapped strategies to pursue targeted interventions guaranteed potential for scaling, interoperability and achieving long-term sustainability.

These considerations have seemingly failed to play this pivotal role since many interventions are abandoned at concept phase or ending up in the cyclic endemic effect of “pilotosis” (where interventions never live beyond the pilot phase) in Developing Countries (DCs). DCs are characterized by an endless list of overlapping multifaceted structural and infrastructural challenges. Thus this study set out to demystify those challenges and propose solutions to address the identified gaps.

Methods: A comparative exploratory study was conducted in the district of Hoima to explore the readiness of scale-up for the mHealth interventions based on the 6 core axes of the WHO MARPs toolkit among the multi-faceted structural and infrastructural challenges to scaling up of mHealth innovations. The study covered the entire district taking into consideration all the pertinent stakeholders.

Results: The finding of this study indicate that key consideration for the parameters of scale, strategic partnerships, Financial Health, Technology and Architecture, Operations and monitoring and evaluation need to need to be put in place if we are to adopt and scale-up a viable mHealth innovation in Health programming. Averagely, all these considerations were below average.

Conclusions & Recommendations: This presentation thus recommends the utilization of the proven multifaceted Systems Analysis model for base lining and scale-up assessment for mHealth as an ICT4D intervention which will yield the desired A,B,C...that will guide the adoption, deployment, scale-up and management of results’ based ICT4D interventions that guarantee the highest returns on investment in RMNCAH programming in DCs.

TUPE102

The outcome of patients on hemodialysis at University Teaching Hospital Of Kigali: A retrospective analytical study on patients with acute and chronic renal failure; **Leopold Bitunguhari¹, Timothée Twahirwa², Ebenezer Murengezi³, Jean Paul Rwabihama¹, Janvier Mukiza⁴ | ¹University of Rwanda, Rwanda, ²University Teaching hospital, Rwanda, ³Rwanda Biomedical Center, Kigali, Rwanda, ⁴University of Gitwe, Rwanda**

Introduction: Kidney dysfunction is a public health issue in sub-saharian region. The aim of this study was to describe the demographic data and the outcome of patients who received haemodialysis at a referral hospital in Rwanda.

Methods: Data were retrospectively collected and analysed on files of patients treated in the hemodialysis unit at university teaching hospital of Kigali during a period of September 2014 to march 2017. We report the demographic, clinical data and the survival of patients who underwent hemodialysis.

Results: We identified 152 patients who received haemodialysis treatment. Seventy-eight (51.3%) were identified to have acute kidney injury; 74 (48.7%) were designated as chronic kidney failure. The main risk factors for hemodialysis treatment were hypertension 73 (48%), diabetes 71 (46.7%), eclampsia 20 (13.2%), and volume deficit 24 (15.8%). Hyperkalaemia, pulmonary edema, encephalopathy and other uremic symptoms were present in 39-43% of patients and were the most common indications for haemodialysis. Seventy patients (46%) died. Encephalopathy and poor oxygen saturation were independent risk factors for death. Most patients died within 4 months after haemodialysis initiation. Forty-five patients (20.6%) could not afford the usual provision of 3 sessions of hemodialysis per week and received less frequent dialysis.

Conclusion: There is high mortality in patients referred for haemodialysis. Almost half of the patients have chronic renal failure and require permanent renal replacement therapy. Many patients limited therapy due to financial reasons.

TUPE103

Learning exchange visits and village health teams retention in selected health facilities of Kyankwanzi and Nakaseke Districts in Central Uganda; **James Teba¹, Bigirwa June Patrick¹, Zamzam Yusuf Asianzu¹ | ¹Amref Health Africa, Uganda**

Issue: Uganda's Village Health Teams (VHTs) strategy was initiated to deliver basic health care services and education. Evidence demonstrates their positive impact in hard to reach populations. As documented in the Community Health Extension Workers strategy in Uganda, VHT strategy became ineffective and unsustainable over a period because it was hinged on volunteerism as main pillar and therefore poorly resourced. The introduction of learning exchange visits to other more effective VHT structures stimulated and inspired VHTs. The visits broadened their horizons and enabled them to explore creative alternative solutions which gradually improved retention.

Description: Based on baseline data, Amref Health Africa Sanyu Iy'amuzadde project supported two learning exchange visits to VHT members. Through the districts leadership and health facility managers, VHTs were selected according to areas served, active participation, willingness to practice acquired knowledge. 70 VHTs participated and particularly acquired hands-on skills and knowledge in income generating activities (IGAs), health education using available resources, among others. As a result of the visits, two active saving schemes, handcraft and liquid soap schemes were formed. IGAs became famous with increasing community membership. The more the VHTs remained serving in health care, the more the IGAs are strengthened and guaranteed.

Lesson learnt: Learning exchange visits offer practical demonstration, increase opportunities for socioeconomic empowerment and instills saving culture. Beneficiaries become role models, and advocates for health change in their community.

Next step: Seek for opportunities for learning exchange visits to more beneficiaries. Scale up socioeconomic concepts to benefit other communities.

TUPE104

Delivering an offline virtual microscope based malaria microscopy in-service training course to improve performance in malaria diagnosis; **Eddie Machache | Amref International University, Kenya**

Background: Malaria microscopy plays a crucial role in patient care and surveillance especially in malaria pre-elimination countries. However, the accuracy of routine malaria microscopy is often poor. A model for competency assessment of malaria microscopists was successfully rolled out by WHO WPRO from 2003 and WHO AFRO from 2009. These assessments demonstrated that targeted refresher training can bring rapid improvement in competency. To prepare for these assessments, we developed an in-service malaria microscopy e-learning course to provide accessible and affordable malaria microscopy refresher training based on WHO standards.

Methods: Global experts in malaria microscopy contributed to the course development, based on Amref's workshop-based refresher training course. The course addresses global malaria epidemiology; blood collection, preparation and staining of blood films; blood film examination; non-microscopic methods for malaria diagnosis; and quality malaria diagnosis. A bank of malaria blood film images, other blood parasites and artefacts are included in the course, viewed on-screen using virtual microscopy software. A pilot of the full course was distributed in 2017 to over 300 participants in 24 countries for final comments before completing the course.

Results: A total of 154 participants from 19 countries gave feedback. Mean years of service was 12.8 (\pm 8.9 SD). Overall satisfaction with the course was high, with 99% of participants agreeing that 1) delivery of the course content was effective, 2) structure and format improved their understanding, and 3) the course was relevant to their work. The time participants spent taking the course varied with a mean time of 18 hours. Challenges included difficulties with software installation and manoeuvring the virtual slides. Suggestions made by users were incorporated into the final version.

Conclusion: The impact of the course on skills as an alternative means for malaria microscopists to improve their skills and to prepare them for competency assessment programmes will be assessed.

TUPE105

Promoting malaria prevention and control by pupils in the Lake- Endemic Zone in Kenya; **Jacinta Kandie¹, Oule Jared¹, Marita Enock¹, Patrick Igunza¹ | ¹Amref Health Africa, Kenya**

Background: Malaria remains a major public health concern in Kenya with the lake-endemic zone having the highest prevalence (27%). Although most households (63%) own at least one long-lasting insecticidal net (LLIN), usage is still low at 48%. This prompted the ministry of health (MoH) in collaboration with the ministry of education (MoE) to identify the potential role pupils play in influencing prevention and control of malaria. The objective was to promote malaria prevention and control by increasing net use among pregnant women and school going children.

Description: In 2016, through sub-recipients, Amref implemented school health in the lake-endemic zone. After sensitization of MoH and MoE officials, 50% of sub counties selected 40 schools each to implement the innovation. New health-clubs were formed in schools lacking any while weak ones were strengthened. Pupils in class five to seven were recruited as club members and teachers sensitized. 22,636 pupils were sensitized on malaria prevention and control during health club sessions. At least five pupils per village adopted households for visitation during weekends to promote malaria prevention and control specifically on net usage. Pupils who gave regular feedback were nominated as ambassadors against malaria; one per health-club. During quarterly review meetings (QRM) they shared experiences while stakeholders assessed progress and took corrective action.

Lessons learnt: Increased malaria awareness in school resulted to a decline in absenteeism. The model enabled formation of school health-clubs where none existed. Recruitment of more pupils through peer training increased its footprint in the community and enabled pupils to easily access homes and reinforce promotion of malaria prevention and control in households. Inclusion of ambassadors in QRM enabled timely achievement of lessons learnt.

Conclusion: School pupils are instrumental change agents for health promotion activities. The results informed upscaling to six malaria endemic counties of the coast region.

TUPE106

First implementation of basic obstetric ultrasound by antenatal care providers at 18 health centers in Rwanda; **David Nzeyimana**
| **University of Rwanda, Rwanda**

Issues: In 2016 the World Health Organization added universal obstetric ultrasound (US) before 24 weeks gestation to its recommendations for antenatal care (ANC), primarily for the purpose of improved gestational age (GA) assessment. This is the first time obstetric US has been offered and evaluated at health centers in Rwanda.

Description: The Preterm Birth Initiative (PTBi)-Rwanda trial, which compares group ANC to standard ANC, also adds US capacity to 18 health centers. In 2017, representatives from the Rwanda Society of Radiologists trained 54 nurses and midwives in basic obstetric US. One ultrasound machine was provided to each of 18 study sites. Women are offered an US examination on the earliest date they present for ANC. The Rwanda Society of Radiologists and district radiographers provide ongoing supervision of these new US providers.

Lessons Learnt: As of August 28, 2018, the number of women who enrolled in ANC before 24 weeks gestation and consented to participate in this trial at the 18 study sites with US machines was 5895, and 1354 (23%) of them received US examinations by ANC providers. The mean time spent to complete an US examination was 15 minutes (range 4-30). One year after implementation, ANC providers trained in ultrasound performed at a competence level of 70-85%, according to their radiologist mentors. Post-training mentorship and opportunities to use skills acquired proved critical to reaching this level of competence. Mentors noted that ANC providers were overworked because the health centers are understaffed; this staff shortage affects the ANC providers' ability to practice and provide US examinations.

Next Steps: Basic obstetric US examination is feasible at the health center level but requires additional human resources in order to provide this service at the highest level of quality and equity.

TUPE107

Emergency health service model for refugees and host communities; an approach for improved health in Ofua zone, Arua District- Uganda; **James Nkale¹, Eric Ofonono¹, Patrick Kagurusi¹ | ¹Amref Health Africa, Uganda**

Background: The South Sudan Conflict has led to emergency of externally displaced populations in Rhino camp communities, Arua District. Ofua community has approximately 26,121 Refugees who are supported with the emergency response services. The refugee and host population are prone to health problems including malaria, diarrhea, malnutrition and respiratory tract infections. The Ofua health facility project was set up to supplement the constrained health system providing clinic based and community outreach services.

Methods: Over the period of six months (April to September 2018), a lower level health facility was set up, 11 staff recruited in partnership with DHT, and mentored in ICCM guidelines. A total of 70 VHTs were identified from the target population and trained in ICM and community nutrition education. Medical supplies were provided at the health facility and the VHTs equipped with screening SOPs, malaria diagnostic kits, antimalarial drugs, ORS, antibiotics.

Walk in patients were managed at the health facility, and community outreaches were done to screen, treat, give health education and refer complicated cases to the health facility.

Results: A total of 10,563 patients were treated over the six months. The commonest diseases being Malaria (51%), diarrhea among children (26%) and cough (12%). In all, 1074 children and mothers were screened and treated in their homes with 54 referrals to the health center. Health education was given to 7207 households and 4000 mosquito nets distributed.

Conclusion: The intervention has enabled early diagnosis and treatment at the facility and through the community approach, and timely referral. The community structure increase awareness, caters for cultural and ethnic/ language barriers to service access.

TUPE108

Increasing male partner HIV testing counselling (HTC) in Antenatal (ANC) at Kanyantorogo H C III, Kanungu District; **Turyahebwa Jackline¹, Ashimwe Anitah¹, Kembabazi milivar¹, Kembabazi Milivar¹, Musimenta Grace¹, Tumukurikire Alex¹, Tonny Kapsandui² | ¹Kanungu district local government, Uganda, ²Amref Health Africa, Uganda**

Background: Kanyantorogo is government Health Centre III in kanyantorogo Sub County in Kinkizi west health sub district Uganda, male partner testing at the facility was general low, however, it is known men influence the social, economic aspects of families, they predict their families wellbeing, conducting HIV counselling testing to men is one way of the ways on involving them in the affairs of their families, taking charge of preventive strategies for the HIV negatives or care and treatment of those HIV positive. Improvement Goal was to increase HTC among male partner attending in ANC from 15% in October 2016 to 100% in October 2017.

Description: The Facility started QI project was started in November 2016 on male partners testing for HIV in ANC, at this the main gap was lack of knowledge among midwives on male service packages. Midwives were oriented on male service package, VHT oriented in male services package, they created awareness in the community.

Lessons learnt: The percentage male partners tested started at 15% in November 2016, increased to 42% in December, then increased to 58% in January, 95% in February, In March the facility achieved 141% then dropped to 85% in April and May, Again June the facility achieved 137%. Males started to be actively at the facility and community through community dialogue, community linkage facilitators, there was a drop in April, May 85% because of out of stock of supplies ANC, however, with restocking in June there was a rise. Community awareness is key to improving partner testing in ANC Involvement of Community structures such as VHTs and community facilitators increase uptake of male partner testing.

Next steps: Continuous male packages should be conducted Continuous involvement of community leaders and VHTs to sensitize the community.

TUPE109

Comparative study on remuneration of CHWs in Kenya, Uganda and Zambia; **Paul Agina | Amref Health Africa**

Background: Sub Saharan Africa suffers the worst health worker shortages in the globe despite having the greatest burden of disease. Community Health Workers (CHWs) play a vital role in linking the under-served communities to the formal health systems improving the health outcomes in many communities. This cadre experiences high attrition rates in some areas affecting service to communities. The main objective of this study was to determine if they were remunerated by government in Kenya, Uganda and Zambia.

Methods: The study was a qualitative nature using purposive sampling with data collected from document review and key informants interviews of relevant stakeholders. Thematic analysis was done to ensure that responses from interviews and data from documents were grouped based on the predetermined study focus areas.

Results: In Kenya, since health is a devolved function, remuneration of CHVs is pegged to the willingness of individual counties to remunerate CHVs. This requires the passing of Community Health Service legislation by the county assembly for their recognition. In Zambia, there is no recommended remuneration package for CHWs. However, some of them received financial incentives for doing particular work for certain programs while others received non-monetary incentives. In Uganda, VHTs were not remunerated, they however received both monetary and nonmonetary incentives from either the districts or partners or both.

Conclusions and Recommendations: In the countries, the volunteers are not remunerated by government although some did receive some small support from NGOs. The important role played by the volunteers within their communities is not adequately recognized therefore no remuneration. All the actors in health should come together to jointly advocate for the remuneration of these volunteers so as to bridge the HRH gap and improve health outcomes towards the achievement of UHC

TUPE110

Sustainable nutrition improvement among refugee population and host communities in Adjumani District, Northern Uganda;
James Nkale¹, Tadius Tumwesigye¹, Joshua Owilli² | ¹Amref Health Africa, Uganda

Background: The refugee influx in Northern Uganda region has led to public health risks including malnutrition. In Adjumani District, there are about 222,970 refugees, 66% of whom are aged below 17 years, with nutritional deficiencies/ risks that affect school going and retention.

The supplementary Emergency Supplementary Feeding Program was set up to respond to refugee and Host Community Children with objectives of providing fortified supplementary foods to 12,000 children in schools, enhance nutrition education in schools and, improve basic food production among households in refugee settlements and host community in Adjumani district over the period May 2017 to August 2018.

Methods: Based on the enrolment volume, 10 schools were selected from the district, orientation meetings were held with teachers and food committees, food supplements were procured and distributed at the schools, demonstration gardens were introduced in the 10 schools, seeds and fruit seedlings were distributed to families with children aged under 5 years, and VHTs were trained as nutrition educators and supported to conduct door to door nutrition education in refugee settlements.

Results: Provision of a warm meal of food to 11,745 children led to reduced absenteeism (from 15% to 9%) and improved retention in school. A total of 210 VHT trained as nutrition educators, 2,449 individuals from 2,100 households were reached with nutrition sensitization and 600 households with malnourished children received seeds and seedlings. A total of 442 households have backyard gardens.

Conclusion: The project has supported retention in school by providing daily meals and food security by introducing backyard farming among refugee settlement communities. Home visits also serve to increase awareness and screen nutrition deficiency risks for children and pregnant mothers.

TUPE111

Rapid assessment of cancer prevention and control in Senegal; **Bara Ndiaye¹, Fatou Gaye¹, Mohamed El Bachir Lo¹, Alioune Diouf¹**
| ¹Amref Health Africa, Senegal

Background: This assessment was purposed around assessing the needs and capacity of health system to prevent and control cancers in Senegal. Specifically, it aimed at highlighting the gaps in cancer prevention and treatment by: determining the specific gaps for cancer prevention and control in Senegal and providing recommendations.

Methods: The WHO framework for health systems strengthening was used to analyze the main gaps. Key focus areas of the assessment were: i) leadership, management and governance ii) health workforce iii) service delivery iv) drugs, technologies and equipment v) financing and vi) health management information system. A number of in depth interviews with key actors and direct observations were held in collection of data.

Results: Leadership, Management and Governance: Senegal had developed strategic plan on NCD (2017-2019). The country also had a policy on reduction of tobacco in addition to a nutrition plan. Health workforce: The human shortage affects all the cancer specialties in particular for diagnosis. Service Delivery: lacked guidelines/protocol when it comes to prevention, early detection and cancer screening; inadequate diagnostic and treatment infrastructure. Drugs, technologies and equipment: The products were listed on the National List of Essential Drugs and Products, they hardly available for the patients and their care givers. Financing: a big impediment to the Government of Senegal in dealing with the burden of cancer. HMIS: lacks of a functional population based cancer registry; no data management system to track information concerning cancer.

Conclusions and Recommendations: Provide leadership and coordination of cancer prevention and control activities in Senegal, Develop national protocols for cancer treatment and care, Increase the quality and quantity of cancer health workforce, Establish a sustainable financing for cancer prevention and control

TUPE112

Aint easy being wheezy! Capacity strengthening for health workers to provided quality Asthma care and management; **Sarah Kosgei¹, Christopher Were², Bryson Sifuma¹, George Kimathi¹, Colleta Kiilu¹ | ¹Amref Health Africa, Kenya, ²GSK, Kenya**

Background: The Ministry of health (MOH) indicates that 10% of the population under 14 Years in Kenyan urban areas have Childhood Asthma. Asthma, one of the non-communicable diseases (NCDs) is not clearly classified in the MOH registers and hence the data is scanty. Frontline health workers have challenges in distinguishing asthma from other obstructive airway and respiratory illness like Tuberculosis and Pneumonia. This poses a clinical challenge for diagnosis, treatment and clinical audits. Through the NCD project, Amref Health Africa in partnership with GSK, trained health workers on diagnosis, management and control of Asthma towards quality management of asthma.

Methods: A blended training approach of face to face and e & m-Learning was used to train health workers on effective management of childhood Asthma. End term evaluation sought to find out the effect of training health workers on management and control of asthma. Multi-stage sampling approach in selecting households was adopted. Quantitative data was analyzed by descriptive statistics and bivariate analysis techniques using SPSS V.20 and qualitative data analyzed using NVivo 11.

Results: A total of 2613 health care workers were trained on childhood Asthma. Over 5,000 Asthma patients put on treatment. The health facility with appropriate Asthma management equipment and commodities increased from 24.7% to 37%. Reduced hospitalization due to asthma and 97% of patients were on appropriate inhaler controlled treatment. Asthma patients adhering to treatment improved from 52% to 77% and community members who knew signs of asthma improved from 25.5% to 92.2% with 88% aware of at least 3 asthma triggers.

Conclusion/Recommendation: Training of health workers and equipping clinics is essential towards quality Asthma care. Patient support groups are important for information sharing and health education and psycho-social support. There is need to strengthen tools for asthma diagnosis and management for decision making.

TUPE113

The Challenge fund model for stimulating innovations to accelerate progress towards universal health coverage: lessons from county innovation challenge fund in Kenya; **Kimani Karuga | Options, Kenya**

Issue: Kenya has made impressive progress in reducing maternal and child mortality. However, achievement of set targets remains elusive and many mothers and children continue to die due to preventable and easily curable causes. Despite strong political will and an enabling policy environment in support for universal health coverage, many health systems challenges continues to hamper real progress. These challenges call for new approaches and innovative solutions. Against a backdrop of dwindling funding and increasing focus on cost-effectiveness, how can donor funding be optimized to spur innovations and grow them to solutions at-scale?

Description: The County Innovation Challenge Fund (CICF), has invested in innovative ideas to improve maternal and newborn survival in Kenya. The fund seeks to unlock bottlenecks, catalyze change, and accelerate Kenya's progress towards better health outcomes for poor women and their families. The fund also supports scaling up successful innovations that have demonstrated a positive impact in reducing maternal and newborn mortality. The CICF has allocated funding to 19 projects through 15 innovations and four scale-up grants implemented in six counties in Kenya.

Using the three delay model as the conceptual framework, the innovations are designed to address access, demand and quality gaps that constrain delivery and utilization of maternal and newborn health services. To date, some of these projects are transforming service delivery while generating evidence on what works and what doesn't.

Lessons learnt: Compared to the conventional donor funding, the challenge fund model lends itself well to the endeavor of nurturing innovations. It is essential to ensure the ideation and design stages are participatory, thus tapping into local stakeholders' nuanced understanding of the context and encouraging local solutions to local problems.

Next steps: Scaling up what works requires strategic visioning and thoughtful navigation through complex paradigms within and without the health systems

TUPE114

Capacity-building village sanitation committees accelerates and sustains communities' open defecation free status; **Moses Saikomae Lengewa | Amref Health Africa, Kenya**

Background: The Kenya Sanitation and Hygiene Improvement Programme (K-SHIP) is funded by the Water Supply and Sanitation Collaborative Council-(WSSCC) through the Global Sanitation Fund (GSF) and implemented by Amref Health Africa in Kenya through 17 Local Implementing Partners (LIPs) in 11 Counties. The K-SHIP targets to reach over 1.92 million people with appropriate sanitation and hygiene interventions through the use of appropriate participatory sanitation and hygiene promotion approaches primarily Community Led Total Sanitation(CLTS) with the overarching goal to reduce the burden of disease resulting from poor sanitation and hygiene and improve the health outcomes of target communities.

Description: The K-SHIP has formed and trained 3685 village sanitation committees (VSCs) on CLTS. The formation of VSCs comes after 'triggering' for behavior change through a shame and disgust approach. However, early to mid-2016, the challenge was slow pace delivering villages ODF because capacity building of VSCs was not emphasised. After review of program progress in 2016, the program started capacity building VSCs on sanitation and hygiene processes in an innovative way. A 2-day training and on-job-orientation on CLTS incorporating Sanitation

Abstract ID: 562 for AHAIC 2019 (Auto-Generated November 29, 2018 4:04 pm) Copyright 2018 AHAIC 2019 powered by WPAabstracts Pro Marketing and Equity and Inclusion during post triggering follow-ups was done. This enabled the K-SHIP to achieve more ODF villages from 149 in 2016 to 461 in June 2018.

Lessons Learnt: VSCs are the cornerstone of delivering and sustaining ODF communities. Empowering VSCs has also proven to reduce the cost and period taken to deliver villages ODF.

Conclusions: To improve CLTS efficiency, sustainability and building up strong socio-economic-ODF slippage-free communities and hence improved health outcomes, proper capacity-building to VSCs and other community owned resource persons is necessary and this model can be replicated to contribute in achieving universal health coverage.

TUPE115

Community health systems strengthening: Opportunities and barriers for implementing integrated HIV, TB and malaria services at the community level in Kenya; **Sarah Karanja¹, Margaret Mungai¹, Samuel Muhula¹, Benson Ulo¹, George Oele¹, Jared Oule¹ | ¹Amref Health Africa, Kenya**

Background: Kenya and most developing nations face a dire shortage of human resources for health, a situation that is worsened by the overwhelming demands of HIV/AIDS, tuberculosis and malaria. Community health volunteers (CHVs) play a role in creating demand for health care services, disease prevention, treatment and care. However various partners have implemented vertical initiatives at community level which has contributed to fragmented and unsustainable health service delivery. We conducted a baseline survey to assess opportunities and barriers for implementing integrated HIV, TB and malaria services at community level.

Methods: This was a cross-sectional study with CHVs working in Vihiga, Homabay and Kwale counties in Kenya. Systematic sampling with a random start was used to select study participants and a structured questionnaire was administered. Data was analyzed descriptively using frequencies and proportions.

Results: A total of 312 CHVs were interviewed with 70% (217) being female. The most commonly offered service at the community level was referral for HIV, TB and malaria services at 77%, 70% and 74% respectively. CHVs reported they did not lack household register and service delivery book while 76.7% of them reported stock out of the referral tool. Benefits of being a CHV included training received (86%), community recognition (76%), and monthly stipend (52%). Around 71% (221) of CHVs reported they were adequately trained, 91% (282) understood their duties, 80% (249) were able to perform duties as required, 82% (254) were satisfied with cooperation from healthcare providers, 87% (270) were able to report work correctly, and 81% (253) found reporting tools easy to use. Only 57% (178) reported being provided with necessary resources while 76% (237) were not satisfied with stipend received.

Conclusion: Gaps in inadequate stipend, stock-out of tools and lack of necessary resources need to be addressed prior to implementation of the integrated program.

TUPE116

Outcomes of scaling up hypertension screening and linkage to treatment in three counties in Kenya; **Lilian Mbau¹, Tecla Namusonge¹**
¹Amref Health Africa, Kenya

Introduction: Hypertension increases risk of cardiovascular Disease (CVD) morbidity and mortality and is an important cause of premature death. In Kenya, 24% of adults have High Blood Pressure (HBP) or are currently on medication. More than half of Kenyans have never been screened and 92% of patients are not on treatment. The medical, economic, and human costs of untreated HPB are enormous. With the shortage of human resources hypertension screening is not carried out routinely at health facilities. The objective of this study is to document outcomes of hypertension screening and linkage to treatment in three counties in Kenya.

Methods: The Healthy Heart Africa project- has been supporting the Ministry of Health (MoH) to provide hypertension screening and treatment in Nairobi, Kiambu and Kirinyaga counties since April 2015. Through task-sharing approach, a total of 279 Community Health Volunteers (CHV) were trained to provide hypertension screening at the health facility and community level and to link those with HBP for diagnosis and treatment by trained health workers. Routinely collected data for the period April 2015 to March 2018 December was analysed retrospectively.

Results: Overall 411,757 participants were screened during this period, 281,255 (68%) females and 242,943 (59%) aged below 40 years. Majority (75%) had their initial screening done at a health facility. A total of 72,999 (18%) had HBP at initial screening and 40% were pre-hypertensive. A total of 14,290 (20%) with HBP were successfully linked to care and treatment.

Conclusion and recommendations: Task-sharing to CHVs played a critical role in scaling up hypertension awareness and screening. Similar programs should incorporate strategies to reach males with hypertension services and improve linkage to treatment. Urgent prevention initiatives are needed to addressing the high rates of pre-hypertension.

TUPE117

Emergency health service model for refugees and host communities; an approach for improved health in Ofua zone, Arua District- Uganda; **James Nkale¹, Patrick Kagurus¹, Eric Ofonon¹; | ¹Amref Health Africa, Uganda**

Background: The South Sudan Conflict has led to emergency of externally displaced populations in Rhino camp communities, Arua District. Ofua community has approximately 26,121 Refugees who are supported with the emergency response services. The refugee and host population are prone to health problems including malaria, diarrhea, malnutrition and respiratory tract infections. The Ofua health facility project was set up to supplement the constrained health system providing clinic based and community outreach services.

Methods: Over the period of six months (April to September 2018), a lower level health facility was set up, 11 staff recruited in partnership with DHT, and mentored in ICCM guidelines. A total of 70 VHTs were identified from the target population and trained in ICM and community nutrition education. Medical supplies were provided at the health facility and the VHTs equipped with screening SOPs, malaria diagnostic kits, antimalarial drugs, ORS, antibiotics. Walk in patients were managed at the health facility, and community outreaches were done to screen, treat, give health education and refer complicated cases to the health facility.

Results: A total of 10,563 patients were treated over the six months. The commonest diseases being Malaria (51%), diarrhea among children (26%) and cough (12%). In all, 1074 children and mothers were screened and treated in their homes with 54 referrals to the health center. Health education was given to 7207 households and 4000 mosquito nets distributed.

Conclusion: The intervention has enabled early diagnosis and treatment at the facility and through the community approach, and timely referral. The community structure increase awareness, caters for cultural and ethnic/ language barriers to service access.

TUPE118

Assessing quality improvement capacity building needs of health care leaders in 2 South-West States in Nigeria; **Olatoun Adeola**
| Equitable Health Access Initiative, Nigeria

Introduction: Quality of care has been recognized as a key element for improved health outcomes and efficiency in the World Health Organization's (WHO) widely adopted framework for health system strengthening in resource-poor countries. The public health sector is grappling in Nigeria with challenges of maintaining a high quality care in the face of rapid scale up of health care services to an ever-increasing population with limited resources. Focus of the leadership in the health sector has been on the quantity and not quality of health care services. Quality Improvement (QI) has the potential to optimize the use of limited resources from governments and donors. Continuous Quality Improvement (CQI) processes have not been integrated into the management of health care delivery due to lack capacity building on CQI. The CQI process has been proven to improve healthcare delivery on the HIV program in Nigeria and Africa. Hence this study was done to conduct a baseline QI Capacity Building Needs Assessment for Healthcare Leaders of secondary and tertiary health facilities in Ondo and Lagos States Southwest Nigeria.

Results: 96% of the respondents agreed that demand in healthcare had increased in the past 3 years, 98% strongly agreed that QI initiative will provide a lasting solution to healthcare needs in the state. Most respondents (71%) agreed that capacity building on QI was inadequate. Although 92% were of the opinion that research was an important QI too, 80% felt staffs were inadequately trained to utilize it. Poor relationship between team members and inadequacy of human resources were envisaged as possible challenges in implementing QI initiatives by 89% and 86% of respondents respectively.

Conclusion: There is an urgent need to build the capacity of Healthcare Leaders in South West and the country as a whole to improve the quality of healthcare delivery at public health facilities.

TUPE119

Developing eHealth apps towards Universal Health Coverage: a bottom up approach in Masvingo, Zimbabwe; **Ronald Manhibi¹, Gertjan van Stam² | ¹SolidarMed, Zimbabwe, ²Great Zimbabwe University, Zimbabwe**

Background: The use of information and communication technologies (ICT) in health is taking Africa by storm. The growing ubiquity of ICT services is a development that reshapes how health coverage extends in Africa. In rural areas, providing quality care is a real challenge when considering growing populations, lagging infrastructure investments, and increasing complexity of care. As the WHO [1] concluded: Universal Health Coverage (UHC) cannot be achieved without the support of eHealth. eHealth is relatively new; its conceptual and theoretical adequacies in rural Africa are not yet proven.

Methods: As a contextual aligned development method, SolidarMed hosts a monthly 'hackathon', since 2017. On a voluntary basis, health experts, students and local experts in information and communication technologies participate in hackathon meetings to discuss eHealth developments, opportunities, needs, ideas, potential solutions and tests. In Masvingo Province, these hackathons became a preferred venue to conceptualise eHealth developments in a transdisciplinary manner.

Results: Variants of inclusive and participative processes emerged from the community engagement cultivated by the hackathon. This aligns with the observations of Nora Lindström, who argued that the future is digital, and if the majority of humankind is not engaged in creating that digital future, we are in real trouble.

Conclusions and Recommendations: Contextually embedded eHealth development processes, like this hackathon, facilitate progress in UHC from a perspective-from-within. Such methods address both the distinctions and similarities of eHealth approaches across its operations in Southern Africa, considering both the local and global forces and local agency.

TUPE120

eHealth in Zimbabwe: UHC and a case of local techno-social development; **Trymore Chawurura¹, Janneke van Dijk², Gertjan van Stam³** | ¹Ministry of Health and Child Care, Zimbabwe, ²SolidarMed, Zimbabwe, ³Great Zimbabwe University, Zimbabwe

Background: In their 2016 report on Global Diffusion of eHealth, the World Health Organisation states that Universal Health Coverage cannot be achieved without the support of eHealth. Existing literature and narratives on eHealth appear to be originating from a western epistemology. Our local research gives a broad introduction to eHealth in Zimbabwe, which can resonate with eHealth deployment in other African settings.

Methods: Harvesting from long time and rich experiences, in situ both in rural and urban areas, we position eHealth as a multi-faceted, dynamic and integrative episteme conducive for UHC in Africa. We compile a transdisciplinary eHealth narrative from health professionals and information and communication technology experts in Zimbabwe.

Results: Our research presents preliminary deconstructions on how imported platforms and tools can destabilise well-established practices in the health system, both spatially and scalarly. Reflecting upon the genesis of various perspectives – anthropological, computer scientific, and medical, among others – we reconstruct eHealth within an African perspective and present how such a view on eHealth is productive in Zimbabwe. As digital technologies are becoming increasingly mobile, newer types of digital communication, and thus eHealth, will continue to be created. The case of socio-technical developments at the Ministry of Health and Child Care in Zimbabwe and a local NGO SolidarMed provides examples of practices that are sensitive to such a locally embedded development, showing an urgent need to develop eHealth set in African theories and models.

Conclusions and Recommendations: We propose a rationale for aligning eHealth with people, processes, systems and local cultures, taking into account local ways of meaning making and the value of embedded, local processes. We advocate the development of African eHealth models that are rooted in community engagement, workforce development, and thought leadership that strengthen local capacity development and beneficitation.

TUPE121

Universal Health Coverage: shifting the national Human Resource training, monitoring and evaluation paradigm towards eHealth in Zimbabwe; **Tsitsi Apollo¹, Albert Mulingwa¹, Janneke van Dijk², Gertjan van Stam³** | **Ministry of Health and Child Care, Zimbabwe, ²SolidarMed, Zimbabwe, ³Great Zimbabwe University, Zimbabwe**

Background

Zimbabwe's Ministry of Health and Child Care (MoHCC) employs public health perspectives in the framing of health coverage challenges. Expanding health coverage became critical in response to the HIV-pandemic. The decentralisation of HIV health care, to be delivered at the primary level of care, brought HIV-care closer to the client. This decentralisation, however, caused a sharp rise in demands on health care workers (HCW). The need for training, mentoring and amendatory instruction surged.

Methods: In 2012, MoHCC developed the national "HIV integrated training (HIT) in comprehensive prevention, treatment, care and support for HIV, STIs, TB and related conditions". This training is obligatory for all health staff in Zimbabwe. The curriculum takes place during three weeks at a training venue, away from work. For continuous follow up of the trained HCW, MoHCC developed a national, paper-based clinical mentoring toolkit. To streamline training, mentoring, and to reduce costs, MoHCC, with key partners, digitised the HIT and its Clinical Mentoring toolkit during 2018.

Results: MoHCC transposed the HIT into a tablet-based package for blended learning. Three weeks offsite training is brought back to one-day in-person training, eight-weeks tablet-based training (at work), rounded up during two days in-person training. With the digitisation of its mentoring toolkit, MoHCC implements an eHealth cascade in training and mentoring. This platform allows the Ministry to amend content according to changing guidelines and the linking in of training and mentoring with additional services.

Conclusions and Recommendations: The digitisation of the HIT and the clinical mentoring toolkit allows for flexibility and the cost-effective blending of in-person meetings and training at work. Community interaction via instant messaging and interaction with peers boosts effectiveness. Digital formats allow for continuous improvement of content and course management.

TUPE122

Improved partnership with Health Sector engagement through Structured Coordination Framework; **Paul Agwanda| Public Health, Kenya**

Issues: The county has over 70 Partners supporting the health department. At devolution there lacked structures for Partner coordination, an inventory to track partner operations, resources envelopes for beneficiaries in the county. It was not possible to hold the partners accountable since no memorandum of understanding (MOU) was signed, hence Low participation of partners in planning and implementation processes. The desired objective was joint planning between county government and partners through Signed MOU by keeping updates on Stakeholders resource inventory.

Description: Based on the gaps identified the County Government established a County Partner coordination office, built the capacity of health stakeholders through the coordination frame work and set up a functional Partnership website to capture inventory details of partners mapped in the county. The County leadership group (CLG) has utilized the stakeholder's coordination framework and inventory to coordinate health activities and monitor the implementation of signed frame work.

Lessons Learnt: Advocacy cannot be generalized, since it is targeted at identifying the right office and their roles in Partnership and joint planning with political influence, through opinion leaders.

A well improved and implemented Partner Coordination Mechanism supports Health Sector engagement and Participation of partners towards health service delivery.

Next steps: County Stakeholders to Support the existing county partner's coordination office, by adherence to the coordination structures within the existing frame work. The CLG to ensure joint stakeholder planning of resources to support the Technical working groups (TWGs) through a prepared county stakeholder coordination plan within appendix in the policy framework. A team to steer the process Lobbying Political support at all levels

TUPE123

Achieving efficiency through centralization and integration of corporate information systems, case of Amref Health Africa; **Oliver Calvin Mwalo¹, Astrid Van Rooij¹, Samuel Weru¹, Mable Jerop¹, Morris Matheka¹ | ¹Amref Health Africa**

Background: Realization of value generated in health programmes requires proper management of information. Informed policy development on management of health institutions and interventions requires accurate information. Amref Health Africa has integrated its information management systems to achieve as a key for efficiency, business continuity and sustainability.

Description

Amref Health Africa has, over its 60 years of existence gathered a lot of operational and programmatic data. Management of the data gathered for the purposes of strategy development, performance improvement, cost efficiency and decision making is imperative for service improvement to Amref's target clients. Amref has streamlined data entry points through the use of integrated enterprise resource planning and programme management to achieve a holistic information management engine. The use of an enterprise resource planning and programmes, monitoring and evaluation information system has consolidated data, reduced data entry points, reduced the cost of operation, increased data accuracy and centralized access to use of information systems across all offices. . Access and use of information by all offices means that organization-wide analysis of information can be centrally done with ease. Management of information systems from a central point enforces the organizational standards and improves on sharing of best practices, compliance to policy implementation and accountability.

Lessons learned: Integrated systems cost less with faster turnaround times, shared lessons and quality data. Rapid, informed management decisions are possible due to availability of information. Consolidated information gives less focus on reporting and more on performance. Better view of organisation performance due to centralised data. Less, integrated data entry points provide more dimensions for predictive analytics. In-house support systems yields better user experience than outsourced support. Data warehousing provides better information management.

Next steps: Establish data mining unit for predictive analytics. Establish a centre of excellence for health organizations information management.

TUPE124

Diabetes support groups as a means of sustainability in NCD Management- Kilifi County, **Kenya | Bryson Sifuma¹, Sarah Kosgeil, Colleta Kiilu¹, George Kimathi¹ | ¹Amref Health Africa**

Issue: Non communicable diseases (NCDs) are set to become the leading cause of death by 2030. Ministry of health indicates that 3.5% of the population between 20-79 Years in Kenya have Diabetes that contributes to 50% hospitalization. Health workers have challenges in diagnosing diabetes because many of its symptoms though serious are either missed or treated as common ailments. This poses challenges for diagnosis, treatment and clinical reviews. GSK and Amref Health Africa through its NCDs Project trained health workers on diagnosis, management and control of Diabetes for quality and effective services and use the evidence to inform actions.

Description: After training health workers on effective management of Diabetes, they initiated Diabetes support groups attached to their facilities. A cross-sectional study was conducted during end of the project evaluation to find out the effect of training health workers document lessons learnt and best practices.

Lessons Learnt: 618 health care workers were trained on Diabetes management in Kilifi. 2612 Diabetic patients enrolled in Diabetes support groups. 76% of public health facilities were able to stock supplies and commodities for diabetes management. 82.4% of people diagnosed with diabetes receiving treatment according to national guidelines, 72.3% of community members seeking screening services for diabetes and 70.1% are aware of risk factors of Diabetes. Coordination between the CHVs Mid-level health workers and Diabetic clients. Behavior change, start of community pharmacies, Team work among health workers involved.

Next Steps: Diabetes patient support groups are vital for information sharing, foot care, blood sugar monitoring, self-management, on site counselling/Stress management and lessons on practical lifestyle modification. Training of health workers and equipping health facilities is essential towards effective management and control of Diabetes. Partnership and coordination between the private and public sectors is key in optimizing resources for diabetes management

TUPE125

Enhanced operational approach to emergency vaccination campaigns to increase access to care during insecure humanitarian contexts; **Clementine Fu¹, Emma Diggle¹, Emese Ujlaki¹, Ezekiel Mulowayi¹, Erephina Ratemo¹, Jaekwang Kim¹, Namseon Beck¹ | ¹Save the Children, United Kingdom, ²Save the Children International (SCI) – Democratic Republic of the Congo (DRC), ³Iowa State University, Congo, ⁴Medair, Congo**

Introduction: Prolonged and complex humanitarian crises present ideal conditions for increased risk of disease outbreaks in vulnerable populations, exacerbated by interruption of routine care and EPI services. The efficacy of traditional mass vaccination campaigns in quickly increasing coverage is severely constrained in these settings and, despite thorough preparations, often result in insufficient coverage. An enhanced implementation strategy utilising rapid operationalisation, real-time monitoring, and technological integration may re-achieve rates for hard-to-reach populations.

Methods: Novel strategies were implemented during emergency vaccination campaigns for yellow fever in the Democratic Republic of Congo (DRC) and cholera in Somalia. Coordinated rapid resource deployment was paired with multi-pronged delivery structures and synchronised monitoring frameworks. Exit interviews and focus group discussions (nDRC= 591, nSomalia = 3025), and a two-stage stratified clustered community household survey (mDRC = 300, mSomalia = 1684) assessed coverage, service provision, barriers to uptake, awareness, and standard evaluation indicators. Data captured using a novel mobile-to information system link provided daily feedback to operational teams.

Results: Final coverage indicators were 93.1% [87.4, 98.8] (DRC) and 99.1% [98.6, 99.4] (Somalia). Geographical areas of low coverage were identified across the target districts. On-site monitoring activities demonstrated high service delivery satisfaction in both campaigns (89%, 94%). Primary barriers to vaccination were incompatible campaign times with work hours (DRC) and distance to clinical sites (Somalia). Knowledge of and adherence to prevention behaviours varied by age group.

Conclusions: Regular analysis of monitoring data in real-time facilitated immediate strategic operational changes. These included identifying different communications channels, transmitting new messages to counter community misperceptions, and targeting low coverage areas with mobile and house-to-house vaccination teams. Overall coverage was equal or greater than that of mass campaigns in non-emergency settings. This methodology allowed teams to reach populations in highly insecure settings with minimal access to regular or emergency care, including IDPs and children

TUPE126

Experiences of Health Post Implementation in Rwanda: A gamechanger in achieving the universal health coverage through Public–Private–Community Partnership (PPCP); **Chantal Ingabire¹, Manasseh Wandera Gihana¹, Fredrick Kateera² | ¹SFH, Rwanda, ²PIH, Rwanda**

Introduction: Rwanda has increased availability, accessibility and affordability of health services. Active partnership with civil society and the private sector has been key. Society for Family Health (SFH) partnered with the Ministry of Health to establish health posts (HPs) to reduce barriers to access of health services and contribute to achieving universal health coverage (UHC). Between January and November 2018, 31 HPs were established, mainly in Nyagatare (Eastern) and Nyanza (Southern) Districts. This study assessed how HPs contribute to increasing access, reducing barriers to care, improving awareness and promoting affordability of effective health services at cell administrative units (population of 5,000–7,000).

Methods: Using a qualitative approach, data was collected in December 2018. Ten HPs, six managed by private nurses and four managed by health centers were selected purposively in Nyanza and Nyagatare Districts. In total, 22 in-depth interviews were done: 7, 5 and 10 among community clients, local leaders and HP operators, respectively. Clients reported short travel distance (0–3 km) and reduction in transportation costs to and from the usual health center (between 5–15 km and costing \$ 2.2 to \$ 3.4). HPs were also associated with reduction in time spent at health facility and the number of productive days lost.

Results: Operators highlighted that HPs were accessible by large number of population (between 300–800 clients per month and per HP) and that HPs facilitated community awareness mainly related to communicable diseases prevention and use of family planning program. Availability of HPs according to leaders, led to increase in subscription to the community based health insurance scheme, increased use and affordability of health services, reduced over-the-counter medications and mitigated the financial risk associated with out-of-pocket expenditures.

Conclusion: Overall, HPs contributed to increased prompt care seeking and reduced common severe illnesses occurrence. Scale-up and expansion of a range of HPs provided services may contribute to achieving UHC.

TUPE127

Surgical outcomes following diagnosis with Rheumatic Heart Disease | **Innocent Ndikubwimana | University of Rwanda, Rwanda**

Issues: This study aims to improve on the registration for patients as there is a small central registry of Rheumatic Fever/Rheumatic Heart Disease patients, but it lacks enough information to accurately classify pediatric Rheumatic Heart Disease.

We have realized that the analysis of the collected data will provide useful information about the disease. It will also allow Rwandan Pediatricians and others to raise awareness of the importance of the disease, to help with prevention of this condition, and aid in methods to improve adherence to Penicillin prophylaxis. Sensitization of both medical and non-medical population should be a further goal to be considered.

Despite the possibility of early detection of Rheumatic Heart Disease, it is still one of the most frequent indications to cardiac surgery in young population and one of the main causes of death in children with Acute Rheumatic Fever. The reason why I would like to emphasize and raising this burden in our country Rwanda.

Issues: Results-based Management (RBM) is an important concept in the strategic system approach.

It is a systematic conglomeration of efforts consciously made to achieve a desired result. It is a management approach purely shaped by the results. This study seeks to explore the application of RBM in program management through the analysis of a life case study.

Description: This section discusses the results-based management logical framework and the theory of change. The logical framework of RBM is characterized by the structured, logical model, which identifies the expected outputs, based on the inputs as well as activities required to accomplish the outcomes and the impact (UN, 2016). The logical framework is structured around five items: assess, think, plan, do and review. A global, regional and national thematic and institution-driven review is the framework applied in developing this paper.

The philosophical assumptions underlying this study are based on critical realism. This study seeks to establish the mechanisms applied in results-based management and the structures that are required via a life case study of the United Nations Organizations. In critical realism ontology, three aspects are considered, the real, the actual and the empirical. To understand the application of RBM in the case study, this analysis combines all the three aspects of a insightful analysis.

Lessons Learnt: The study draws important lessons in the implementation of results-based management model stemming from the introduction of changes in the RBM framework and the incentives for motivating the management to adopt results-based management. The study notes the existence of RBM on policy papers, with a minimal impetus to implement it practically despite its potential benefits in improving the organizational performance. In occasional cases where the framework is implemented, there exists an inadequate degree of inclusivity, participatory and enabling environment. The life case studies are focused on the United Nations Organization.

TUPE129

Reaching Road Construction Workers and Communities along Dodoma-Babati Road in Central Tanzania; **Anatory Didi¹, Amos Nyirenda¹, Aisa Muya¹, Frida Ngelason¹, Jonhstone Sendama¹, Tumaini Mashina¹, Godwin¹ | ¹Amref Health Africa, Tanzania**

Issues: Road construction attracts migrant workers from a region and across country. Global evidence point out vulnerability of construction workers to HIV. Majority of road construction workers are men who stay away from their spouses that predispose them to high risk of contracting HIV.

Description: Amref Health Africa in Tanzania and Euro Health Group-Denmark (EHG) were contracted by Tanzania National Road Agency (TANROADS) to provide consultancy services for HIV sensitization targeting road construction workers and community members along Dodoma-Babati road. This aimed to educate road construction workers and community members on HIV prevention and encourage them to access HIV Testing Services (HTS) so that those testing HIV negative be supported to remain negative and diagnosed with HIV be linked to care and treatment. The project was implemented in collaboration with district and communities. Sensitization activities included: behaviour change communication campaigns; HIV prevention education and HTS targeting road construction workers and community members along Dodoma-Babati road in central Tanzania from June 2014 to March 2018.

Lessons learnt: Provision of outreach HTS approach proved success to reach men. A total of 5,791 people who received HTS; 2,966 males (51%) and 2,825 females (49%); 187 individuals (82 males and 105 females) were HIV positive and were linked to care and treatment. In order to support individuals testing HIV negative, remain negative and no new HIV infection; a total of 200,660 male and 14,975 female condoms were distributed to road construction workers and community members

Recommendations: Engage districts to mobilize resources to provide out-reach Community-based HIV prevention members and migrant road construction workers.

TUPE130

Benefit of including TB services in the benefit package of the Health Insurance Scheme of Nigeria; **Kehinde Jimoh Agbaiyero |**

National TB and Leprosy Control Program, Nigeria

Issues: Nigeria is undergoing health financing reform which will (i) increase the domestic resources mobilization (DRM) for health and (ii) prioritize increasing access and financial protection to health services by the poor and the vulnerable. These two aims are of particular relevance to TB given that the current program is primarily donor financed and TB is often described as a “disease of the poor”. Currently, there is paucity of data on TB particularly at the sub national level. Information on the magnitude and source of TB funding and how it flows through the system is not readily available. Also there is no data on how TB financing is prioritized within health budgets.

Description: Successfully make the case for Tuberculosis into the Benefit Package (TB into BP), we combined all the relevant potential health and financial impact data into effective advocacy messages that are persuasive for the different stakeholders. We worked with the TB implementer to generate evidence on the need to pursue a sustainable financing mechanism for TB service delivery and the feasibility (financial and technical) of delivering TB services through its inclusion in the health insurance benefit packages at all levels. Regarding TB financing data, these are not readily available but we conducted assessments like the Health expenditure review, TB financing gap and TB spending assessments that will highlight the inadequacy and unpredictability of the existing TB financing landscape.

Results: The TB and Health Financing stakeholders were engaged and buy in for TB inclusion in the BP was obtained. Understanding of basic health financing concepts by stakeholders was improved, with resultant acceptance of TB into Benefit Package. Capacity of state actors in the design and implementation of health insurance schemes particularly at the state level was improved

TUPE131

Preference heterogeneity, neighbourhood effects and basic services: Logit kernel models for farmers' climate adaptation in Ethiopia; **Stefano Mainardi | Technical University of Ostrava, Ethiopia**

Background: As mainly rain-fed, cropland in sub-Saharan Africa is highly vulnerable to climate change, with adverse effects on food security and public health. With recurrent droughts and inadequate access to rural extension, subsidised credit and basic services, seeds and other resources become less available to farmers during 'normal' periods. This has driven many farm households to adopt short-term coping strategies. Studies on climate adaptation often pay insufficient attention to spatial diffusion externalities and basic utilities other than rural extension services.

Methods: The analysis formulates conditional and mixed logit (logit kernel) models, with applications to a survey of Ethiopian rural households, based on individual/farm characteristics and access to basic services. The survey covers 162 villages, with 50 households –multistage stratified randomly sampled– in each of 20 districts in the Upper Nile basin. A comparison with cross-district indicators of recent aid emergency priorities supplements the analysis.

Results: Neighbouring farms with more educated farmers and larger plot sizes increase the likelihood of a household opting to sell livestock and land along with combined measures of farmland enhancement. Random parameters associated with person-days and farm gross margins highlight individual and group heterogeneity. Logit kernel outperforms conditionallogit in explanatory power, and likelihood ratio tests prioritise models with neighbourhood effects.

Conclusions and recommendations: Multinomial models ignore heterogeneity and 'mixing' across alternatives and individuals, which are relevant features of climate adaptation measures. Spatial logit kernel models allow capturing behavioural differences –with varying degrees of uncertainty about payoffsand neighbours' interactions. Moreover, econometric results point to access to electricity, healthcare, and reliable/safe water supply as high priorities for rural development, also in view of strengthening the ability of farmers to respond to climate change. Specific adaptation measures can improve the capacity of rural communities to mitigate the severity of health and nutrition crises.

Keywords: climate adaptation, logit models, georeferenced data, basic utilities, Ethiopia.

TUPE132

Pre-hospital trauma care in Kenya: Has the UHC drive forgotten this?; **Anthony Kihara | Amref Flying Doctors, Kenya**

Issues: Kenya has a significant road traffic incident burden. Seriously injured victims require emergency care and urgent transfer in a safe manner to a facility that is well staffed and equipped. The major cities in Kenya have state of the art tertiary medical facilities.

Description: Trauma care in our emergency departments and Critical Care units is improving day by day due to large investment both in the public and private sector. Unfortunately, the case is not the same in pre – hospital care of the trauma patient. Morbidity and mortality in trauma is worsened if trauma victims are managed poorly from the scene of injury. Transportation delays also impact outcome as patients may be initially moved to facilities that are unable to provide the level of care needed.

Lessons Learnt: Outcomes can therefore be improved by improving availability of pre-hospital emergency care, quality and reduction of transfer delays to a tertiary well equipped and staffed facility. The current drive towards UHC seems to be more focused on hospitalization and has left out this key determinant of survival in trauma

TUPE133

Improving Uptake of Long Acting Reversible Contraception through integration into community interventions: A case of Kamuganguzi HC III; **Gordon Tugume¹, Sheillah Nsasiirwe², Kyomuhendo Shakira³, Samuel Wasike², Patrick Kagurusi¹ | ¹Amref Health Africa, Uganda, ²USAID RHITES SW, Uganda, ³Kabale district local government, Uganda**

issues: Family planning has been proven to reduce un-intended pregnancies, reduce maternal and child mortality and as an approach to reduce transmission of maternal to child HIV. However, Uganda's unmet need remains high (28%) coupled with a high total fertility rate of 5.4%, maternal mortality 338/100,000 live birth and perinatal death of 27/1000 live birth USAID RHITES SW project supported Kamuganguzi HC III to integrate family planning services in the already existing community interventions.

Description: Kamuganguzi HCIII with support from USAID RHITES SW project started integrating provision of long acting reversible contraceptives especially implants as part of the comprehensive services package in the monthly male dialogues and family health groups composed of pregnant and lactating mothers. FP services such as counseling on benefits and methods available among others were integrated with the existing community package consisting of the following services; HIV testing services, STI screening, nutrition assessment and counseling and SBGV screening.

Lessons learnt: Uptake of LARC increased from an average of 18 new monthly acceptors in July - Sept 2017 Quarter, to 24 new monthly acceptors in April - June 2018 Quarter.

Recommendations: Integrating family planning service into existing community interventions like Family health groups and community dialogues increases uptake and utilization of long acting reversible family planning services.

TUPE134

Prevalence and factors associated with risky sexual behaviour among adolescents living with HIV/AIDS in Mbarara, South-Western Uganda; **Sunday Nighty | Amref Health Africa, Uganda**

Background: Scaling up of Highly Active Antiretroviral Therapy in Uganda has improved survival of a cohort of children into adolescence. Adolescence is a turbulent period where experimental sexual behavior may occur. Adolescents living with HIV (ALHIV) with risky sexual behavior are key players in transmitting HIV. We aimed at establishing the prevalence and factors associated with risky sexual behaviour among ALHIV in Mbarara, Uganda.

Methods: We conducted a cross-sectional study of adolescents (10-19 years) living with HIV, and attending HIV clinics in Mbarara between March and May 2017. We collected sociodemographic, behavioral and health service-related data. Risky sexual behaviour was defined as involvement in sexual activity too early, non-condom use, having one or more sexual partners, sex under influence of alcohol or drugs in the past 12 months. Logistic regression models were fitted for factors associated with risky sexual behaviours, using STATA 13.0 software.

Results: We interviewed 346 adolescents, 66% aged 10-14 years, 61% female, 71% living in a rural or semi-urban area, 53% double or single orphan. Overall, ~10% of ALHIV engaged in risky sexual behavior with higher prevalence in females (15.1%), age category 18-19 years (50%) and among ART naïve (33.3%) ($p < 0.01$). Being an older adolescent (≥ 15 years) (OR=14.0, 95% CI: 4.55-43.02), being female (OR=4.1, 95% CI: 1.12-14.98), staying in households with < 5 members (OR=3.0, 95% CI: 1.13-7.31) and ALHIV receiving family planning information from clinic in last 12 months (OR=3.4, 95% CI: 1.42-7.94) were independently associated with risky sexual behaviour.

TUPE135

Sanitation daily project end term evaluation report; **Hanna Hansemo; Amref Health Africa, Ethiopia**

Background: Amref Health Africa Ethiopia conducted an End Term Evaluation for its five year, EU Funded “Sanitation Daily Project”. The objective was to assess the extent of brought changes compared to set objectives and to identify lessons learnt for future project design.

Methods: The Study was conducted in the projects intervention area, at Addis Ababa. project beneficiaries were targeted. A community based, cross-sectional study design that employed mixed methods (qualitative and quantitative) of data collection was used. Structured household survey instrument was used for quantitative data collection. Key-informant interview, focus group discussions, direct observations and desk-reviewing were used for qualitative data collection. A two-stage sampling design employed for the survey along with probability sampling and 603 households and 45 solid waste collection operators participated. Purposive sampling technique utilized for the qualitative data and 22 Key Informant Interviews, six Focus Group Discussions and 18 direct observations were conducted. Quantitative data analyzed using SPSS and qualitative data was analyzed thematically.

Results: The project contributed in increasing access to improved latrine facility from 51.0% at baseline to 76.4% at final evaluation. Improvements in knowledge and practice of hand washing at critical times were seen from midterm to final evaluation. The practice of solid waste disposing into canals/open spaces has significantly declined from 47.7% at baseline to 7% in this evaluation. The prevalence of diarrheal disease on children under five years of age in two weeks preceding the survey significantly decreased from mid- term evaluation (8.6% to 2.5%). In addition, diarrheal disease prevalence among all family members including children decreased from mid-term (6.4% to 1.1%).

Conclusion: The project was successful to a large extent in achieving its expected results. This has contributed to decrease the prevalence of diarrheal disease among children and all age group member of the community.

TUPE136

Effectiveness of CLTS and factors influencing sustainability of CLTS in Dera District, South Gondar, Ethiopia; **Mamaru Ayenew¹, Kulule Mekonnen¹, Muluken desalegn¹, Geteneh Moges¹ | ¹Amref Health Africa in Ethiopia**

Background: Community-led total sanitation (CLTS) is one approach to eliminate open defecation (OD) by mobilizing the communities. Sustaining open defecation free (ODF) communities or adherence to ODF is an important concern after post triggering and ODF certification. Although CLTS is said to be effective, factors that impeded or facilitate the effectiveness of CLTS and factors influence the sustainability of ODF and why communities revert to OD. To assess the effectiveness and sustainability of CLTS interventions on Open Defecation or in changing behavior to eliminate OD

Methodology: A cross-sectional HH survey, which employed a mixed (quantitative and qualitative) was conducted in December 2017. A total of 200 households were sampled from the implementation area. Data were collected through face to face interview, observation,

10 key informant interviews (KIs) and 4 focus group discussions (FGD). Descriptive statistics such as frequencies and percent was used to explain the selected characteristics.

Results; Most of the respondents (60%) were female. The mean age of the respondents was 41.7±13.4 years and ranged from 18 to 75 years. Out of 199 households from the intervention area, 191(96%) have latrine at home. Of this, 98% of households used the latrine. 80% of the surveyed household practice hand washing after visiting the toilet. 9.1 % of the households still practicing open defecation. Disgust and shame, strong community mobilization and post-triggering follow up emerged as the main drivers for behavioral change among the community. Strong monitoring and follow up, quality of latrine constructed, awareness and deep behavioral change were mentioned as a key factor for sustainability.

Conclusion: Community-led total sanitation brought promising results. Positive behavior changes were noted to create ODF community. The finding highlights, CLTS as effective to contribute to the elimination of open defecation. Although CLTS focuses on the behavioral change, brought also impact on latrine adoption and latrine use.

TUPE137

Midterm evaluation of the project: Improving WASH in slums of Akaki-Kality and Yeka Sub-cities, Addis Ababa; **Wosen Gezahegn¹**
Goshu Worku² | ¹Amref Health Africa, Ethiopia, ²Goshu worku Consultancy Services, Ethiopia

Background: Amref Health Africa has been implementing a project titled “Improving WASH in slums of Akaki-Kality and Yeka Sub-cities, Addis Ababa.” The project aims to improve WASH services for communities in slum areas over a period from September 2015 to August 2019. The general objective of this midterm evaluation was to determine the project’s level of achievement set against targets in line with indicators, and against the baseline study conducted for the project.

Methods: The midterm evaluation employed a community-based cross-sectional study design. Both quantitative and qualitative data were collected in Yeka and Akaki-Kality subcities of Addis Ababa. Data was collected in January 2018. Primary data was collected through a household survey (570 respondents), Key Informant Interviews (23 KIIs), Focus Group Discussions (11 FGDs), and direct observation of WASH facilities. Electronic data collection was conducted through Open Data Kit collect App uploaded on tablets and analyzed using SPSS version 20 for windows.

Result: The household survey showed that 70.5% of households have access to latrine facility, showing a significant increase from 17.1% at baseline. Nearly all (95.8%) of households have access to safe water sources within 15 minutes of walking time. However, participants in KIIs and FGDs reported interruption of water supply as the primary challenge. The majority of respondents have a practice of washing hands before eating (91.8%), before cooking (85.3%), and after visiting toilet (80.4%).

Conclusion and recommendation: The project contributed to improving health among slum communities as evidenced by the significant reduction in diarrhea prevalence among under-five children. Addressing frequent interruption of water supply by working with water offices should be given due emphasis.

TUPE138

The global burden of type two Diabetes Mellitus in patients infected with Hepatitis C Virus: a systematic review and meta-analysis; **Sintayehu Ambachew Wondemagegn | University of Gondar, Ethiopia**

Background: The ever-increasing global hepatitis C infection is fueling the burden of diabetes mellitus, which exaggerates various complications and may be a cause of death for millions. Several studies have reported that hepatitis C virus infection is an important risk factor for the development of diabetes mellitus. However, the results of fragmented studies reported variable and inconsistent finding on the prevalence of type two diabetes mellitus among hepatitis C virus-infected patients. Therefore, this meta-analysis aimed to estimate the overall prevalence of type two diabetes mellitus in patients infected with hepatitis C virus.

Methods: This systematic review and meta-analysis included original articles of cohort and cross-sectional studies. A systematic search was performed in PubMed, Science Direct, and Google Scholar from October to December 2017. A Random-effect model was used to estimate the global pooled prevalence of type two diabetes mellitus among hepatitis C infected patients. Sensitivity analysis was conducted to check the stability of summary estimate. Heterogeneity was assessed using I^2 statistic. Sub-group analysis was also conducted based on geographical region. Funnel plots were used to see publication bias.

Results: A total of 40 eligible articles reported data from 14765 study participants were included in this meta-analysis. The pooled prevalence of type two diabetes mellitus among hepatitis C virus-infected patients was 19.67% (95% CI: 17.25, 22.09). The subgroup analysis showed, pooled prevalence of 27.72% (95% CI: 20.79, 34.65) in Africa, 20.73% (95% CI: 17.57, 23.90) in Asia, and 16.64% (95% CI: 6.79, 26.49) in North America, and 15.02% (95% CI: 10.66, 19.38) in Europe.

Conclusion: The overall prevalence of type two diabetes mellitus among hepatitis C virusinfected patients was considerably high compared to the general population. Therefore, early intervention is needed (prevention and early treatment of hepatitis C virus infection) to prevent the development of type two diabetes mellitus.

TUPE139

What if community dispensation of ART were the right strategy to achieve the 3rd 90? Experience from Humanity First Cameroon with MSM; **Enyegue Belinga Jean Claude¹, Olongo Antoine Silvere¹, Tchombe Yemy Antoine¹ | ¹Humanity First, Cameroon**

Issues: Efforts to end HIV has accelerated with the 90-90-90 goals of UNAIDS. Thus, new HIV infections have decreased by 6% since 2010 (UNAIDS, 2016). However, this global improvement in access to antiretroviral therapy (ART) conceals the difficulties faced by People living with HIV (PLHIV) in acquiring ARVs, as in Cameroon for example. To provide concrete solutions to this situation, the Ministry of Public Health has decided to operationalize the strategy of community dispensation of ART since May, 2016. It is in this light that Humanity First Cameroon, which a community-based organization is working with men who have sex with men (MSM), has chosen to implement this strategy and study the link with viral load results.

Description: The National AIDS Control Committee (NACC) has chosen Humanity First Cameroon to implement this new approach. We are working very closely with Military hospital of Yaoundé which plays the role of mentorship. MSMs on ART consent to come and collect their drug at our drop -in center. They are followed by a skilled team of psychosocial counselors and peers navigators which give them a lot of psychosocial support. After six months, they have been tested for their viral load.

Lessons Learnt: Between 2016 and 2018, we have enrolled 196 MSM on this strategy, 134 (60%) of them has a suppressive viral load. Those who have not suppressed their viral load are identified as those who were not compliant with their appointment to collect the drug at the drop -in center.

Recommendations: In the architecture of the national response of HIV, civil society organizations play a vital role in ending AIDS by 2020. Indeed, community dispensation of ART is an effective means of complementarity with health structures. The high number of clients with undetectable viral load is a sure indicator of the effectiveness of this strategy.

TUPE140

Weight pattern among infants in relation to early introduction of complementary feeding in , Dar Es Salaam; **Benson Bryceson Mringo | Hubert Kairuki Memorial University, Tanzania**

Background: Exclusive breastfeeding is the best practice in achieving infant's growth and development.

Appropriate feeding practices are the most cost-effective intervention to reduce child morbidity and mortality. The main objective was to assess the average weight gain pattern between infants who have been exclusively breastfed and those infants who have had early introduction of complementary feeding before six months of life

Methods: A cross-sectional retrospective study was carried out at Kambangwa Reproductive and child Health Clinic. Total of 372 children who were above six months of age attending clinic at that center were randomly selected. They were interviewed by predesigned restructured questionnaire and the weight for age abstracted from the Reproductive and child Health Card I(RCHI Card). Information regarding the breastfeeding pattern in comparison of gender and the associated factors such as maternal occupation and type of complementary food introduced before six months and reasons for early initiation were obtained.

Results: The results had no statistical significance but it had clinical significance. EBF rate declined progressively from the first months to sixth month. At sixth month, EBF infants achieved a better and more rapid weight gain when compared with those in NEBF group. Maternal occupation and gender of the child had significant effect on the breastfeeding pattern within six months of life

Conclusion: This study showed that exclusive breastfeeding supported weight gain of the study infants during the first 6 months of life. EBF infants got a rapid and significant increase in weight when compared to NEBF infants from the first month of life to the sixth month of life

TUPE141

Challenges of supply chain management systems towards providing access to essential healthcare commodities in Marginalized Communities, Kenya: A case of Amref Health Africa in Kenya; **Erick Muga; Amref Health Africa, Kenya**

Background: Universal health coverage and access to safe, effective, quality and affordable medicines are major priority areas indicated by Sustainable Development Goal 3. Marginalized populations globally including those in Kenya face challenges accessing healthcare commodities. Yet, lack of proper supply of essential lifesaving medical commodities can cost lives if not well addressed. Amref Health Africa in Kenya provides health care support to marginalized, hard-to-reach communities. However, the organization faces challenges during distribution of healthcare commodities to these communities

Methods: This study sought to identify challenges facing supply chain management systems for essential healthcare commodities in marginalized populations. A cross-sectional descriptive study design was adopted. A total of 92 project staff serving marginalized communities in 11 counties in Kenya were randomly selected from Amref Health Africa database. Quantitative data was collected using semi structured questionnaires and analyzed using frequencies and proportions.

Results: More than a third (42.2%) of respondents reported inefficiency in transportation and distribution due to poor road networks as the main challenge affecting supply chain management system. Other drawbacks included: lack of sufficient funding for purchasing and distribution of commodities (23.4%), Insecurities during distribution (17.2%), weak government structures to curb funds misappropriation (10.9%) and lack of proper disaster preparedness plans for emergency healthcare supplies (6.3%).

Conclusions and recommendations: Availability of medical commodities to marginalized communities needs efficient and effective supply chain management systems. Stronger supply chains saves lives. There is therefore need for the national and county governments in partnership with development agencies to improve road networks and provide security both to marginalized populations and aid agencies for effective distribution. Also, measures should be put in place to strengthen government structures to address funds misappropriation and implementation of appropriate disaster preparedness and mitigation plans.

TUPE142

Improving quality of services through decentralized medical workshops

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Issue: One of the reasons for poor quality of services is the inadequate condition of medical equipment for diagnostic and treatment in health facilities. Reasons include lack of maintenance, lack of skilled biomedical technicians, absence of tools for repair and inadequate funding.

Description: Maintenance of all medical equipment used to be managed and most of them done by a specific maintenance Division at Central level. This proved to be ineffective and inefficient to address all facilities requirements. This describes the setup of provincial level maintenance workshops that will provide most services for curative maintenance at all public hospitals within the province.

Four sites have been identified in four provinces, 2 provincial workshops were constructed while 2 more were renovated from old buildings. Scope of the workshops is defined to cover second line curative maintenance of medical devices in all health facilities of the province, while lower levels will ensure preventive maintenance and minimum repairs of equipment. Startup funding of the workshops is provided from central level in a scheme aiming at financial autonomy through billing of services to the end users. It shall include staffing, procurement of tools and spare parts. Further operations will be funded from 5% of hospital revenue (ministerial instruction to dedicate it to maintenance) and through invoicing end-users for the services. Mentoring, supervision and monitoring will be provided by central team for quality assurance, regulation and quick response.

Lessons learnt and next steps: Ensuring effective medical equipment for diagnostic and patient care is essential. The decentralization process requires involvement of many stakeholders and a clear strategic vision and operational plan. Definition of service packages and implementation modalities, availability of skilled staff, workshop space and tools, funding, mentoring and close monitoring are key requirements for successful achievements.

TUPE143

Working with community health volunteers to find TB Missed persons in communities through contact screening in Kenya; **Tabitha Abongo | Amref Health Africa in Kenya**

Background: The World Health Organization, Global Tuberculosis report in 2017 identified TB as the leading cause of death from a single infectious agent, ranking above HIV/AIDS. Tuberculosis is the fourth biggest killer in Kenya after HIV/AIDS, maternal deaths and lower respiratory infections. Global Fund supported Amref in Kenya to implement TB activities in all counties. In 2015 the percentage of (TB) cases identified through tracing of contacts in Kenya was 6% (5,819) of the 82,355 cases notified to the National TB Program while the percentage of notified TB cases, all forms contributed though community referrals was only 4%.

Methods: Between January and December 2017, Amref trained and engaged 3,609 Community Health Volunteers (CHVs) and 3,397 Community Health Extension Workers (CHEWs). CHVs were linked to 3,268 health facilities registering at least one TB patient. CHEWs generated a list of the bacteriologically confirmed TB patients and TB cases of children under 5 years and allocated them to the CHVs who visited their households for health education, Screening and referral for cases with TB signs and symptoms. CHVs were provided with transport and lunch allowance for every household visited and family members screened. CHEWs were also supported with airtime for effective supervision and coordination of the CHVs activities

Results: In 2016 to 2017 CHVs visited 59,768 households of TB patients. A total of 130,656 household members were screened for TB (female=53%, 47% Male) and 28,139 (female =54%, 46= Male) persons were referred for further TB investigation. The percentage of TB cases identified through tracing of contacts improved from 6% to 10% while the percentage of notified TB cases, all forms contributed though community referrals improved from 4% to 9% and CNR improved from 191\100,000 to 210 \100,000

Conclusion: Investing in CHVs to carry out contact screening helps find TB missed persons and in elimination of TB

TUPE144

In contribution to the lasting health change – The Amref Health Africa WASH Vision; **Josphat Martin Muchangi | Amref Health Africa**

Issue: Globally, an estimated 2.5 billion people lack access to improved sanitation of which 695 million live in Sub-Saharan Africa. In addition, around 400 million people in this region (2 out of 5 people), lack access to basic drinking water service. As a result, populations in these African countries continue to disproportionately suffer diseases related to poor water and sanitation.

Over the last 30 years, Amref Health Africa has been implementing WASH programmes across 11 countries in Africa. Our experience has built knowledge to develop new thinking and business philosophies that can facilitate attainment of inclusive scale. With the lessons learnt and having attained programmatic maturity, the Amref Health Africa WASH programmes developed Amref Health Africa WASH Vision; a collection of tested tools, models and approaches. The vision provide strategic direction on means of addressing the WASH challenges towards attainment of SDG 6. The vision premised under three pillars namely: sustainable WASH services, enabling environments.

Lessons learnt: Based on the main pillars, Amref Health Africa seeks to engage pan-African processes such as The African Ministers' Council on Water (AMCOW), African Union (AU) and others organisations and agencies to revolutionise water and sanitation business modelling. Key to this will be focused advocacy that seeks matching grants with governments, leveraging, attracting private funding into WASH sector and co-creating integrated programmes

TUPE145

Assessing risk factors contributing to poor blood pressure control among hypertensive population in three counties in Kenya;

Tecla Namusonge | Amref Health Africa, Kenya

Background: Blood pressure remains poorly controlled among hypertension patients on both non-pharmacological and drug therapy in Kenya. The specific objective of this study is to assess the risk factors contributing to poor blood pressure control among hypertensive patients on treatment.

Methodology: This was a retrospective cohort study of hypertensive patients conducted between June and December 2017 through Healthy Heart Project in three counties. Blood pressure control was assessed in 2520 hypertensive patients that was defined as systolic ≤ 139 and/or diastolic ≤ 89 . Patient records were extracted from the routine registers. Data was analyzed descriptively.

Results: A total of 2520 were patients monitored after three months from the time of the diagnosis. The mean age was 53 years with the youngest being 17 years and oldest 118 years old and 69.7% (1764) were women. Similarly, 78.4% (1976) were put on drugs, out of which only 30.9% (610) were men. A total of 893 patients managed on pharmacological therapy had controlled blood pressure of $< 140/90$ mmHg out of which 73% (654) were women. Systolic range was 50 – 235 while diastolic 35 -183 and an average blood pressure reading of 144/87. A total of 198 (7%) patients had both diabetes and hypertension out of which 67% (134) had uncontrolled blood pressure. Of the 67% with uncontrolled blood pressure, 60% were being managed on drugs and 40% on lifestyle. It was also found out that 35 patients consumed alcohol whilst 22 used tobacco; 65% of those who consumed alcohol and 82% of patients who used tobacco had uncontrolled blood pressure despite the fact that there managed on drugs.

Conclusion: The results suggested that diabetes, smoking and alcohol consumption were risk factors for blood pressure control in primary care. Patients with both diabetes and high blood pressure should be monitored closely to improve adherence to medication.

TUPE146

Leaving no one behind. Using innovative approaches to deliver family planning services to women in hard to reach areas; **Wambura Boniface¹, Muema Onesmus¹, Benson Lenanyokie¹ | ¹Amref Health Africa, Kenya**

Issue: We utilise the experience of Afya Timiza project in Samburu to assess how three innovative approaches can increase access to FP (Family Planning) services among women in hard to reach areas.

Description: Afya Timiza project is a project aiming to increase quality and access to FP, maternal and child health services among hard to reach communities in Samburu County. The project implemented three innovations. Motor mobile outreaches which targeted communities that are far from health facilities but are in areas accessible by road. The project vehicle camped on a site for days providing integrated services including family planning. Second, the project used back pack strategy which targeted communities that were on frequent move. A person from the community was trained to disseminate health information and identify health need of each household then through linkage with a nurse they moved door to door providing integrated health services. Lastly the project used camel outreaches to deliver services to communities in areas inaccessible by road.

Lessons Learnt: The three approaches increased access by delivering FP services to 4757 clients which represented 12% of clients provided with FP services in the county. This resulted to scaling up the approaches to more sites. The back pack strategy reached the most clients at 1970, the camel strategy 1432 and motor mobile 1355 clients. Hence emphasizing the need for training and involving key people in hard to reach areas during service delivery.

Recommendations: Development of context specific outreaches to increase health service access in hard to reach areas. Furthermore, training and involvement of people from hard to reach area in service delivery can increase uptake

TUPE147

Dorsal slit-mogen clamp method for safe and efficient infant circumcision in Siaya County, Kenya; **Vincent Aloo | EGPAF, Kenya**

Issue: The second National Strategy on Male Circumcision prioritizes circumcision using devices as a strategic direction for safe and quality services in Kenya. Mogen clamp is an approved device for circumcision of male infants 0 to 60 days old. A study on its safety had five cases of injury to the glans (0.002%) and the risk of injury still persists during device placement and cutting of the foreskin.

Description: Mogen clamp works by applying pressure to a marked portion of the infant foreskin for 5 minutes without using sutures prior to injection with local anesthesia. The safety of the glans is confirmed by feeling for it once the device is in position (palpation) then the foreskin is cut off. The visualization of the glans instead of palpation is an innovative method for enhancing safety and quality. During placement, a dorsal crush is made at 12 o'clock position followed by partially locking the device, visualizing then locking the device and confirming again. The dorsal slit is made after locking the device and visualizing the glans for the third time.

Lessons learnt: Dorsal slit- Mogen clamp method improves safety of infant circumcision. VMMC surgeons were mentored and coached using a structured tool and the standard operating procedure (SOP) for Mogen Clamp was revised and adopted to include additional dorsal slit steps. 1200 clients have been safely circumcised using the dorsal slit- Mogen clamp intervention over the past twelve months.

Recommendations: Dorsal slit- Mogen clamp method is strongly recommended to enhance safety and quality of infant circumcision. The national guidelines for Early Infant male circumcision (EIMC) procedure should be revised to provide for dorsal slit- Mogen clamp method. Trainers and service providers should also be trained on this method to improve safety and quality of infant circumcision.

TUPE148

Impact of mass drug administration in trachoma elimination efforts in Lilongwe East and Neno Districts in Malawi; **Young Samanyika**
| Amref Health Africa, Malawi

Issue: Trachoma is the leading cause of infectious blindness in the world including Malawi. Young children are the reservoir of active infection while blindness occurs later in adulthood mostly in women. The disease is common in poor communities.

Description: Amref Health Africa was part of trachoma elimination project in Malawi. Surgery Antibiotics Facial cleanliness and Environmental improvements (SAFE) strategy was used in the implementation of the project as recommended by World Health Organisation (WHO). The goal for the project was to eliminate blinding trachoma by 2019. According to WHO, trachoma elimination is measured by the reduction of prevalence of trachoma follicular (TF) in children between 1 and 9 years of age to $\leq 5\%$ and reduction of prevalence of trachomatous trichiasis (TT) in adults of 15 years and above to $\leq 0.1\%$. This should be the case at both impact and surveillance surveys. The prevalence of TF at baseline was 9.9% in Lilongwe East district and 6.8% in Neno district. In both districts, this was above the WHO threshold of 5%. After a thorough execution of Mass MDA exercise in both districts, TF reduced to 1.9% in Lilongwe East and 0.3% in Neno shown by impact survey results. This meant that trachoma was reduce to elimination levels subject to surveillance survey results.

Lesson learnt: MDA, if done thoroughly, is a quick way of eliminating TF in trachoma elimination efforts. It is important to support this achievement with Facial cleanliness and Environmental improvements (F&E) to prevent spreading of the disease again from the remaining few people with the disease.

TUPE149

Activating family health groups and skilling health workers to improve ANC service uptake at Kitagata Hospital- Sheema District, South West Uganda; **Grace Akot¹, Asimwe Phiona², Kapsandui Tonny¹, Ndagire Kisakye Gloria¹, Kyomugisha Evelyn², Kagurusi PT¹, Wasike Samuel¹ | ¹Amref Health Africa, Uganda, ²Uganda local government, Uganda**

Background: Antenatal care provides an opportunity to screen, detect, prevent and manage pregnancy related complications. To ensure quality, focused antenatal care is recommended to address targeted concerns at specific stages of pregnancy. At a Kitagata hospital, a referral facility which serves a population of 39,971 a year, a total of 2000 expected pregnant women are expected to complete 4 ANC visits every year. In 2017, 4th visit attendance in the hospitals catchment averaged 82% of all the 1st ANC visits. Yet that at the hospital, the average 4th visit attendance peaked at 70%. We describe the process of improving 4th ANC visit uptake at the Hospital.

Methods: Between January and June 2017, the USAID RHITES SW project trained, tooled with job aids and mentored 38 health workers (doctors, midwives, nurses) from Kitagata Hospital to provide FANC. Additional knowledge sharing and mentorship sessions were conducted over 3 months. FANC supplies such as Long Lasting Insecticide treated mosquito nets were also provided to support delivery of a comprehensive FANC package. As part of a strategy quality improvement a FANC focal person was identified to lead implementation and monthly FANC performance monitoring. At community level, 20 community family health groups which comprised 15 members of women and men and conducted weekly home visits, were activated through training and supervision to create ANC demand and refer pregnant women for service uptake. Routine HMIS data on ANC 4th visit attendance for the period Oct 2017 to June 2018 was extratracted from DHIS2, checked for consistency and analyzed.

Results: ANC 4th visit uptake increased from 70% (Oct-Dec 2017) to 73 % (Jan-march 2018) and 91% (April-June 2018).

Conclusion: Improved quality of ANC by provider capacity building, availability of supplies, team and facility leadership performance and demand creation through family health groups improved ANC 4th visit uptake.

TUPE150

Improvement of ANC 4th visits outcome at St. Mother Francisca Lechner Rushooka HC II (Rushooka H C II); **Niwamanya Medard¹, Biryēja Tarsisio¹, Marlene Webler¹, Tonny Kapsandui¹ | ¹St. Mother Francisca Lechner Rushooka HC II, Uganda, ²Amref Health Africa, Uganda**

Issue: Maternal health indicators in Uganda are poor. An estimated 94% of women attend antenatal (ANC) at least once in the life time of a given pregnancy, and only 45% of women in the rural areas make the recommended four ANC visits. Rushooka HC II in Rural southern Uganda started innovative ways to improve ANC particular 4th ANC attendance.

Description: In 2014/15, the facility started by offering of an “improved” mama kit to the mothers who attended all four visits and in one of the four visits, a mother must come with the

Husband / partner. The mama kit set includes Baby set, sun suit, two pairs of socks, two baby pants, two nappies, two nappy liners, one Johnson Jelly, one engozi, among other items of the conventional mama kit, the facility also started conducting outreaches.

Lessons Learnt: The facility takes the year of 2014/15 as the baseline data for ANC1, ANC4 and they were at 596, 420 clients respectively, in 2015/16 ANC1, ANC4 to 772,718 clients respectively and in 2016/17 ANC1, ANC 4 increased to 840,612 clients. The introduction of the mama kit offers to the mothers at the end when they attend all the four ANC visit provided as incentive. Mothers made it appoint to attend and spouse where also interested.

Recommendation: In order to improve on service delivery, a simple innovative solution has the potential to significantly improve 4th ANC attendances

TUPE151

Prevalence and predictors of HIV Testing among Kibera slum residents in Nairobi Kenya; **Samuel Muhula¹, Denis Wanyama¹, Janekellen Mbae¹, Kennedy Gathu¹, Walter Kibet¹, Maria Tororey¹, Margaret Mungai¹, Meshack Ndirangu¹, Muhenje Odyilia², Peter Memiah³** | ¹Amref Health Africa, Kenya, ²CDC, Kenya, ³University of West Florida, USA

Background: Kibera, the largest slum in Africa has had many development partners, civil society organization and youth groups working with the government of Kenya to educate the population about HIV and drug abuse from the time when HIV became an emergency in Kenya. However, the prevalence and predictors of HIV testing among the residents have not been adequately studied. We describe the self-reported prevalence and predictors of HIV testing among Kibera slum residents.

Methods: A cross sectional survey was conducted within Kibera informal settlement where a total of 1,244 adult respondents were interviewed. Data was collected using a structured tool, which was administered to consenting eligible respondents identified at households. The main outcome measure was whether one has ever been tested for HIV, with Yes/No responses.

Multiple logistic regression was used to show the predictors of one being tested for HIV.

Results: Majority (67%) of the respondents were female, more than half (57%) were protestants, 63% were monogamous. Luo (28%) and Luhyas (25%) were the majority ethnic groups in Kibera.

Ninety-seven percent of respondents reported ever been tested for HIV and 5.2% reported ever been diagnosed with HIV. HIV self-testing was at a dismal 7%. HIV testing was strongly associated with being female (odds ratio (OR) = 4.86, confidence interval (CI): 2.42 to 9.76), religion (OR=0.73, CI: 0.51 to 0.96) and level of school completed (OR)=1.85, CI: 1.14 to 3.02).

Conclusion: Being female, religious and having completed post graduate school are significant predictors of testing for HIV. Therefore, male, those who do not associate with any religion and those with little education should be reached out to and offered HIV education and testing to ensure that everyone within Kibera slum is tested for HIV and increase HIV selftesting.

TUPE152

Improving Maternal Newborn and Child health services uptake through innovative community level interventions. Best Practices of Village Health Teams (VHTs) in Amuru District; **Apire Samuel¹, Tonny Kapsandui¹, Olok Francis¹ | ¹Amref Health Africa, Uganda**

Issues: Project baseline revealed that cases of neonatal sepsis registered at health facilities were almost non-existent (0.6%), at the household however 43.5% of mothers reported that their children fell ill during the first 28 days after birth. Only 4.3% of the Mothers delivered at health facilities while women who attended the 4th Antenatal Care visits were at 11.7%. This provided an indication that in order to promote utilization and access of MNCH health services, a community based lifesaving approach needed to be implemented.

Descriptions: VHTs, a community health cadre were trained and equipped to be able to promote community based behavior change and access to key lifesaving interventions for both the mothers and the children at household levels. Just for the period between Januarys - June 2018, the VHTS have been able to visit 4,391 households. The visits focused on delivery of key health services to pregnant women (40.62% of the households Visited) and breastfeeding mothers (58.62% of the households visited). Data analyzed from VHT reports from the interventions indicates that only 9.92% of deliveries still happened at home with the rest having been supported to go deliver at the Health facility. For the 1,783 households visited with pregnant women, VHTs referred 66.01% of all pregnant women visited Most referrals were for Goal Oriented ANC (40.36%) and 28.29% due to malaria in pregnancy for management at the health facility. Of the 2574 households with lactating mothers visited, 19.85% of breastfeeding mothers were identified with danger signs that required referral to the health facility. A high proportion of these (19.71%) had high fever, 3.91% showing signs of Sepsis.

Lessons learnt: VHTs can accelerate access to Life saving Health services if only equipped to provide timely HH counseling and follow-up.

Recommendations: Strengthen VHT data management and timely reporting including periodic Supervision.

TUPE153

Validating an mLearning Framework for Cost Effectively harnessing Technical Knowledge Artifacts for Enrolled Midwives; **Charles Maina Mungai¹, Wim Vanhaverbeke², Peter Ngatia¹, Paul Muyinda³ | ¹Amref Health Africa in Kenya, ²Hasselt University, Kenya, ³Makerere University, Uganda**

Issue: “Validation or usability evaluation is the process of data collection relating to the users’ perceptions of a product in relation to a specific use in a particular environment”. In other words, it is the extent to which a product can be used by specified users to achieve specified goals with effectiveness, efficiency, and satisfaction in a customised context of use.

Validation is an indispensable quality assurance mechanism for systems designers and leading mobile telephone companies have adopted a checklist of things to ensure that any designed system conforms to the guidelines. It is a vital task that ensures that an established framework is accurate, sufficient in speed and ensures the safety of the user from strain and injury. This put differently, validation is authentication for effectiveness (simplicity and accuracy), efficiency (speed and features) and satisfaction (safety and attractiveness).

Description: This paper validates a mLearning framework for cost effectively harnessing technical knowledge artefacts for enrolled midwives. This framework was developed to aid enrolled midwives access technical knowledge from different medical practitioners so as to enhance their efficiency and effectiveness. The framework was motivated by the enormous developments in the mobile telephony industry and a growing range of applications of mobile devices. The mobile telephone industry continues to scale up rapidly, with a total of over 5 billion unique mobile subscribers as of June 2017.

Lessons Learnt: Through open innovation approaches, mobile solutions have assisted underdeveloped countries with the opportunity to overcome socio-economic challenges, especially in the area of financial inclusion and education. In Uganda, mobile devices, especially the mobile phones have notably been used for payment of utilities, business bills, mobile money transfers and, of late commercial banking.

Recommendations: As such extending the use of mobile devices in improving the efficiency and effectiveness of enrolled midwives presents the need for validated actionable research.

TUPE154

Youth-friendly Pill Boxes- solution to poor ART Adherence; **Uwase Nadege Munyaburanga | Kigali Hope Association (KHA), Rwanda**

Issue: Youth-friendly Pill Boxes- solution to poor ART Adherence Pill boxes have often been used in the past to help patients with chronic diseases to take their medication regularly. As well as for people living with HIV, this same technique has been used. Today, the challenge of poor adherence to ART among AYPLHIV has evolved immensely in Rwanda leading to drug resistance. This is slowly reversing the theory of "Treatment as prevention" which has been proved by various scientists worldwide.

Description: Pillboxes are inexpensive and easily used and most importantly this cost effective intervention can influence YPHIV by inciting them to adhere to ARVs as it should. Actually, there is no data about their effect on adherence to ART medications in Rwanda. However, from testimonies given by YPHIV who use the pillboxes, they stated that the adherence to treatment can be improved and is associated with a decrease in viral load. They also stated that it increases their privacy in public places, schools and also during travels. Pillboxes should be a standard intervention to improve adherence to ART.

Lessons Learnt: Incomplete adherence is the most common cause of suboptimal response to medical therapy. And incomplete adherence is associated with the development of drug-resistant infection, disease progression and death. There are varieties of pill boxes, but for this particular project, we wished to have unique "youth friendly pill boxes". The usual ones have many chambers ranging from 7-30. This helps patients to easily identify which tablet they will take per day. The youth-friendly pill boxes would be designed for easy carrying (portable), attractive to the patient and with not more than three chambers. According to young people living with HIV, transportation issues and fear of disclosure due to stigma could lead to non adherence patterns.

TUPE155

Improving Tuberculosis active case finding among street families in Starehe Sub County, Nairobi Kenya.

Gloria Wandeyi¹, Tabitha Abongo¹, Patrick Igunza¹, Ulo Benson¹ | ¹Amref Health Africa, Kenya

Background: According to World Health Organization, acceptability of conducting Tuberculosis (TB) screening among street families has not been rigorously scrutinized. However, it is clear that screening programs for street families can be complex due to varying legal requirements. Street families are marginalized communities and live in isolation from mainstream society. Living on the street aggravates existing health challenges and is intensified when diagnosis is delayed. This population self-medicate and are increasingly being criminalized. They have disproportionately low access to prevention, treatment, care and support services. Starehe Sub County hosts most of homeless families in Nairobi County, majority being children below 18 years.

Methods: Community Health Volunteers (CHVs) in collaboration with Community Health Assistants (CHAs) mapped the dwellings of the street families commonly referred to as 'Maskani' and health facilities around. Gatekeepers to the Maskani were identified and sensitized on TB and human rights issues. Each CHV was assigned ten Maskanis to visit, refer symptomatic cases and trace lost to follow-up patients. Gatekeepers provided directly observed therapy (DOT) that further strengthened the follow-up system. Nursing mothers on treatment were supported with nutrition supplement regardless of their body mass index. This served as an incentive for the mothers to complete treatment. Review meetings with the health care workers and CHVs enhanced treatment services at health facilities. The gatekeeper was supported with milk and bread.

Results: From January 2016 to November 2017, 52 Maskanis were visited, 280 clients from the target groups were screened for TB. Of this, 211(75%) were symptomatic, 92(43.6%) were tested and bacteriologically confirmed to have TB. Forty-eight (52%) of the confirmed cases were started on treatment, 28(58%) interrupted treatment, 16(57%) were traced by the CHVs and returned to treatment.

Conclusions: Advocate to the county to identify a place for "home & food" to improve Daily DOTs and case holding.

TUPE156

Exploring how different incentives influence community health workers' performance on family planning; a case of Msalala and Shinyanga District Councils; **Frida Ngalesoni¹, Ingrid Zuleta², Josiah Otege¹, Zando Mkwazu¹, Scholastica Lucas¹ | ¹Amref Health Africa, Tanzania, ²KIT Royal Tropical Institute, The Netherlands**

Background: In 2012, Tanzania committed to increase access of 4.2 million more women to Family Planning by 2020 (WHO, 2013). Already since the 1950s, Community Health Workers (CHWs) have been involved in Family Planning (FP) to reach communities and to complement facility based services in rural areas (Bellows, 2014; Foreit, 2011). In Tanzania, the Health Sector Strategic Plan IV 2015-2020 includes costed plans aimed at developing the CHW cadre to efficiently provide reproductive, maternal, new-born, child and adolescent health services, including FP. While this could have spearheaded CHWs' recognition through deployment at the level of the Ministry of Health, CHWs' deployment has mainly been supported by donors and non-governmental organizations who also have determined their incentives. The plurality of Tanzania's CHW programme has resulted in limited evidence on what exact incentives - whether monetary, non-monetary or both - influence CHWs' motivation and performance in provision of FP services. More insight can support appropriate policy and programmatic recommendations on how CHWs can further catalyze the improvement of the Tanzanian FP program.

Methods: Existing studies have sought to explore the possibility of extending roles of CHWs in FP, such as administration of injectables, or have looked at how different types of incentives influenced CHW motivation or performance in other fields. This study aims at exploring which incentives influence CHW motivation and performance on FP.

This study will be conducted in two districts (Msalala and Shinyanga) and will deploy a qualitative approach. Through focus group discussions with CHWs, in-depth interviews with CHW supervisors, and key informant interviews with policy makers at district and regional level, we seek to explore contextual experiences and perceptions around incentives that affect motivation and performance of CHWs on executing their roles in FP. Data collection will take place in December 2018.

Expected Results: Preliminary results are expected in February 2019.

TUPE157

Factors influencing the role of community health volunteers in increasing access and uptake of family planning services among the youth aged 18-24 years in Narok and Homabay Counties in Kenya; **George Oele¹, Hermen Ormel², Happiness Oruko¹, Sarah Karanja¹, Beatrice Oluoch¹, Dorcus Indalo¹ | ¹Amref Health Africa, Kenya, ²KIT Royal Tropical Institute, The Netherlands**

Background: Sexual and reproductive health (SRH) programming for married and unmarried youth aged 15 to 24 is critical to improve the health, social, and economic outcomes of future generations. However, youth face more barriers to accessing and using contraception than older people, including provider refusal, restrictive laws or policies, limited contraceptive options, stigma, and sociocultural pressures to have children early to date, there is no specific attention for family planning (FP) service delivery to youth by CHVs in Kenya. Engaging CHVs meaningfully and empowering them to carry out their tasks effectively can positively influence the access and uptake of family planning services among the youth in Kenya. A knowledge gap exists, however regarding this topic at the crossroads of CHVs and young people's SRH/FP needs. This study aims to explore factors influencing the role of CHVs in increasing access and uptake of FP services among the youth aged 18-24 in Narok and Homabay Counties in Kenya.

Methods: For this study a qualitative approach is chosen to provide insights into the perceptions and preferences of youth on access to FP service from CHVs and other providers and the perceptions of CHVs in providing family planning services to the youth. Moreover, it will assess the enabling environment for CHVs in provision of FP services to the youth. This study will make use of existing data and collect new data through semi-structured interviews and focus group discussions. Data collection will take place in December 2018.

Expected Results: Preliminary results are expected in February 2019.

TUPE158

Finding the missing people with TB in Kenya: innovative interventions from civil society organisations as local solutions for underserved and key population groups; **Benson Otieno Ulo¹, Anne Gorreti Munene¹ | ¹Amref Health Africa, Kenya**

Of Kenya's 169,000 people estimated to have developed TB in 2016, routine health services missed more than 92,000 people according to the National TB prevalence survey. With Global Fund's Catalytic Investments, the country has prioritized finding the people missed with TB cases, through more people-centered, human rights based and social protection approaches in TB service delivery and an emphasis on key populations. This presentation will showcase how the National TB Programme (NTLD), through NGO Amref Health Africa, is implementing its first-ever Kenya Innovation Challenge Fund for TB. (KIC-TB) This seeks to generate demand and provides two-year financial support to county-specific, innovative interventions from civil society organizations as local solutions for underserved and key population groups. The KIC-TB complements the NTLD's national TB response with empowering community-based organizations to set up tailored responses through active involvement of communities in identifying and addressing barriers towards reducing their local TB case detection gaps

TUPE159

Impact of the decentralization of screening in the treatment of Cervical Cancer in Southern Senegal; **Bara Ndiaye¹, Alioune Diouf¹, Mamadou Diouf¹, Khaltoume Camara¹, Mouhamed El Bachir Lo¹ | ¹Amref Health Africa, Senegal**

Issue: In a context of a deficit in access to treatment whose delay in detection observed globally in 70% of cases according Amref Health Africa's rapid assessment conducted in 2017, Amref Health Africa initiated an initiative focused on the decentralization of cervical cancer screening in the Kolda Region in order to improve health indicators in management of cancer where Senegal is facing with enormous challenges

Description: The intervention strategy is based on screening and early treatment of precancerous lesions with a referral system for the treatment of positive screened women. The innovation here is the decentralization of cancer care through a multi-actor mobilization to minimize bottlenecks and offer to women a comprehensive package of services. The technical platform is raised by the equipment of cryotherapy machines and supplies. Local staff are then trained through a pool of specialists. Routine service and integrated outreach interventions with existing MNCH programme are conducted by local trained provider teams. Ongoing communication for access to information and sustainable behavior change is provided by CHWs.

Lessons Learnt: A total of 22 screening units setted up, 2 cryotherapy units installed in remote Health Districts, 30 health care providers trained on the use of cryotherapy and 50 health care providers retrained on early cervical cancer detection. A total of 1028 women screened, 26 precancerous lesions treated and - 4 cervical cancer cases reffered

Recommendations: The decentralization of cancer in addition of improving access to cancer care in remote areas, offers to the Women of Reproductive Age the opportunity to benefit from a package of high and specialized MNCH services through Telemedecine suitcase.

TUPE160

Kreative Hub initiative as a platform for youth voices to be heard, to fight against noncommunicable diseases and stigma;
Ogweno Stephen | Stowelink/Non Communicable Diseases Alliance (NCDAK), Kenya

Issues: This abstract paper deems to address issue 4.4 on social accountability and the unheard voice of citizens: activating communities to demand for the right to health.

Description: The youth community has always been neglected when it comes to non-communicable diseases discussions, intervention and initiatives. Recent research shows that NCDS actually affect the youth and as a result a lot of members in the youth community face depression, stigma and suffer alone due to non-communicable diseases. Due to this problem Stowelink, which is a youth based organization focusing on NCDS sensitization started the Kreative Hub clubs- Our Voices Our Stand which is a video series project which identified youths who are living with these non-communicable diseases. The project deems to change the perspective on non-communicable diseases in the youth, highlighting the challenges the youths face in accessing services and the stigmas associated with NCDS on the youth. But more importantly the project aims at demanding for the right to health for all without discrimination and also changing the perspective of youths living with non-communicable diseases.

Lessons learnt: Youths have been neglected especially in the non-communicable diseases area and we need to get our voices out. The best way to do so is to use influential youths who've been through non-communicable diseases and are willing to talk about it. We amplify these voices by using our social media influence to change the perspective. These stories will be made available to stowelink.wordpress.com.

Recommendations: Governments should actively support such initiatives to get to the youth networks and get their voices out. And multisectoral approach and collaborations is key in amplifying youth voices thus ensuring right to health and stigma free environment.

TUPE161

Willingness and ability to pay for sanitation systems of choice among rural populations. A study of Busia County in Kenya; **Paul Agina | Amref Health Africa, Kenya**

Background: In Kenya, only 30% of the population access improved sanitation. Community led total sanitation methodology (CLTS) is a non-subsidy based approach developed to empower communities to quit open defecation practices. However, latrines built through CLTS do not meet the criteria of improved sanitation. The sanitation promotion campaign envisions that households and communities will provide financial contribution influenced by willingness and ability to pay for sanitation systems of choice. Due to limited reliable data the study addresses the information gap on the willingness to pay (WTP) for improved sanitation.

Methods: The study was conducted in Busia County employing the contingent valuation method (CVM). The study adopted dichotomous and close ended questionnaires examining: socio-economic and demographic characteristics; household incomes and expenditure; and financial inclusion. The design was a cross sectional study and targeted household heads. The sample size was 784 where 59.4% were male respondents. It was calculated through combinations of multi-stage cluster, systematic and simple random sampling techniques. Data was analysed using SPSS version 17 with significance set at 0.05.

Results: From the above findings, the state of sanitation in Busia County is poor and the people who are willing to pay to upgrade the state of their latrines is 10% which is dictated by the willingness to take a loan, monthly payable amount and preferential option

Conclusions and recommendations: The study concluded that sex, satisfaction with existing sanitation systems, option of preference, ability to pay, willingness to take a loan and inflation had an effect on WTP. However, marital and employment status did not affect willingness to pay. Educational programs are recommended to promote ability to pay for sanitation; concerned parties including authorities can provide improved sanitation and upgrade facilities and sensitization for the divorced and widowed on the benefits of improved sanitation.

TUPE162

Addressing the ever-growing health costs of health services through improving community hygiene; **Brian Mutabazi | Amref Health Africa, Uganda**

Background: This project aims at addressing the ever-growing health costs of health services through improving community hygiene. Globally, it is estimated that 2.5 billion people lack access to improved sanitation. The lack of adequate sanitation and safe water has significant negative impacts on health. It is also on record that poor sanitation is the second leading cause of poor health. Therefore, proper hygiene would help to reduce on the costs of poor hygiene in the community.

Methods: The study was carried out in Nyero sub county, Kumi District, eastern Uganda, (150 miles (240 km) northeast of Kampala) through Community diagnosis participatory meeting whereby the researcher had to transect walk through the community and directly interacted with Nyero sub county community, both men and women. Data was collected using, interview, focus group discussions and observation. During the study, key Nyero community informants were indentified and included in the study as they were knowledgeable of health issues affecting them. The community members were involved in the study, diagnosis meeting and were able to identify health problems affecting the community and together with the researcher, problems were prioritizes by show of hands, poor hygiene emerged as the major problem followed malaria. Appropriate strategies were raised in order to solve the problem as addressing community hygiene.

Results: Community members suggested that proper hygiene such as: proper disposal of human waste products into latrines, safe water, clearing of bushes around home, observation of environmental sanitation and as can help to address the growing health costs of health services since these can be done by the community and volunteers freely.

Conclusions: In summary, this project used the community members to improve on sanitation whereby they were involved in practical cleaning of latrines, wells and clearing homestead.

TUPE163

Investigation of aflatoxin in cereal crops, milk and local beverages, and farmers' perception towards aflatoxin in Wolaita Zone, Southern Ethiopia; **Kassahun Negash | Amref Health Africa, Ethiopia**

Background: Mycotoxins are toxic substances produced as secondary metabolites by fungi. The occurrence of mycotoxins in agricultural commodities is a major health concern for livestock and humans alike. There is scanty national surveillance on level of exposure to aflatoxin from cereal crops and related food items including local beverage prepared from maize. Research conducted to determine the level of Aflatoxin B1 and B2 in cow milk, local beverage, and cereals and knowledge, attitude and practice of farmers towards Aflatoxin.

Methods: A community-based cross-sectional, mixed methods were used to study aflatoxin systemic exposure in people living in rural communities of Wolaita Zone of Southern Nations, Nationalities and Peoples' Regional State (SNNPRS) in Ethiopia. Laboratory examination was made to evaluate the level of Aflatoxin contamination in cereal crop (maize), milk and local beverages. While a structured questionnaire was used among 234 farmers about their perception. Both laboratory and interview data were collected in similar location,

Results: Data on type of cereals (grains) consumed by the interviewees revealed that maize is the most widely source of food among the households surveyed, consumed by 232 households (99%). Only 129 (55%) survey respondents had awareness and skill on the prevention of Aflatoxin through drying and proper storage. The majority 86.5% of the respondents aware of Aflatoxin through mass media and 12.6% through health workers. From the total of 24- maize, 24 -local beverage and 15 milk samples the level of Aflatoxin in all samples was 0 µg/kg

Conclusions and Recommendations: Despite there is no Aflatoxin detected in all samples, almost 45% of the respondents have no knowledge and skill how to store and dry the local product which has high probability the product to be exposed by Aflatoxin after harvesting. Thus, continuous education and periodical assessment is required to prevent Aflatoxin in this community.

TUPE164

Community engagement in disease surveillance for prevention and prompt action-Track accountability; **Kassahun Negash | Amref Health Africa, Ethiopia**

Issue: Community event-based surveillance enhance timely investigation and rapid detection of rare and new events that are not specifically included in indicator-based surveillance. Once community representatives report events that occur in populations which do not access health care through formal channels, the woreda Rapid Response Team undertake rapid risk investigation, assessment, and confirmation. However, equipping the community with diseases specific standard definition may help to actively engage them in the intervention.

Description: To improve the community health preparedness and rapid response system in selected woreda of Gambella region, the project supported by BMSF and had provided capacity building training on community-based disease surveillance and response for 281 community health development Armies who are working as health volunteers in their kebele or village to identify and track diseases and other public health events for immediate reporting and to contribute to rapid detection, reporting, confirmation, assessment of public health events including clusters of disease, rumors of unexplained deaths.

Lesson learnt: In 2016 and 2017, a total of 1,161 rumor cases were reported in the project woreda by health workers (24%), self (22%) and trained community volunteers and community (54%). Of 1161 reported events, 96% of them had been investigated and verified by Rapid Response Team within 24 hours; feedback were provided to the source of the reporting and only one Guinea worm case had been confirmed. From this, we have learnt that rumors largely generated false alerts but investigation is important to rule out false cases. Need to build the capacity of community volunteers in identification of cases to minimize false call.

Recommendations: Capacity building of the community volunteers is very crucial to get continuous report from the village. The Rapid Response Team need to have a plan to have regular visit and meeting with community volunteers to encourage regular reporting.

TUPE165

Intra-County disparities in water access: a comparison of 4 Subcounties in Kajiado County; Kennedy Omwaka | Amref Health Africa in Kenya

Background: Access to sustainable safe water remains a global challenge with approximately 844 million people in the world still lacking basic water access. Waterfetching burden influences the volume of water collected by households and time spent on income generating activities, which in turn adversely affect health, education and socioeconomic development particularly for women and girls. Much has been done on geographic, socio-cultural, and economic inequalities in water access at global, regional and national levels but little has been done to highlight intra-county disparities at sub-county level.

Methods: We conducted a cross-sectional study to compare water source types and access in 4 sub-counties in Kajiado County to highlight existing disparities. Data on water source types, time taken and distance covered to fetch water from the source was collected from a random sample of 732 households distributed among the four sub-counties in proportion to their respective populations.

Results: The study found a significant association between sub-county and access to improved water sources ($\chi^2(3, N = 718) = 208.508, p < 0.001$). Kajiado South Sub-county had the highest proportion of households with access to improved water sources (94.1%), followed respectively by Kajiado Central (83.1%), Kajiado East (68.4%) and Kajiado West (21.8%). Distance to water source was significantly different (Kruskal Wallis p -value < 0.001) among the four sub-counties. The median distance was least for Kajiado South (265.41M) followed by Kajiado West (388.26M), Kajiado East (412.75M) and Kajiado Central (434.63M). Water-fetching time was also significantly different (Kruskal Wallis p value < 0.001) among the four sub-counties with the median round trip time (in minutes) for Kajiado South (256.68) being the least followed by Kajiado East (327.90), Kajiado West (438.11) and Kajiado Central (452.11).

Conclusion: There are significant disparities in water access among Kajiado sub-counties which should be considered during water interventions for more equitable access and related outcomes.

TUPE166

A Bibliometric analysis of mental health research in Eastern Africa; **Purity Mwendwa¹, Thilo Kroll² | ¹Trinity College Dublin, Ireland, ²University College Dublin, Ireland**

Background: The burden of disease related to mental health conditions is on the increase globally with over 450 million people affected worldwide according to the WHO. In sub-Saharan Africa (SSA) the number of years lost to disability as a result of mental and substance use disorders increased by 52% in 2015, yet mental health is often seen as a lesser priority compared to combating infant mortality, HIV/AIDS, or other infectious diseases. Stigma, a lack of information and resources are seen as key barriers to addressing mental health in this context. The historical absence of mental health from the public health agenda in this context has inevitably impacted upon mental health. Mental health research capacity in SSA is essential to enabling the indigenization of local mental health practice to reflect the diverse realities of Africa's health systems. This paper presents the characteristics and trends in published mental health research conducted in 13 countries located in the EA Region in the past 10 years.

Methods: A comprehensive bibliometric search was conducted using the following databases; PubMed (National Library of Medicine, National Institutes of Health), SCOPUS (Elsevier), Web of Science (Thomson Reuter) and EBSCO (Africa-Wide, CINAHL and MEDLINE). The search was conducted by 2 independent researchers.

Results: Bibliometric analysis reveals that while research publications on Mental Health in EA are limited they have been increasing since 2008 with collaborations between African and Western countries.

Conclusion: This review provides an insight into research trends and research advances on mental health and will provide useful information to government bodies and the funding community in terms of addressing the mental health burden and offer recommendations to the scientific community about strengthening mental health research capacity in EA.

TUPE167

New research develops a standard tool for the measurement of older person's health and well-being in Kenya and explores disease burden and health determinants; **Lucy Maina | Kenyatta University, Kenya**

Issue: A research on Health and well-being of older persons in Kenya: Tackling the data gaps and needs has developed a research framework for routine generation of evidence on the health and wellbeing of older persons in Kenya to provide baseline data for future research. The standard tool for measuring health and wellbeing among older population in Kenya was developed, validated and piloted in Kiambu County, Kenya.

Description: The project is a partnership between the University of Southampton-UK through the Centre for Research on Ageing and Kenyatta University alongside the Ministry of Labour and Social Protection, State Department of Social Protection, Pensions and Senior Citizens Affairs (Kenya) as core partners. The developed and validated tool for assessment of health and wellbeing of older people in Kenya provides a broad framework for examining disease and disability burden among older people in Kenya; status and determinants of health and wellbeing among older persons while identifying strategies that can enhance the health, psycho-social and general wellbeing of older people.

Lessons Learnt: The project provided guidelines for policy and intervention for enhancing health and well-being of older persons who are currently largely untargeted in the provision of UHC efforts. The study has also strengthened the research capacity of the collaborating partners in the research project namely the Ministry of Health, National Council for Population and Development, Kenya National Bureau of Statistics and Help Age International. This ground breaking project brings to fore the key health challenges affecting Kenya's older population and enriches the prospects of health programming and provision for older persons who are especially burdened by non-communicable diseases most of which are preventable. The project augments current efforts 'Towards Evidence Revolution on Ageing in Kenya' and is funded by the Newton Fund -Institutional Links Grant Call of April 2017

TUPE168

Making the case for integrating global health security with universal health coverage; **Jerry Martin | DAI, United Kingdom**

Issue: Episodic and unpredictable disease outbreaks such as the 2014-16 West African and current Ebola outbreak in DRC, and avian influenza in Southeast Asia are recent examples of epidemics that have either strained country health systems, affected food chains, and impeded communities across the African continent from building the resilience needed to bounce back from such shocks. While there is consensus on the need for strong health systems, there is less agreement on how to go about strengthening systems in resource constrained settings that experience multiple or sustained stresses.

Description: Through analyses looking at how to strengthen health systems in order to achieve Universal Health Coverage (UHC), it is proposed that broadening the definition of the health system to explicitly include health security rather than addressing it separately is one way to approach this challenge.

Lessons Learnt: Typically, global health security focuses on building country capacity to prevent, detect and respond to disease threats bringing together experts in human and animal health, laboratory science and emergency response. However, this high-level collaboration risks being implemented as a vertical program that does not take into account the countries' day-to-day health needs and neglects to take full advantage of the resources – funding, facilities, human resources, medicine and medical supplies, and data – even though these same assets play a key role of identifying and mitigating a health crisis.

Recommendations: This presentation lays out four recommendations for UHC and global health security integration, (including new models for funding) to support strong health systems – robust HIS, medical laboratories, point-of-care facilities and staff – as the foundation for addressing public health emergencies when they do occur.

TUPE169

Can performance scorecards promote community involvement in regulatory enforcement? A process evaluation of an innovative regulatory intervention in Kenya; **Irene Khayoni | Strathmore University, Kenya**

Background: Many low- and middle-income countries recognize the limitations of traditional command and control approaches to facility regulation, leading to the emergence of innovative models. However, the focus of regulatory innovations largely remains the providers. In Kenya, the Ministry of Health and the regulatory agencies developed and piloted a riskbased regulatory regime called the Kenya Patient Safety Impact Evaluation (KePSIE), which involved intensified inspections using a single comprehensive checklist. A key innovation was the display of performance scorecards at healthcare facilities. These scorecards gave facilities a rating on inspection performance of A (highest), B, C or D. We conducted a qualitative study to explore the implementation and perceived impact of the publicly displayed scorecards.

Methods: The study was conducted in the three KePSIE pilot counties (Kakamega, Kilifi and Meru) using a qualitative approach. We conducted in depth interviews with health facility workers, inspectors, patients, community representatives from health facility and community health committees to obtain a broad community perspective. Interviews were recorded, transcribed and analysed using the Framework Approach in NVIVO.

Results: Majority of community representatives, patient and health facility committee members had not seen or understood the score card despite them being nearly always displayed at facilities. The scorecard failed to reach the target audience, but most health facility workers were bothered by them and felt motivated to comply with the basic minimum standards.

Conclusion: Scorecards are an important tool that can be used to encourage health facilities to comply to basic minimum safety standards. In this case, the clear majority of patients and community representatives we interviewed had not seen the cards and couldn't interpret them correctly even when we showed them. As such it would be beneficial to involve community health volunteers a bit more in educating the public about the scorecards as they appeared to be more enthusiastic.

TUPE170

Availability & affordability of sexual and reproductive health commodities (SRHC) in Kenya, a case study of 9 counties; **Dorothy Okemo | HAI/ MeTA, Kenya**

Background: Good sexual and reproductive health is essential for the well-being of every man and woman. This can be achieved with improvements in access to sexual and reproductive health (SRH) commodities. There is need of engaging multi-stakeholders and forging meaningful public private partnerships for accelerated access to health. The main objective of the research was to generate reliable information on access to SRH commodities across public, private and mission sectors.

Methods: We used a cross-sectional design with quantitative methods and a semi structured questionnaire. We trained 18 research officers in Kenya who visited facilities in the three sectors both in the rural and urban settings. A total of 169 facilities were surveyed across 9 counties in Kenya.

Results: The research showed that mean availability of SRHC in Kenya was 33% down from 46% in 2017. While most of the SRH Commodities are provided for free in the public facilities, the cost of these commodities is prohibitive in the private sector. In the public 23 out of the 53 surveyed experienced stock-outs. Chlorhexidine, for cord care, had low availability across the sectors, with availability of 11% in public facilities. Gentamicin injection for example cost 1.23 days' worth of work based on Lowest Paid Government Worker. This is tragic considering that Gentamicin treats pneumonia and sepsis both of which are life threatening. Decreased availability needs to be investigated and corrected to ensure that as a country we stay on track on the health commitments and see an improvement in the various indicators.

The runaway stock out of medicines is another issue that needs to be addressed through strengthened supply chain issues.

Conclusions and Recommendations: Advocacy to increase acceptability and access to SRH commodities in the mission sector who are an important player in provision of healthcare services is also needed. Accelerating universal access to SRH Commodities through public private partnerships

TUPE171

Tribune santé ado et jeunes, une plateforme pour favoriser l'accès des jeunes aux services de santé sexuelle et reproductive;
Tao Oumar | Association Burkinabè pour le Bien Etre Familial, Mexico

L'association burkinabè pour le bien-être familial (ABBEF) à travers son mouvement d'action des jeunes (MAJ) a bénéficié d'un financement de la part de la fédération internationale pour la planification familiale (IPPF) afin de mettre en oeuvre un projet innovant dénommé "youth connect".

Dans la mise en oeuvre du projet, plusieurs activités ont été mise en oeuvre à savoir: La conception, le montage et la diffusion des microprogrammes audio et vidéos pour sensibiliser le réseau social whatsapp La rédaction et la diffusion des articles qui ont été publiés sur wordpress avec un partage sur tous les réseaux sociaux La réalisation des activités de whatsapp tchat et de tweet up Dans la mise en oeuvre une équipe de 10 jeunes issues de 04 grandes villes du Burkina Faso ont été formés sur le blogging, l'utilisation des réseaux sociaux. Aussi une autre formation a été initiée pour les jeunes sur le filmage et le montage de microprogrammes audio et video en lien avec les droits et santé sexuelle et reproductive. Les jeunes formés étaient en même temps les points focaux du projet dans leur différente ville.

Ce projet a permis: De touché 24 900 jeunes contre 15 000 qui étaient prévu. Comprendre les défis liés à la santé de la reproduction des jeunes lors des conférences en ligne

De responsabiliser davantage les jeunes dans la conduite de projet; Renforcer les compétences des jeunes sur comment filmer, monter et diffuse des microprogrammes vidéos et audio pour des sensibilisations sur les réseaux sociaux; Renforcer les compétences des jeunes dans la réalisation de microprogramme radiophonique;

Renforcer les compétences des jeunes dans la rédaction d'articles de sensibilisation pour le blogging, ce qui a permis de développer et susciter parmi les jeunes le gout de l'écriture, des vocations pour le journalisme

TUPE172

Strengthening faculty mentorship towards achievement of Universal Health Coverage and Sustainable Development Goals: A case of 3 Universities and 3 Middle Level Colleges; **Catherine Mwenda | Amref Health Africa**

Issues: The HRH Kenya baseline capacity assessment report (2017) of medical training institutions revealed that only 29 % met the Commission for University Education recommended full faculty/student ratio of 1:7 with 71% of the institutions ranging between 1:10 to 1:34 indicative of faculty shortages in training institutions. The assessment report further revealed a gap in skills and preparedness of faculty to effectively handle their academic roles. It is for this reason that HRH Kenya deemed it necessary to support targeted universities to mentor faculty in tertiary training institutions for increasing numbers of faculty in order to deliver quality education that is responsive to HIV/AIDS and RMNCAH services aligned to UHC.

Description: Achieving Universal Health Coverage requires strengthening the faculty, learning environment and curricula for pre-service and in-service training for increased number of well-trained graduates who are responsive to Kenya's disease burden. HRH Kenya Mechanism in partnership with IntraHealth International and Amref Health Africa trained mentors from the targeted universities on mentorship and then rolled out the training to tertiary training institutions. A scope of work and training objectives were shared with the mentor institutions. A baseline survey was conducted to identify the training gaps, engagement meeting, matching of mentors and mentees and start off was done. The program was structured into seven blended learning sessions for a period of two months.

Lessons Learnt: 47 mentees were mentored on pedagogy/andragogy skills, curriculum development, skills lab methodologies, e-lab management and health facilities preparation for students' clinical experience. Mentees feedback showed a very successful mentorship exercise, mentees had gained knowledge and competencies in the gaps earlier identified, collaboration between stakeholders was key to the program success. Reciprocal mentorship enhances learning of mentors.

Next steps: There is need to cascade the mentorship program to other satellite institutions.

TUPE173

Integrating mHealth solutions into National BEmONC training to improve quality of care: The case of Ethiopia; **Lauren Smith¹, Hiwot Wubshet¹ | ¹Maternity Foundation, Ethiopia**

Background: Providing emergency care needed to manage maternal complications and care for newborns is often a challenge for health facilities. Numerous reasons affect the quality of care provided including poor compliance to evidence-based clinical interventions and practices; and poor documentation and use of information. The Safe Delivery App, Maternity Foundation's cornerstone mHealth innovation, bridges this gap by providing skilled birth attendants with direct and instant access to evidence-based clinical guidelines on Basic Emergency Obstetric and Neonatal Care (BEmONC) and essential preventive protocols. The Safe Delivery App provides life-saving information and guidance through easy-to-understand animated instruction videos, action cards and drug lists. The Safe Delivery App was recently integrated into the Ethiopian Federal Ministry of Health's new national training curricula for BEmONC.

Methods: A mixed method approach including multi-level qualitative analysis was conducted in Ethiopia to learn how the Safe Delivery App and its integration into the national training have enhanced the quality of care in both urban and rural health facilities, and in various geographical settings.

Results: Results detail how maternal health outcomes can be improved through innovate mHealth tools, namely the Safe Delivery App. The knowledge, confidence, and skills of 107 skilled birth attendants have shown to have increased over a one-year period, while country-wide qualitative analysis shows how the effectiveness and applicability of the Safe Delivery App have contributed to an improvement in managing maternal complications.

Conclusion: The Ethiopia case demonstrates the strength the Safe Delivery App and associated training programmes have to improve the quality of care in health facilities of all sizes and locations.

TUPE174

Mismatch between antenatal care attendance and institutional delivery in a multi-ethnic south Ethiopia: A multilevel analysis;
Anteneh Asefa Mekonnen | Hawassa University, Ethiopia

Background: Uptake of maternal health services remains sub-optimal in Ethiopia. Significant proportions of antenatal care attendees give birth at home. This study was conducted to identify the predictors of non-institutional delivery among women who received antenatal care in the Southern Nations Nationalities and Peoples Region, Ethiopia.

Methods: A community-based cross-sectional survey was conducted among women who delivered in the year preceding the survey and who had at least one antenatal visit. Multistage cluster sampling was deployed to select 2390 women from all administrative zones of the region. A mixed effects multivariable logistic regression analysis was performed to assess the predictors of non-institutional delivery; adjusted odds ratios (AOR) with 95% confidence intervals (CI) are reported.

Results: The proportion of non-institutional deliveries among participants was 62.2% (95% CI: 60.2%, 64.2%). Previous experience of short and simple labor (46.9%) and uncomplicated home birth (42.9%), night time labor (29.7%), absence of pregnancy related problem (18.8%), and perceived providers' poor reception of women (17.8%) were the main reasons to have non-institutional delivery. Attending secondary school and above (AOR = 0.51; 95% CI: 0.30, 0.85), being a government employee (AOR: 0.27; 95% CI: 0.10, 0.78), and woman's autonomy in health care utilization decision making (AOR = 0.51; 95% CI: 0.33, 0.79) were among the independent predictors negatively associated with noninstitutional delivery. On the other hand, unplanned pregnancy (AOR = 1.67; 95% CI: 1.16, 2.42), not experiencing any health problem during pregnancy (AOR = 8.1; 95% CI: 3.12, 24.62), not perceiving the risks associated with home delivery (AOR = 6.64; 95% CI: 4.35, 10.14) were the independent predictors positively associated with non-institutional delivery.

Conclusions and recommendations: There is a missed opportunity among women attending antenatal care in southern Ethiopia. Further health system innovations that help to bridge the gap between antenatal care attendance and institutional delivery are highly recommended

TUPE175

Remittances-based funding model: an argument for its capacity to fund and strengthen health systems in sub-saharan Africa;

Aurore Iradukunda | Canada

Remittances are defined as the money or goods that immigrants or expatriates send back to families and friends in their home countries via wire, mail or online transfers. In 2017 alone, immigrants sent \$38 billion back home to Africa according to the World Bank. In poorer countries like Somalia or the Gambia, remittances often buffer the instability caused by poverty by covering basic necessities such as school fees, food, rent and health care. In Liberia, Comoros, and the Gambia, remittances make up over 20% of GDP, making them an important and often overlooked pool of funding for development. Immigrants sending money to the African region are charged more than any other regions to send money abroad, making it an inequitable but lucrative industry for money transfer giants like Western Union. In sub-Saharan Africa, rapid mass immigration of healthcare professionals to more privileged countries--also known as medical brain drain--has exacerbated the pre-existing critical shortage of healthcare personnel that the region faces, weakening their already weakened health systems.

This paper proposes an innovative remittances-based funding model wherein remittances would be channelled through a mobile transfer system redirecting partial sums into a health development fund while escaping exorbitant costs of transfers imposed by money transfer companies. This model could have the potential to fund and strengthen health systems in sub-saharan Africa as well as to tackle the negative impacts of medical brain drain in the region.

TUPE176

Universal health coverage; measuring access to health care services by informal sector workers in Kenya; **Bernard Munyao Muiya**
| **Kenyatta University, Kenya**

Background: Achieving universal health coverage (UHC) has been a global challenge. The World Health Organization (WHO), proposes three approaches towards achieving universal health coverage: raising financial resources, purchasing health services to ensure and health insurance. Despite these options, by 2017, half the world's population lacked access to essential health services and that 10 per cent of household budgets for some 800 million people is on health care. Out-of-pocket health expenses push almost 100 million people into extreme poverty annually. This paper examines access to health care by informal sector workers in Kenya by establishing their enrolment status and patterns into health insurance schemes and the key determinants of enrolment into health insurance.

Methods: Data was from a cross-sectional survey (n = 376) and 9 focus group discussions (n = 72) of informal sector workers. Data was analysed through theme identification and Factor Analysis.

Results: Enrolment into health insurance schemes by informal sector workers was low (15 per cent), sixty-seven per cent enrolled in the public health insurance scheme and 33 per cent in d private health insurance schemes. Informal sector workers were willing to enrol into health insurance (81 percent). Barriers to enrolment were lack of knowledge (57 per cent), unaffordability (20 per cent), mistrust with fund management (10 per cent) and sociocultural (4 percent). PCA extracted two components identified as knowledge (high loading on reading of newspapers, television viewing and level of education) and demographics (high loading on marital status and number of dependents).

Conclusion: Unless appropriate action were taken, many informal sector workers remain without a health insurance cover thus having limited access to health care services and continue to suffer the numerous consequences of ill health.

Key words: Universal health coverage, informal sector, health insurance, access

TUPE177

Factors influencing utilization of health care services among secondary school pregnant adolescents in Africa; **Oyinloye Bosede Odunola | Obafemi Awolowo University, Nigeria**

Background: Despite the poor access of health care services and its implications for the mother and child in Africa, yet, little attention has been paid to secondary school pregnant girls, using a nationally comparative data in Africa. This study examines factors affecting health care utilization among secondary school pregnant adolescents in Africa.

Methods: Using the most recent DHS surveys, analyses were performed on secondary school girls aged 15-19 years who were currently pregnant as at the time of the survey in Malawi (1527), Nigeria (4875), Rwanda (1145), Sierra Leone (6443), Zambia (2183) and Zimbabwe (1702). Bivariate and Binary Logistic Regression (BLR) analysis were employed to assess the factors influencing health care services while controlling for other confounding variables. Bivariate analysis show that residence, household wealth status, religion and girl not living with parents influenced antenatal care utilization in Nigeria, Malawi and Zimbabwe. After controlling for confounding variables, multivariate analysis show that girls whose partners were not working and not exposed to media in Nigeria, Zimbabwe and Sierra Leone did not access antenatal care during pregnancy.

Results: Findings show that in order to promote the health status of pregnant adolescent mothers, government should target this group by providing economic support and increase media access for pregnant secondary school girls in order to access antenatal care during pregnancy. This would help further to reduce maternal and child mortality in Africa as well as attain Goal 3 of the Sustainable Development Goals.

Keywords: Antenatal; Household; Africa; Utilization

TUPE178

Compliance with follow up and adherence to medication in hypertensive patients in an urban informal settlement in Kenya: comparison of three models of care; **Ng'endo Kuria | Amref Health Africa**

Objective: Adherence to treatment is a worldwide concern, compounded in slums where meeting basic needs supersedes care needs. This study seeks to determine and compare, among three models of care, compliance to scheduled clinic appointments and adherence to anti-hypertensive medication among patients with hypertension in an informal settlement (Kibera, Kenya).

Methods: Routinely-collected patient data was used from three health facilities, six walkway clinics and one weekend/church clinic. Patients were eligible if they had received hypertension care for more than six months. Compliance with clinic appointments and self-reported adherence to medication were determined from clinic records and compared using the Chi-square test. Univariate and multivariate logistic regression models estimated the odds of overall adherence to medication.

Results: There were 785 patients receiving hypertension treatment eligible for analysis, of whom, two-thirds were women. Between them, there were 5879 clinic visits with an overall compliance to appointments of 63%. Compliance was higher in the health facilities and walkways but men were more likely to attend the weekend/church clinics. Adherence to medication by those who complied with scheduled clinic visits was 94%. Patients in the walkway-clinics were two times more likely to adhere to anti-hypertensive medication compared to those at the health facility (OR 1.97, 95%CI 1.25-3.10).

Conclusion: This study found that the walkway clinics outperformed the health facilities and weekend clinics. Also, the use of multiple sites for the management of hypertensive patients lead to good compliance with scheduled clinic visits and very good adherence to medication in a low resource setting.

TUPE179

A framework for cost effectively harnessing technical knowledge artifacts from different health care practitioners for improved efficiency of midwives using mobile devices; **Charles Maina Mungai¹, Wim Vanhaverbeke², Peter Ngatia¹, Paul Muyinda³ | ¹Amref Health Africa, Kenya, ²Hasselt University, Belgium, ³Makerere University, Uganda**

Background: MLearning for midwives espouses leveraging cutting-edge technology and innovation to enhance the quality of care in health facilities. The purpose of this research was to identify how co-creation of knowledge and skill artifacts to be taught to midwives using mLearning can be done cost effectively and thus construct a framework that is used to harness knowledge artifacts from different healthcare practitioners.

The research resulted in the construction of the MLearning Open Innovation Framework for Midwives (MLOIF4M).

Methodology: This study was conducted in Uganda. Design science methodology was used. The data collection tool was a questionnaire. Uganda has over 35,000 enrolled midwives. 1,230 questionnaires were issued and 880 respondents across Uganda was realized surpassing the scientific sample size requirement of 246 respondents.

EpiData® was used to capture responses and STATA® for analysis.

Results: The empirical research resulted into identifying stakeholders in mLearning for midwives who comprise the framework thus constructed.

These stakeholders are midwives, apprentice-midwives, Uganda Nurses and Midwives Council, Government, health care service providers, health training institutions, Mobile Apps developers, Telecoms, phone manufacturers and Non-Governmental Organizations. In part of the findings, 75% of the midwives were women and gender roles denied them cost effective opportunities for training. 82% of the respondents preferred mixed paper and e-learning method, propagated by the above stakeholders.

Conclusion and Recommendations: In conclusion, the MLOIF4M framework underscores the interplay between mLearning ecosystem stakeholders and derives its efficiency from stakeholders providing their input at low costs local to their own core function. Future studies intend to expand the framework to address training of other cadres of health workers using mLearning cost effectively.

TUPE180

The quality of childhood malaria case management practices in settings without microscopy, **Siril Kullaya | World Health Organization, Tanzania**

Background: Tanzania has high burden of morbidity and mortality caused by malaria which has been attributed to increasing malaria parasites resistance. Tanzania has changed malaria treatment policy twice, to reduce morbidity, mortality and economic losses and to encourage rational drug use. Resistance can happen if artemisinin combination therapies are used unjudiciously.

Objective: To examine the quality of childhood malaria case management practices using Alu and accuracy of clinical malaria diagnosis in settings without microscopy.

Methods: Cross-sectional, cluster random sampling survey was conducted in 17 government health facilities to examine malaria case management practices. Data were collected and analyzed from underfive years and their caregivers using structured questionnaires. Blood smears were taken from the selected children, processed and examined at the University Medical Parasitology Laboratory.

Results: Malaria was suspected in 846 children, of whom 62.3% were appropriately managed according malaria treatment guidelines. Presence of history of fever was significantly associated with the quality of management given to the patients (OR = 20). Of 723 children who were prescribed Alu, 63.5% were properly counseled. Alu was more likely prescribed in consultations by clinical officers (OR=1.2); which took more than 5 minutes (OR=1.9), and where Alu alone was available antimalarial (OR= 1.4). Quality of counselling was strongly associated with the counselling by the clinical officer (OR=1.4) and with experienced provider (OR=1.5). Of the suspected malaria cases, 26.0 % had laboratory confirmed malaria. Post-test probability of absence of disease in clinically positive malaria was 0.74 and post-test probability of presence of malaria parasites in clinically negative malaria was 0.115

Conclusions and recommendations: There is a lot of over-diagnosis, over-prescription and omission of true cases of malaria which compromises the quality of malaria care using in settings without microscopy. This calls for swift deployment of specific and sensitive diagnostic facilities.

TUPE181

Leveraging the power of technology in implementing integrated community case management through community health workers; **Zipporah Moraa Nyangacha¹, Kenneth Ogendo¹, Michael Kimani¹ | ¹Living Goods, Kenya**

Issue: Kenya has implemented several global strategies, with an aim of reducing the overall burden of disease. Despite these efforts, these diseases remain a leading cause of child morbidity and mortality in Kenya. Living Goods (LG) partners with the Kenyan government's ministry of health and county government's to empower communities to improve health. LG's approach involves community health workers (CHWs) conducting household visits to assess and treat households for common illnesses.

Description: In Kenya, CHWs often use referral forms to manually enter data, which hinders referral mechanisms and may cause dissemination of inaccurate data. CHWs are required to remember the treatment guideline whenever they are assessing a child, resulting in CHWs forgetting crucial steps during visits. LG's main goal is to reduce under-five morbidity and mortality. This is done by trained, coached, and supervised CHWs equipped to assess and treat children in their households, aided by a treatment algorithm embedded in mobile phones through an application. The algorithm provides guidance on diagnosing and treating diseases. The data collected is synced to a cloud database and is finally sent to an encrypted dashboard.

Lessons Learned: Once CHWs are trained, they receive mobile phones, which they use to register household, assess, and treat individuals. This helps CHWs make proper diagnoses and treat children. The phone application also has SMS reminders that help with appointments follow-ups. The application has brought digital solutions since collection and analysis of information is real-time and not delayed in any way. There is a quality assurance team that monitors and evaluate the quality of data that is generated by the CHWs prior to data dissemination. The application has made LG technologically aligned, thus keeping up with best practices in data collection and dissemination.

TUPE182

Mainstreaming of HIV services into social health insurance- cost and planning implications: Tanzania Case; **Bryant Lee¹, Kuki Gasper Tarimo¹** | **¹Health Policy Plus, Tanzania**

Background: Integrating HIV services into social health insurance (SHI) schemes can sustainably increase domestic resources available for HIV. A package of HIV services must be in the minimum benefits package of the insurance scheme. Results from select countries can illuminate options applicable for both generalized and concentrated epidemics.

Methodology: In Tanzania the PEPFAR- and USAID-funded Health Policy Plus project (HP+) assessed these options. HP+ structured its analysis to mirror the ongoing and often shifting Tanzanian policy dialogue on health insurance scale-up. This involved analyses of the current and future proportion of people living with HIV (PLHIV) enrolled in schemes. Costs to the scheme of selected HIV services were estimated based on underlying unit costs, to project the scheme's total annual expenditure. This additional liability was compared to scheme revenues and expenditures, to assess sustainability.

Results: Under the baseline scenario, 33% PLHIV could have health insurance coverage through either the NHIF or iCHF in Year 1 if HIV services are integrated into the schemes. A standard package (excluding commodity costs) of ART, PMTCT, and HTC services is estimated to cost an additional \$30 million in Year 1 (\$115 million with commodities) based on projected utilization. A plus package of HIV services (including HIV support services and VMMC) would cost \$38 million (\$124million with commodities).

Conclusion: Results suggest the financial impact on insurance schemes is manageable within the scope of existing NHIF pooled resources in the short to medium term. Some incremental expenditures can be off-set through minor premium increases. HIV integration into the iCHF Scheme will require cross-subsidization from the NHIF. While insurance schemes differ in design and implementation, this approach to analyzing integration of HIV services can be consistently applied in countries with established health insurance schemes and declining external resources for HIV.

TUPE183

Housing quality and infectious disease outbreaks in Nigeria: framework for synergistic interventions from public health and building professionals; **Oluwafemi Akande | Federal University of Technology Minna, Nigeria**

Background: Few studies have examined the influence of buildings on human health as a non-clinical contributor to achieving patient-centred health quality among the disadvantaged populations including low-income housing residents. This study assesses indoor air quality, ventilation characteristics and health risks associated with outbreaks of infectious diseases in naturally ventilated residential buildings (NVRBs) in Nigeria. The objective is to develop a framework for synergistic interventions from public health and building sector to improve patient-centred health quality.

Methods: Data (N=116) from household survey, health complaints and building characteristics from Bauchi, Nigeria comprised of occupant's exposure to indoor CO₂ emission, indoor particulate matter (i.e. PM_{2.5} and PM₁₀). Multivariate regression was used to examine the adjusted association between diseases/symptoms, building characteristics and operation and PMs and CO₂. The multivariable modelling was found to be significantly associated with the health outcomes in the univariate analysis with $p < 0.05$. In each model, the goodness of fit (Nagelkerke R² value) and significance were evaluated.

Results: 67% of the respondents are male, while 33% are female. The average household of four family members earned below \$50 monthly (i.e. \$1.25 per day). The mean CO₂ emission indicated adequate ventilation (584 ppm). Indoor air quality (i.e. PM_{2.5} (63 $\mu\text{m}/\text{m}^3$) and PM₁₀ (228 $\mu\text{m}/\text{m}^3$) was poor and exceeded the World Health Organization (WHO) guideline value of 25 $\mu\text{m}/\text{m}^3$ (PM_{2.5}) and 50 $\mu\text{m}/\text{m}^3$ (PM₁₀). Particulate matter was found to be negatively correlated to the occurrence of some of the occupants' health complaints but positively correlated with others such as tuberculosis, meningitis and chicken pox.

Conclusions: In this study certain building characteristics pose significant risk in NVRBs for certain diseases (i.e. Meningitis, Measles, Chicken pox and Influenza). Housing characteristics could be a target for public health intervention as a non-clinical contributor to achieving patient-centred health quality in Nigeria.

TUPE184

Individual and community effects of education on family planning in Ethiopia: analysis of a nationwide survey; **Helena Fawdry¹, Tariku Dejene¹, Solomon Shiferaw¹, Iona Cutforth¹, Mark Spigt¹ | ¹Maastricht University, Ethiopia**

Background: Education is a key mediator of family planning, which promotes development and wellbeing, however, 50.5% of Ethiopian women have no formal schooling. Diffusion of fertility-depressing norms through social networks might mitigate disadvantages for uneducated women in educated communities.

Methods: Effects of education and diffusion on contraceptive practices (usage/unmet need) amongst non-pregnant sexually active women was quantified using multivariate multilevel regression modelling of individual-level and aggregated community-level variables from a nationwide survey (PMA2020).

Results: 39.4% women used contraception and 18.7% reported unmet need, with significant variation based on region and educational attainment. Individual education represented the second most important predictor of individual contraceptive use, increasing usage 5-fold ($p=0.02$). Communities with a higher proportion of women with secondary education observed a 3% increase in usage ($p=0.10$), and a 1% increase in unmet need ($p=0.005$). Education's impact was context-specific, inferring greater importance amongst poorer individuals/communities and those without access to healthcare services. Muslim communities were the only communities where higher community-level educational attainment reduced unmet need ($p=0.003$). Individual factors were found to be of greatest importance for contraceptive use whilst unmet need was more accurately predicted by community variables.

Conclusion: Community educational attainment had limited impact on usage and increased unmet need, thus expansion of educational strategies targeting illiterate adults and family planning services appropriate to increased demand should be implemented. Additionally, this study has highlighted the importance of culturally-specific interventions in Ethiopia, given the notable differences related to community characteristics.

TUPE185

The effect of complementary feeding practices on nutritional status of children aged 6 – 24 months old at bungoma district hospital, Bungoma County, Kenya; **Emmy Rutto | Ampath, Kenya**

Background: Complementary feeding is the introduction of solid food and its gradual replacement of milk as the main source of nutrition. It should commence by 6 months of age. Complementary feeding practices directly reflect the nutritional status of children aged 6 – 24 months of age Bungoma District Hospital, Bungoma County. The objective of the study is to: assess the effect of complementary feeding practices on nutritional status of children aged 6 – 24 months old; establish the complementary feeding practices of children aged 6-24 months old; assess the nutritional status of children aged 6 – 24 months old; To establish the knowledge attitude and practices on infant and young child feeding from mothers and care givers.

Methods: Cross sectional study design was adopted involving 300 women that were identified through systematic sampling. Data was collected through a structured questionnaire and quantitative data collected through focused discussion groups with the caregivers. Nutri-survey software was used to analyze qualitative data collected. SPSS software version 20 was used for analysis for frequencies, percentages and summaries and presentation done in texts, tables, charts and graphs.

Results: The results on anthropometric assessment using WFH / L indices were compared with Z scores reference tables and indicated that 78 % of the children aged 6-24 months old were mildly stunted at - 1 SD due to inappropriate complementary feeding practices as established in the study.

Conclusion: This study shows that complementary feeding practices have a relationship with the nutritional status of children aged 6 – 24 months old. These children are still growing and developing therefore their nutritional status depends on complementary feeding practices. IYCF guidelines as a component of child care should be taught to all mothers attending ANC and CWC as an intervention to reduce the level of mild wasting.

Background: Several reports have recognised insufficiencies in the informed consent process prior to caesarean sections. Non-consented care is one of the contributing factors to disrespect and abuse in maternity care. This study aims to improve the quality of informed consent prior to caesarean section in a low-resource setting by implementing a standardised checklist for health workers, plus additional facility-based interventions.

Methods: An informed consent checklist for the practitioner was created based on international guidelines. Facility-based interventions consisted of a consent guide focusing on risk inclusion and a simulation training. A prospective before-after study design was used to measure the completeness of the preoperative consultation and the recollection of the indication for the procedure and common post-operative risks by the woman. Outcomes were measured by conducting exit-interviews with women who gave birth by caesarean section.

Results: Eighty women were included before implementation and 80 women after. Post-intervention, the amount of times risks were included in the consultation increased from 31.3% to 58.8% ($p < 0.05$). The overall median completeness score of the consultations increased from 3/5 to 4/5 ($p = 0.03$), with a Pearson's correlation of $r = 0.33$. The mean amount of common risks recollected by the women increased from 1.39 to 1.64 ($p = 0.048$). The inclusiveness of the topics indication, explanation of procedure, implications for future pregnancies and verbal consent did not increase significantly.

Conclusion: Our intervention package enhanced the quality of the informed consent consultation by improving its completeness. Women showed to have a better understanding of the common associated risks after implementation. This low-cost facility-based intervention shows promising results for improving the quality of preoperative counselling in challenging settings.

TUPE187

Birth defects-related knowledge and practice among women of reproductive age in Itesiwaju Local Government, Oyo State, Nigeria

David Olarinloye¹, David Dairo² | ¹Oyo State Local Government Service Commission, Nigeria, ²University of Ibadan, Nigeria

Background: Understanding of women's birth defects (BD) related knowledge among women is essential for influencing their uptake of preventive measures. Literature reported poor awareness of risk factors for BD among women in all countries. The goal of this study is to assess birth defects-related knowledge and practices of women in childbearing age in rural community in Nigeria.

Methods: This is a cross-sectional study using multi-staged cluster sampling technique, 614 women aged 15 -49 years, were interviewed in Itesiwaju Local Government Area of Oyo State, Nigeria. Data were collected with interviewer administered questionnaire and analyzed using descriptive statistics, chi-square and logistics regression at $p=0.05$.

Results: Mean age of respondents was 34.8 ± 7.7 years. Majority, 526(85.7%) were married and educated 531(86.5%). Majority, 530(86.3%) were aware of BD. Misconceptions on causes of BD were noted and include superstitions [386, 62.9%] and contact with affected person [93, 15.1%]. Risk factors identified are smoking during pregnancy [356, 74.3%], Diabetes mellitus [271, 44.1%], advanced maternal age [226, 36.8%] and maternal obesity [114, 18.0%]. While majority [379, 90.0%] knew prevention of infection and intake of vitamins during pregnancy could prevent BD, only few knew specific infections [HIV; $n=10$, 1.6% and syphilis $n=3$, 0.5%] and vitamin [folic acid; $n=74$, 12.1%]. Only few engaged in smoking [$n=7$, 1.1%] and used alcohol [$n=36$, 5.9%] during the index pregnancy. Predictors of awareness of BD are educational status (OR=2, 95%CI=0.33 - 0.90), regular attendance of ANC (OR=6.1, 95%CI=3.51 - 10.69) and occupation (OR=3.3, 95%CI=0.15 - 0.74).

Conclusion: Although majority of the women are aware of BD and its risk factors, persistence of misconceptions about causes could encourage discrimination and stigmatization. Despite low involvement of the women in birth defects-related risk behaviours, poor awareness of its preventive practices calls for awareness efforts among women.

Key words: Birth defects, alcohol, smoking, maternal age, pregnant women

TUPE188

Young people's access to sexual and reproductive health rights; the KMET model; **Patricia Teresa Nudi Orawo | KMET, Kenya**

Background: The National Health Sector Strategic Plan II 2005–2010 (NHSSP II) recognizes adolescent SRH as a priority within the Kenya Essential Package of Health (KEPH). KEPH commits itself to establish youth-friendly Sexual and Reproductive Health (SRH) services to all young people. In line with KEPH, KMET's model seeks to ensure that Youth friendly SRH services are affordable, accessible, acceptable, equitable and appropriate to meet the SRH needs of young people. The program is implemented in three counties with the highest burden of teenage pregnancy and maternal mortality in Kenya ie. Migori, Siaya, Kisumu.

Methods: KMET's youth friendly model is at two levels of interventions: a. the health facility interventions: upgrading, renovating and setting of a youth friendly clinic, supplies and equipment & staff capacity. b. The community level intervention: recruitment and training of Community Health volunteers (CHVs) and youth peer providers (YPPs) to create demand for the services; facilitating grassroots advocacy and community conversations/dialogues on Youth and adolescent health, the public private partnership approach has been adopted to ensure no missed opportunities and to galvanize towards sustainability.

Results: Although data collection continues, to date we have amassed impressive results. 14 facilities have been upgraded and offering Youth friendly services, 66 Youth Friendly service providers trained, 44 YPS and 66 CHVs trained. The clinics have registered a tremendous increase of clients below 24years seeking for RH services. From 20,046 in year one to 29971 in year 2. In terms of access and availability, grassroots advocacy and community conversation has created demand for services.

Conclusion and Recommendation: Data indicates that integrating youth friendly services is an effective way to improve access to SRH services for young people. There is need for more collaborative engagement to increase focus on integration in line with the policies, guidelines and tools; and resource allocation.

TUPE189

Determinants of access to sexual health care by adolescent LGBTI community; **Cindy Amaiza | AYARHEP, Kenya**

Background: Globally 8/10 teenage suicides are committed by young LGBTI. We are at the risk of losing an entire generation of talented individuals who feel alienated because being different is wrong. For us to achieve our 90-90-90 goals we need to ensure that everyone can access their SRH services without fear of stigmatization and discrimination. The objective is to catalyze need based approach in the packaging of young LGBTI SRH services; To create awareness of the challenges of accessing care among adolescent LGBTI.

Methods: We did home visitations to known members of our LGBTI community within Nairobi where we interviewed them to identify what key factors that affected their access to SRH care in public hospitals. We also gave questionnaires to be filled by key advocates of our community.

Results: LGBTI often shy away from accessing SRH care due to homophobic health care professionals who breach the privacy of their clients. This demoralizes their self esteem. Also these professionals rarely relate to LGBTI community, they lack understanding of their SRH needs and as such offer poor services to them. A large majority of them lack financial resources to buy their necessities let alone access private health care services this makes it very easy for them to indulge in risky behaviors. It even gets much harder when one of the partners is HIV infected. Our study showed that up to 78% of HIV infected LGBTI rarely visit CCC due to stigma and exposure of their sexual orientation instead use supplements instead of ARV.

Conclusion: In these times of rising intolerance on sexual diversity we need to come up as a society to defend the rights of LGBTI community. We have to roll out differentiated care packages for them as well as sensitive health care professionals on confidentiality.

TUPE190

Promoting Advocacy and management Of Gender Based Violence in Kuria West Sub County, Migori County; **Catherine Chacha Menganyi | Ministry of Health, Kenya**

Background:

A facility based applied observational Study in Bugumbe Health Center, between January 2016 to Dec 2017 to compare the health and legal outcomes of sexual and Gender based violence survivors. Bugumbe health Centre, served by community units that have reported significant number of SGBV survivors among young people, adding to the county prevalence. 85 Children experience sexual violence per year in Migori county, national prevalence being 14%.

Methods: All young survivors of SGBV aged 10-18 that either self-reported to the hospital after violence or were reported by others enrolled in to this observational study. 20 cases were enrolled into the study and observed, to find out who brought them to the hospital, the period it took before their hospitalization, post defilement treatment including trauma counseling, process at police station, and access to court for perpetrator prosecution and follow-up

Results: Out of 20 followed up,12(60%) either self-reported to the facility within 12 hours of the incidence or were escorted by relatives or community health volunteers. 8(40%) were reported by the community volunteers at the end of the month as not having wanted to be taken to the hospital due to parental fear or community believes. Out of the 12,6(30%) were promptly treated within the 12 hours and promptly followed up post treatment to even at the police station. Out of those followed up closely,1(5%) disappeared,4(20%) are currently in court while one has undergone full case prosecution process. 8(40%) that were not followed never went through any court process.

Conclusion: Most cases do not proceed to court ending up in kangaroo courts in the villages. Law enforcing officers have little knowledge in handling the victims of the violence. There is need for multi sectral approach, focused community sensitization and adequate training of Health care workers on management of Sexual Gender Based violence

TUPE191

Improving surgical informed consent in obstetric and gynecologic surgeries in a teaching hospital in Ethiopia: a before and after study; **Anteneh Asefa Mekonnen | Hawassa University, Ethiopia**

Background: Even though surgical informed consent has marked benefits, in many settings the information is not being provided appropriately. In Ethiopia, the attention given to surgical informed consent is minimal. This study is conducted to assess whether an intervention designed to improve surgical informed consent in obstetric and gynecologic surgeries is associated with receipt of surgical informed consent components.

Methods: Pre and post-intervention surveys were conducted in Hawassa University specialized Hospital among women who had obstetric or gynecologic surgeries. As the intervention, three days training on standard counseling for surgical procedures was offered to health professionals. A total of 457 women were surveyed (230 pre-intervention, 227 post-intervention). An adjusted Poisson regression analysis was used to identify the association between the intervention and the number of surgical **informed consent components received**.

Results: Majority of participants were 25-34 years of age both in the pre and post intervention groups ($p=0.66$). 45.7% of the pre-intervention and 51.5% of the post intervention survey participants underwent elective surgery ($p=0.21$). Additionally, 70.4% of pre-intervention survey participants received counseling immediately before surgery compared to 62.4% of post-intervention participants ($p<0.001$). 5.7% and 6.6% of pre intervention and post-intervention participants reported that surgical informed consent is just signing on a piece of paper, respectively ($p=0.66$). After controlling for effects of potential confounders, the surgical informed consent components reported by post intervention survey participants was 16% higher (adjusted coefficient=1.16 [1.06-1.28]). Having elective versus emergency surgery was not associated with the number of consent components received by participants of the two groups (adjusted coefficient=0.98 [0.88-1.09]).

Conclusions and recommendations: Training on a standard surgical informed consent delivery is associated with receipt of higher number of standard counseling components. However, there is a need to track whether a one-time intervention is associated with sustained improvement. A system wide research of what promotes surgical informed consent is required.

TUPE192

Factors influencing the implementation of the Nursing Process among Nurses in Hospitals of Ethiopia: A Mixed Methods Study.

Habtamu Abera Areri¹, Professor Janetta Roos¹ | ¹Addis Ababa University, Ethiopia

Background: Satisfactory patient care in any hospital depends primarily on the quality of the nursing process. The nursing process is a set of actions the nurse will implement to solve identified patient problems. The aims of this study were to investigate factors influencing the implementation of the nursing process in hospitals, and then developed guidelines for enhancing the nursing process implementation.

Methods: The study employed mixed methods research design. Using a quantitative approach employing self-administered questionnaires and qualitative approach, applying semi-structured interview guides to collect data. The study population for the quantitative method included randomly selected 422 registered nurses. For the qualitative research method in-depth interview with head nurses, nurse educators and matrons were carried out. The SPSS version 22.0 software was used for quantitative data analysis while manual thematic analysis was used for the qualitative data.

Result: The response rate was 94.8%. The overall nursing process implementation was found to be 69.0%. Respondents who were not reading about the nursing process were 55% less likely to implement the nursing process (AOR: 0.45; 95% CI: 0.28-0.73). The newly qualified respondents were nearly three times compared to those qualified longer (AOR: 2.65; 95% CI: 1.05-6.68). In many cases, the findings in quantitative study were not supported by the findings in qualitative. The reasons identified for not implementing the nursing process were lack of knowledge, skills and motivation, workload, and unwillingness of nurses.

Conclusion and recommendations: The nursing process implementation in this study area was found to be low. Factors affecting the implementation were lack of knowledge, skills, motivation, unfavorable attitude toward the nursing process and workload. The study recommends the need for coordinated efforts of all stakeholders for improving implementation of the nursing process and use of guidelines developed for enhancing implementation.

Key words: Nursing Process; care plan; Guidelines.

TUPE193

Barriers facing Persons with Disability accessing HIV/AIDS healthcare services: a case of Nyaweri VCT, Kisumu County; **Monicah Nyanumba | Plan International, Kenya**

Background: Globally, an estimated 650 million people have disability whereas in Kenya 1.3 million. PWDs generally have a low uptake of health care services. This study was conducted to establish the barriers facing PWDs accessing integrated HIV/AIDS health care services at Nyaweri VCT. The objectives are to determine the competence level of health care workers in providing integrated HIV/AIDS healthcare services to PWDs; to assess the appropriateness of sexual SRH products and commodities for use by PWDs; to establish IEC barriers to accessing integrated HIV/AIDS health care services by PWDs.

Methods: This was a cross sectional descriptive study with both qualitative and quantitative aspects. n=357 respondents were purposively sampled. Inclusion criteria any person who was blind, deaf, physically challenged and required assistance with daily activities. Assistive structured questionnaires and FGDs were conducted among 10 Health Care Workers and 347 PWDs.

Results: The predominant type of disability was deaf (59%), followed by physically challenged at 25% and blind at 16% respectively. There was significant relationship between non-trained VCT counselors at Nyaweri and PWDs access to sexual reproductive and other health products at 80% and 43% respectively; 59% of PWDs had ever been tested for HIV/AIDS. 47% of the PWDs had the capacity to read, comprehend IEC materials with HIV/AIDS and SRH information determining the usage of the same.

Conclusion: Findings revealed physical disability as the predominant type of disability. Revealed in this study is the inability to read, comprehend IEC materials with HIV/AIDS and SRH information among all PWDs.

Recommendations: This study recommends propagation of HIV/AIDS information to PWDs who are physically challenged and the blind through accessible medium; factoring context, content of IEC materials with HIV/AIDS, SRH information are accessed, utilized and reproduced. It also suggests continuous medical education, training on disabilities HIV/AIDS health service for health care workers.

TUPE194

The performance of Saliva Urea Nitrogen Reduction Ratio (SUNRR) as a measure of hemodialysis dose adequacy in End stage renal disease; **Mba Eya Karin Estelle | Faculty of Medicine and Biomedical Sciences, Cameroon**

Background: Saliva has proven to be a good surrogate of blood in the diagnosis and monitoring of diseases. Especially in nephrology, with recent studies showing that saliva urea nitrogen levels decrease after dialysis. No studies have shown its utility in evaluating dialysis dose adequacy.

Methods: We carried out an evaluative cross sectional study at the hemodialysis center of the Yaoundé General Hospital from January 2018 to April 2018. We included 70 consenting patients on maintenance hemodialysis. We collected unstimulated saliva and blood samples from selected participants before and after dialysis. Blood urea and serum creatinine assays were done in the laboratory and Saliva urea nitrogen (SUN) was gotten by immersing the SUN dipstick into saliva samples and a color change was gotten after 1minute and this color was compared to 06 standardized color fields indicating increasing levels of SUN concentrations. The reduction ratios of BUN and SUN were calculated.

Results: The median age was 50 years (range 17-74 years). Hypertension 31(44.3%) and chronic glomerulonephritis 14(20%) were the most frequent etiologies of CKD. The median (25th -75th percentile) reduction ratios for all biomarkers were: SUN=67.8 %(51.3-74), BUN= 69.5 %(60.7 -80.5) and SCr= 66.8 %(57.8-79.6), with all three biomarkers decreasing significantly at the end of dialysis ($p<0.001$). We observed a weak positive correlation between pre-dialysis SUN and BUN concentrations ($r=0.238$ $p=0.047$), and this correlation improved after dialysis ($r= 0.404$ $p= 0.001$). SUNRR showed a weak correlation with BUNRR ($r=0.298$, $p=0.012$), SUNRR had a fair agreement with BUNRR (kappa coefficient=0.305 $p=0.01$) with SUNRR underestimating BUNRR. Using BUNRR as gold standard, SUNRR had a good diagnostic performance in identifying patients with adequate hemodialysis (AUC of 0.705, $p=0.005$, sensitivity=69.6%, specificity=62.5%).

Conclusion: SUNRR has a good performance in identifying patients with adequate dialysis and can be used as a screening tool for adequate dialysis dose.

TUPE195

Women: The devils and advocates to contraceptive uptake; **Nelima Otipa¹, Hildah Essendi¹, Brian Mdawida¹ | ¹Population Services, Kenya**

Background: Various studies have shown that there are various influences in a woman's life that could influence her decision to take up a method such as peers, spouses, parents and health providers. Understanding the influencers to Modern Family Planning Methods (MFPM) uptake is important for advancing current efforts aimed at increasing uptake of MFPM. This research sought to use qualitative research to explore the main influencers and their role in the decision to take up a method.

Methods: The study was carried out in Kisumu, Migori, Nairobi, Kitui, and Kilifi counties which were selected based on their position on the PMA 2020 S-Curve. A cross sectional study design utilizing qualitative approaches was used. 14 Focus Group Discussions, 16 Key Influencer Interviews, and 7 In-Depth Interviews were conducted with non-users and discontinuers of MFPMs aged 18-49. Data was translated and coded using a thematic framework and analyzed using Nvivo.

Results: Fear of side-effects was a major reason for non-use and discontinuation; these fears were linked to specific methods. Respondents reported that female peers and health practitioners were their main sources of contraceptive information. Most women decide to take up a method based on advice from their peers and health providers and were satisfied with the factual information received from formal sources (health providers) although, informal interactions through female peers seemed to ultimately influence use or non-use, with nonusers being especially susceptible to being influenced.

Conclusion and Recommendations: Formal and informal sources of information have a different impact on decision making. What peers propagate influence the choice of methods. Women are thus ultimately, their own devils and advocates to contraceptive use. There is thus a need to give women method specific knowledge in interpersonal settings to curtail the information gaps. Further, the relationship dynamics among women should be exploited when designing interventions.

TUPE196

KQMH early enablers: The central role of leadership in implementation of Kenya Quality Model for Health- Case of Vihiga county referral hospital; Zacheus Muiruri | Amref Health Africa, Kenya

Background: According to WHO, Leadership is fundamental in implementation of Quality Improvement (QI) initiatives. In the absence of strong and sustained leadership across the health system, any new strategic interventions are unlikely to succeed and therefore strong leadership and support for quality needs to come from leaders of health institutions. This study seeks to demonstrate leadership as an early enabler to implementation of Kenya Quality Model of Health (KQMH) in Vihiga County Referral Hospital (VCRH).

Description: The KQMH external assessment conducted on April 2018 positioned VCRH as the leading health institution in quality initiatives among the 11 facilities in Vihiga County supported by Amref-GIZ consultancy project. Leadership played a central role in supporting quality improvement activities across all the hospital departments. The Quality Improvement Team (QIT) is steered by members of Health Management Team (HMT) and Work Improvement Teams (WIT) are led by head of department (HODs).

Lessons learnt: While 10 health facilities performed below 59% in initiating quality activities, VCRH performed remarkably well at 97%. The shared leadership model in QI at VCRH has made it possible for the inclusion of a budgeted QI work plan in the hospital annual operation plan. The hospital has institutionalized high impact QI projects namely Installation of a Closed-Circuit Television (CCTV), refurbishment of the newborn unit, development of the hospital strategic plan and formulation of drug formulary. The health facility is currently working on 42 QI projects, placing it among the most vibrant health facilities in implementation of KQMH in Vihiga County.

Conclusion: Leadership is central to the realization of KQMH implementation and health facility leadership should actively participate in improving the quality of healthcare.

TUPE197

Using Cascade Mentorship Model to improve management of Obstetric and Neonatal Emergencies among Health Workers in Siaya County; **Elizabeth Akinyi Omondi | Amref Health Africa, Kenya**

Issue: Despite Siaya County and Partners' efforts to increase health workforce care capacity on Emergency Obstetric and Newborn Care (EmONC) through trainings, challenges remain in bridging the gap between knowledge and quality clinical practice. In most cases, supervision activities have focused on data collection, auditing and report completion rather than catalyzing learning and supporting system for quality improvement. To address this gap, cascaded mentorship approach is being implemented by Amref through the GAC funded CAIA-MNCM project to empower the health workers to provide quality services and handle obstetric and neonatal emergencies.

Description: Project baseline showed that Siaya County had an unmet need for BEmONC as health facilities fell below the WHO standards. To address the gap the project through the county government conducted initial training of 81 healthcare workers on EmONC. The healthcare workers were further supported to perform Basic EmONC Services using the cascade mentorship approach. Health facilities offering quality BEmONC services is a key intervention for averting maternal and neonatal mortalities. From 2017 to 2018, 81 health care workers in 18 facilities have received mentorship. The model assessed key focus areas which include active management of third stage of labour, newborn resuscitation, Post- Partum Hemorrhage and preeclampsia management. The data was obtained from the maternity registers and project health, partograph and facility assessments.

Lessons learnt: Cascaded mentorship program has improved management of obstetric and neonatal emergencies through retention of skills and knowledge at an average 80%; 18 Facilities have updated emergency trays, partograph quality completion at 88% and Obstetric referrals to major hospitals have reduced from 76% to 33%.

Next steps: Moving forward the model will be documented and shared as a best practice. The county health management team will be strengthened to adopt and support the teams in other departments for improved service delivery.

TUPE198

Women's perception of quality of free maternity services: a case of Nyeri County, Kenya; **Cosmas Mwamburi Mwashumbe | Improving Public Health Management for Action (IMPACT), Kenya**

Background: In the context of maternity service, the mother's assessment of quality is central because emotional, cultural and respectful supports are vital during labour and the delivery process.

According to Kenya Demographic Health Survey 2014 report, only 61% of women in Kenya give birth in health facilities, well below the 90% 2015 target. However, with introduction of free maternity services in 2013, the maternal mortality rate in Nyeri County has improved from 99.9 per 100,000 live births to 92 per 100,000 live births in 2016.

Methods: In July 2018, we conducted an evaluation of the free maternity services (FMS) offered in five health facilities in Nyeri County: County Referral Hospital, Mount Kenya Hospital, Consolata Mathari Mission Hospital, Wamagana Health Center and Naromoru Health Center. We interviewed a total of 124 post-partum mothers (who had delivered at one of the five facilities), asking their opinion on quality of care. Perception of quality was measured by a 20-item scale with three sub-scales: health facility, health care delivery, and interpersonal aspects. Perceived quality score were analysed by use of descriptive statistics.

Results: The total rating of the FMS services by the clients who had benefitted was 0.78 out of a possible score of 1, with the lowest rating of 0.72 for health facility aspect and 0.76 for health care delivery. The best service rated were interpersonal skills of the health staff (0.86). The least satisfaction levels were found in the availability of amenities (0.83) and availability of equipment (0.84).

Conclusions: As much as assessment of quality of care by clients is subjective, it can still provide useful input to help the provider understand and establish acceptable standards of services. These findings should contribute to the improvement of the FMS program.

Keywords: Quality of care, Maternity services, Perceptions

TUPE199

Influence of perceived quality of care among postnatal mothers on utilization of free maternal health care policy -a case study of Nakuru County Referral Hospital; **Winnie Mutai | Egerton University, Kenya**

Background: The aim of this study was to determine perceived quality of free maternity care received among post-natal mothers and its influence in utilization of the policy. The study focused on perception of quality measured in four areas: Physical and human resources; Equity Dignity and Respect experience, Cognition level, and Emotional and Social support, and how these four areas influences their perception. It is necessary to evaluate the quality of maternal health care services from the mothers' perspective because patient satisfaction is considered an important measure of the quality of health care services and a key determinant of patients' behavioural intention.

Methods: This was a mixed qualitative and quantitative study where a non-experimental descriptive cross sectional approach was used to collect data in the postnatal wards/firms. Stratified random sampling based on the ward/firm and mode of delivery was used to select postnatal mothers to participate in the study. Managers implementing the free maternity policy were key informants. A structured administered questionnaire and a key informant interview schedule was used. Data collected was analyzed using Statistical Products and Service Solutions (SPSS) program version 21. Chi square and t tests was used to determine associations between the mothers' social demographic status categories; age; parity; planned pregnancy; quality of care received and the level of maternal satisfaction.

Results: Majority of respondents were Female. 70% of the respondents indicated perceived low quality of care that could explain High attendance during prenatal care 98% decreasing towards 40% PNC. Socio demographic status largely such as awareness level among mothers on importance of Post-natal care was low.

Conclusion: The low utilization of the free maternal Health care services by post-natal mothers due to perceived poor quality of care.

TUPE200

The reasons for homebirths amongst post-partum women attending the well-baby clinic at a hospital in Manzini, Swaziland
Zethu Mamba | Sefako Makgatho Health Sciences University, South Africa

Background: Homebirths are strongly discouraged because of detrimental consequences including maternal as well as perinatal morbidities and mortalities resulting from childbirth complications. Childbirth that takes birth in the presence of a skilled birth attendant (SBA) often in health care facilities where sufficient equipment and resources are found safe. The study objective was to explore and describe the reasons for homebirths among post-partum women who gave birth at home but visit the well-baby clinic at a hospital in Manzini.

Methods: A qualitative design using convenient sampling was employed. Thirteen postpartum women who gave birth at home brought their new-born babies to the well-baby clinic to receive the first immunization comprised the study participants. Individual in-depth interviews were conducted. Data analysis followed thematic analysis. Personal and systemic factors under which sub-themes were identified to represent the reasons for homebirth among the study population. Enhanced health education during antenatal care regarding signs of labour, reduced maternity fee and availability of ambulance services require improvement in the Manzini region. The study is limited to participants who attended one well-baby clinic of one regional hospital in Manzini region. Only a qualitative study was done and the reasons for homebirths were not quantified in a quantitative study.

Results: Avoidable intrapartum maternal and perinatal mortalities happened in the presence of those perceived to be skilled in health care facilities. On the other hand, health care facilities are sometimes unwelcoming resulting in some women resorting to the home comfort for childbirth rather than over-crowded hospital. In eSwatini, 97% of pregnant women attend antenatal care but only 76% give birth in health care facilities despite the government discouraging homebirths.

Conclusion: Homebirths remain a challenge in the absence of skilled birth attendant because the traditional birth attendant lack skills to address obstetric emergencies.

TUPE201

Accelerating community health impact using simple model in Kenya; **Sylvain Romieu¹, Clare Nyabonyi¹, Nathan Tumuhamy¹, Josphine Muthoni¹ | ¹Living Goods, Kenya**

Background: Living Goods (LG) provides quality health care through community health workers (CHWs). CHWs provide health education to their communities, register pregnancies, and refer and treat sick individuals. Treatments, as well as other impact products, are sold at a small margin by CHWs to the communities. In late 2017, LG tested whether stopping the sale of impact products would affect the ability of CHWs to deliver the same health intervention. This new model, with less time dedicated to sales, marketing, and stock management was dubbed the simple model.

Method: The experiment started in Funyula branch, Busia County with 55 trained CHWs. The product portfolio was reduced from 39 products to 16 essential and non-essential medicines or health-related products. CHWs benefited from increased health incentives to make up for their lost income. The performance of the LG CHWs in Funyula branch was then compared to that of LG CHWs in other branches in Busia County.

Results: A CHW performance assessment in their first 8 months showed that the Funyula CHWs performed at a similar level to that of CHWs in other branches in Busia County. Funyula CHWs assessed the same number of sick children, registered fewer pregnancies, but conducted more follow-up visits in 48 hours than elsewhere. Overall, CHWs in Funyula performed well.

Conclusion and recommendations: The simple model is successful both from a health intervention and from a managerial perspective. High-quality community health care continues to work with less complexity and at a lower cost. This success needs to be further tested to identify whether the intervention can be simplified further and if it can succeed at scale. On October 1st, LG started a Simple model v2 experiment and a Super Simple Model in 2019.

TUPE202

The impact of caesarean section on breastfeeding indicators in sub-Saharan Africa: a meta-analysis of Demographic and Health Surveys; **Engida Yisma¹, Ben Mol², John Lynch¹, Lisa Smithers¹ | ¹The University of Adelaide, Australia, ²Monash University, Australia**

Background: The association between caesarean section and breastfeeding is poorly understood in sub-Saharan Africa. We aimed to examine the impact of caesarean section on breastfeeding indicators—early initiation of breastfeeding, exclusive breastfeeding, and ever breastfeeding—in sub-Saharan Africa.

Methods: We used the most recent data from 32 Demographic and Health Surveys (DHS) completed in sub-Saharan Africa. We analysed the data to examine the impact of caesarean section on breastfeeding indicators using log-Poisson regression models for each country adjusted for potential confounders. For each breastfeeding indicator, the within-country adjusted prevalence ratios were pooled in random effects meta-analysis.

Results: The within-country adjusted analyses showed, compared with vaginal birth, caesarean section was associated with adjusted prevalence ratios (aPR) for early initiation of breastfeeding that ranged from 0.23 (95%CI, 0.16, 0.31) in Tanzania to 0.81 (95%CI, 0.64, 1.02) in Cameroon. Similarly, the aPR for exclusive breastfeeding ranged from 0.57 (95%CI; 0.33, 0.99) in Senegal to 1.60 (95%CI; 1.07, 2.39) in Mali, while the aPR for ever breastfeeding ranged from 0.90 (95%CI, 0.82, 0.99) in Liberia to 1.02 (95%CI, 0.98, 1.06) in Guinea. Meta-analysis combining the adjusted effects from 32 countries showed that caesarean section was associated with a 47% lower prevalence of early initiation of breastfeeding (pooled PR, 0.53 (95%CI, 0.48, 0.58)), but not with exclusive breastfeeding (pooled PR, 0.93 (95%CI; 0.86, 0.99)) nor ever breastfeeding (pooled PR, 0.98 (95%CI; 0.98, 0.99)).

Conclusions: Caesarean section had a negative influence on early initiation of breastfeeding, but showed little difference in exclusive- and ever-breastfeeding between infants born by caesarean versus vaginal birth in sub-Saharan Africa.

TUPE203

Interpreting the changing association between caesarean birth and neonatal death: a case study from Ethiopia; **Engida Yisma¹, Ben Mol², John Lynch¹, Lisa Smithers¹ | ¹The University of Adelaide, Australia, ²Monash University, Australia**

Background: The aimed to interpret the changing association between caesarean birth and neonatal death within the context of Ethiopia from 2000 to 2016. Design: Secondary analysis of Ethiopian Demographic and Health Surveys (DHS).

Methods: All administrative regions of Ethiopia with surveys conducted in 2000, 2005, 2011, and 2016. the participants were women aged 15-49 years with a live birth during the five years preceding the survey. We analysed the association between caesarean birth and neonatal death using log-Poisson regression models for each survey adjusted for potential confounders. We then applied the 'Three Delays Model' to provide an interpretation of the changing association between caesarean birth and neonatal death in Ethiopia.

Results: The adjusted prevalence ratios (aPR) for neonatal death among neonates born via caesarean section versus vaginal birth increased over time, from 0.95 (95% CI, 0.29, 3.19) in 2000 to 2.81 (95% CI, 1.11, 7.13) in 2016. The association between caesarean birth and neonatal death was stronger among rural women (aPR (95% CI) 3.43 (1.22, 9.67)) and among women from the lowest quintile of household wealth (aPR (95% CI) 7.01 (0.92, 53.36) in 2016. However, the aggregate-level analysis revealed that an increase in caesarean section rate is correlated with a decrease in the proportion of neonatal deaths.

Conclusions: The naïve interpretation of the changing association between caesarean birth and neonatal death from 2000 to 2016 is that caesarean section is increasingly associated with neonatal death. However, the changing association reflects improvements in health service coverage and a shift in the characteristics of Ethiopian women undergoing caesarean section after complicated labour or severe foetal compromise.

TUPE204

Putting young people at the centre in policy for sustainable development: the case of Nairobi County; **Georgina Obonyo¹, Faith Kiruthi² | ¹Youth in Action, Kenya**

Issue: Today the world holds largest youth population in history between the ages of 10-24. 45% of the general population in Kenya are youth below the age of 15 while 19% being youth between ages 15 to 24.30% of Nairobi inhabitants are below age 15. Despite commitments having been made globally years ago to meaningfully engage youth in decision making it's still not a reality. Calls to invest in youth to improve health outcomes has been increasing with governments showing no good will

Description: Y-ACT mentors, supports and increases capacity of youth to influence policy and resource priorities for youth Sexual Reproductive Health. Nairobi advocates conducted consultations with youth on why there is less engagement of youth in policy. Youth cited mistrust in decision making systems, insufficient information on how to be involved, inadequate capacity, lack of resources. To address the challenges, Y-ACT trained advocates who developed advocacy strategy with the goal of lobbying county to put in place an Adolescent Youth sexual reproductive health framework. They presented their case to County Technical working group who set up a task force with youth to develop the Framework

Lessons Learnt: Advocates who received training were comfortable to engage county as they understood the policy landscape. The county set up a Task force in which representation of youth was 50%. In the framework, youth were positioned in the highest decision making structure for governance and coordination. There was an official recognition of Youth Advisory Council by county for the first time. Engagement of youth creates legitimacy of County programmes.

Next Steps: We are developing Meaningful youth engagement score card to hold decision makers accountable

TUPE205

Does quality of care in family planning services vary by public-private sector in India; **Abhishek Kumar¹, Mousumi Gogoi¹ | ¹Population Council, India**

Background: Recent global initiative on family planning (FP) i.e. FP2020, not only targets to provide FP services to additional 120 women by 2020, but also emphasize to achieve this target with quality – ensuring that clients should receive information about all FP methods available, there should be no coercion and restriction from the service providers. Being a signatory of the FP2020, India is accrediting more private sector facilities to increase provider base for its success. Encouraging private sector to provide FP services is under impression of the challenges of physical distance, long waiting times, unavailability of doctors and poor quality of care (QoC) in public health facilities. However little, is known about difference in QoC in FP services between public and private sector.

Methodology: Using fourth round of the National Family Health Survey of India, conducted in 2015-16, this paper examined the differences in QoC in FP services across public and private sector. Currently married women aged 15-49 years were unit of the analysis. QoC is separately measured for permanent methods (female/male sterilization) and modern reversible method (IUCD/condom/pills/injectables) based on the components of method information index (MII). Propensity score matching (PSM) analysis is used to understand the differences in QoC in FP services across public and private sector after matching clients with similar background characteristics across both the sector. Overall MII is low for both, modern reversible methods (26%) and female sterilization (30%).

Result: Result of PSM analysis indicates that, MII for modern reversible methods is significantly low when obtained from private health facilities (25%) than public health facilities (37%). However, for female sterilization, QoC is similar across public and private facilities (30% in each).

Conclusion: Given that India is promoting private health sectors to meet its family planning goal, maintain quality in adhering FP services is important for reproductive rights of women.

TUPE206

Infection prevention, control and biosafety as a game changer at Homa-bay County Referral Hospital; **Judith Niver Oyuga | Ministry of Health, Kenya**

Background: Public Health facilities are the most widely accessed health care facilities by patients, this is mainly due to cost associated. IPC and Biosafety is mostly compromised due to the huge numbers that access these facilities. IPC and Biosafety forms a basis of quality services rendered to clients as this will lead to reduced infections in hospitals. Ugly sites of waste at these facilities has resulted into reduced number of patients at facilities which has seen reduction of revenue collections. This study's aim was to improve the safety and infection prevention at Homabay County referral hospital, cultivate culture of doing the right things when no one is watching and to improve knowledge of hospital staff on IPC and Biosafety.

Methods: Baseline data was collected on waste management at the hospital, use of PPE and hand washing among the hospital staff by observing staff while doing their daily activities, administering questionnaires regarding infection control issues, conducting assessment using Biosafety-Biosecurity checklist. CME's on Biosafety and infection control were done to create more awareness. Exit interviews after interventions.

Results: At baseline staff were not so keen on waste segregation and how they were disposed, heaps of wastes noted, hand washing not routinely done after handling patients, health care workers wore protective coats outside and eating places. Exit assessment showed improved waste segregation and responsible use of PPE, heaps of waste reduced and general cleanliness, use of hand sanitizers and improved scores in the checklists.

Conclusions: Infection prevention Control and Biosafety is a culture that can be cultivated among health care workers through awareness by use of CME's and advocacy. It is not the knowledge that is lacking among health care workers but attitude towards safety to oneself and the client.

TUPE207

Iron and Folic Acid Supplementation Adherence among Pregnant Women Attending Antenatal Care in Northern Ethiopia: Institution based cross sectional study; **Asmamaw Demis¹, Biftu Geda², Tadesse Alemayehu² | ¹Woldia University, Ethiopia**
²Haramaya University, Ethiopia

Background: Pregnant mothers are at high risk of iron and folic acid deficiency due to their increased requirements. Iron and folic acid supplementation is the most widely employed strategy to alleviate iron deficiency anemia and neural tube defects. Adherence to iron and folic acid is crucial for the prevention of birth defects and anemia during pregnancy. In Ethiopia, despite the efforts made to reduce iron deficiency anemia during pregnancy, information about adherence to iron and folic acid supplementation and its associated factors are lacking. The objective of this study is to assess iron folic acid supplementation adherence and associated factors among pregnant women attending Antenatal care in Woldia town public health facilities.

Methods: Institution based quantitative cross sectional study supplemented by phenomenological qualitative study design was employed, on 422 pregnant women in Northern Ethiopia. Systematic random sampling and purposive sampling methods were used to select study participants for the quantitative and qualitative studies.

Results: Adherence status of pregnant women attending ANC was found to be 43.1% (95% CI, 38.6%-48.1%). Obtained counseling about IFAS (AOR=2.93, 95%CI: 1.43-6.03), having four or more antenatal care visit (AOR=2.94, 95%CI: 1.39-6.21), early registration time (AOR=3.04, 95%CI: 1.85-5.01), good knowledge of anemia (AOR=2.25, 95%CI: 1.32-3.82) and good knowledge of IFAS (AOR=2.47, 95%CI: 1.47-4.16) were statistically and positively associated with pregnant mothers' adherence to iron and folic acid supplementation.

Conclusions: This study revealed that the adherence status to iron and folic acid supplementation among pregnant women attending antenatal care was low. Antenatal care follow up, knowledge of anemia, knowledge of Iron and folic acid supplementation, antenatal care registration time and obtained counseling were factors associated with pregnant women's adherence. Therefore, much work is needed to improve adherence status by providing adequate counseling and health education.

TUPE208

The roles of HMOs in implementation of social health insurance scheme in Enugu, Southeast Nigeria: A mixed-method investigation;
Eric Obikeze | University of Nigeria, Nigeria

Background; Countries are pursuing health financing options that will enable them achieve universal health coverage (UHC). One of the methods of doing this is through health insurance. Nigeria has National Health Insurance Scheme (NHIS). This study is a mixed method investigation of the roles of Health Maintenance Organizations (HMOs) in implementation of social health insurance scheme in Enugu, Southeast Nigeria.

Methods; A partially mixed sequential dominant status design was employed in the study. That is, the quantitative phase (surveys) preceded the qualitative phase (interviews). The statistical data in phase one provided empirical basis for understanding the roles of HMOs followed by thematic analysis in the qualitative phase. Qualitative data were collected through review of literature and in-depth interviews to examine the role of HMOs from stakeholders. Quantitative data were collected through interviewer administered questionnaire to Federal government employees that are registered with the National Health Insurance Scheme (NHIS). A total sample size of 613 was used for the quantitative component of the study. A total of 28 in-depth interviews were conducted in the qualitative component.

Results: One-third (31.5%) of respondents said that roles of HMOs were very important, while 23% said that their roles were not important. More than half (57.70%) ranked HMOs very low, while 24.10% ranked them highest. Logistic regression indicates level of satisfaction with HMOs that is statistically significant (Chi² 163.86, p-value 0.000). The qualitative data analysis showed that most of the respondents were not satisfied with the roles of HMOs.

Conclusion: The study showed that the roles of the HMOs were not satisfactorily performed within the confines of the scheme. Respondents generally think that HMOs are not meeting the expectations of the scheme.

TUPE209

Perceptions and barriers to the use of modern contraceptive methods and HIV protection of 16–20 young people in rural South Kivu; **Pacifique Mwene-Batu | Université Catholique de Bukavu, Congo**

Background: For several years, the Congolese Government has been promoting an approach encouraging Abstinence, Good fidelity and the use of Condom as the preventive method against HIV. However, data on sexual and reproductive health remains a serious concern despite all preventive methods in place. The S3 Youth Program has implemented a Comprehensive Sex Education course in some schools in South Kivu since 2016 to promote sexual and reproductive health knowledge. Our study aimed to understand young people's perceptions of modern contraceptive methods and HIV prevention, as well as the different barriers and challenges they face in using them despite this course.

Methods: A qualitative survey with an interview guide was carried out among the sixteen young people aged between 16–20 in four schools in Miti-Murhesa and Katana in January 2018. Open coding on data previously transcribed in was used for the analysis following the thematic approach. The choice of subjects was made in a reasoned manner with regard to gender and institution.

Results: Most of the young people knew at least about one contraceptive method after explanation. There was a contrast between good knowledge of the mode of transmission and prevention of HIV / AIDS and condom use, which remains very low. Educational attainment and socio-economic status would influence opinions about sexual and reproductive health. Finally, religious leaders and uneducated parents would be the biggest barrier for young people, while teachers were more supportive of using modern contractive methods.

Conclusion: Young people remain at risk for HIV, STIs and early pregnancies. Their perception of sexual health remains strongly influenced by personal considerations as well as the community (religious leaders, uneducated parents, etc.). The latter remains hostile to the debate with young people on sexual health. Interventions to promote condom use and contraceptive methods among young people should target these different actors in the community.

TUPE210

Perceived Barriers to access available HIV and STIs services among Men Who Have Sex with Men (MSM) in Tanga Region Northern, Tanzania; **Hamimu Omary Kigumi | Nelson Mandela Institute of Technology, Tanzania**

Background: Whilst studies have shown a high prevalence of HIV and STIs among MSM globally and in Africa. Other studies shown that the MSM faced barriers during the accessing the HIV and STIs services from the health facilities is among the factor that increase the prevalence. The study was aimed to determine the proportion of MSM who accessed health care and disclose their sexual orientations to health care workers (HCW) and anticipated barriers if MSM disclose their sexual orientations. Also intended to find social factors that MSM perceived from the community and HCWs which result to them denying accessing to SHRS and STIs services from health care facilities.

Methods: A cross sectional study that involves with mixed method methods was conducted from April to June 2015 in four districts of Tanga. 266 MSM were enrolled in the study using RDS method. Quantitative data was collected using structured interview and entered in SPSS 23.0 for analysis. Qualitative data was collected using in-depth interview, analyzed and interpreted manually.

Results: The mean age of the participants was 27.2 (SD 6.7) years, 48% were married or cohabited. The majority 68.8% of MSM have not accessed HIV and STIs services till they were sick. 13.4% did not go to the health facilities for treatments even they were sick. 67.8 % had ever disclosed their sexual orientations to either to HCWs or close person. This was due to lack of confidentiality, fear of stigma and discrimination, shame and mistreatment and fear of the healthcare worker's reaction after disclosed their status.

Conclusion: MSM need to be empowered to overcome their perceived fears towards HCWs. Efforts should be put into breaking the cycle of negative information and perceptions MSM have about healthcare workers and how they deal with same sex practices' health related problems.

TUPE211

Timing of Prophylactic Perioperative Antibiotics and Surgical Wound Dressings: Attitudes, Knowledge and Practices of Orthopaedic Surgeons at University Teaching Hospitals, Lusaka; **Bright Moyo Jnr¹, James Munthali², Penelope Machona² | ¹Zambia Orthopaedic & Trauma Association, Zambia, ²University of Zambia, Zambia**

Background: Over 500 elective Orthopaedic surgeries are conducted at University Teaching Hospitals (UTH) yearly. This naturally comes with challenges that pose a threat to quality of service delivery such as Surgical Site Infections (SSI). The study was assessing knowledge, attitudes and adherence of Surgeons to proven clinical practices known to lower SSI rates, particularly role of Prophylactic Antibiotics and Surgical Wound Dressings in perioperative care.

Methods: This study was a Cross-sectional Clinical Audit of 35 caregivers who were surveyed mainly by administering a physical questionnaire from 13th September to 4th October, 2018 at UTH, Lusaka. 67% of the total Orthopaedic staff was recruited by convenient sampling, with Microsoft Excel used to analyze data.

Results: Prophylactic antibiotics are administered beyond 24hours, against evidence and best practices, by the account of more than 70% of Surgeons surveyed. Furthermore, there is no Policy to guide microbial sensitivity and resistance patterns at UTH. Concerning Surgical wound dressings, only 12% of participants reported using studies as their basis of decisions on duration of the dressings post-operatively with the rest using either low level evidence (42%) or non at all (46%).

Conclusion: Orthopaedic Surgeons at UTH effectively treat asymptomatic patients who have undergone clean, closed and elective operations, empirically for infection rather than prevention by prophylaxis. There is either no basis for this practice or very low level evidence. It was further established that there is no standardization of practice where duration of surgical wound dressings is concerned post-surgery with late exposure a common practice that is however not backed by evidence. These findings highlight the dire need of enhancing monitoring models for quality assurance of healthcare services at UTH, particularly the need to escalate pharmacovigilance in order to curb antimicrobial resistance.

TUPE212

Perception of Mothers and Providers on the Quality of Care in Maternal and Newborn Service in Addis Ababa; **Samrawit Sileshi Awoke | Ethiopia**

Background: One of the most important ways to address factors associated with both maternal and neonatal mortality is assuring emergency obstetric and neonatal care with maximum quality of care at the time of labor, delivery and immediately after birth. The objective was to assess mothers' and provider's perception on the quality of maternal and newborn care and associated factors during the time of delivery and immediately after birth in Addis Ababa.

Methods: Institution based cross-sectional study supplemented by qualitative design was used. Multistage stratified sampling technique and Donobedian quality model was used as a measurement. Analyses were done by using STATA 12 software. Bivariate and multivariate logistic regression were applied at 95% CI and p value <0.05. For the qualitative study focused group discussion was chosen, the participants were health providers who work in maternal and newborn care unit. Four FGDs were conducted. Thematic analysis was performed by using open code software.

Results: A total of 576 delivering mothers were included in this study. 28.4% of mothers get delivery service in the private and 71.52% in the government hospitals. Only 8.33% of the mothers had complication during labour and childbirth and 2.78% of the newborns' outcomes were stillbirth and early neonatal death. 51.22% of the mothers rate the overall quality of care as above the mean (83.3 with SD±10.4). Health provider's respect, comfortable delivery room, competency of health providers, adequacy of health providers, availability of drugs and lab investigations were a major predictor for mother's perceived higher quality.

Conclusion: This study shows that the overall mothers perceived quality of care at labor, delivery and immediately after delivery was satisfactory but still needs improvement. The three components of quality of care have an effect on perceived quality of care.

TUPE213

Overseas Remittances support Universal Health Coverage and Quality of Healthcare; **Mirjam van Reizen, Leiden University, The Netherlands**

Background: Overseas remittances are an important resource for financing of healthcare services in low-income communities. Financial support by extended family affect interactions at healthcare facilities. They are crucial for the attainment of Sustainable Development Goal 3. Literature review suggests that remittance-flows have positive impact on the quality of health care; clients are part of social networks and remitters are active influencers in such networks. Remitters engage in the situation the patient is facing.

Methods: We test a remitter-inclusive approach to information-sharing in healthcare. We investigate how this sharing increases the decisions on healthcare services. We hypothesize that sharing of information contributes to a more positive Western-oriented health orientation, also in Africa.

Results: Healthcare is rarely an individual affair. Langen described a paradigm clash of Western healthcare with traditional African approaches. Hence, bridging of health care paradigms is important. Remitters, living overseas, are immersed in the context of Western based health care. They refer to their understanding, experience and knowledge of such care. Remitters that contribute directly to the patient's challenge are influential. They are trusted sources of information. Their knowledge augments local information sources. In the process of sending remittances for health, relatives in the diaspora discuss health-issues within social groupings. Experiences, expectations, and health-related information are exchanged. These exchanges shift attributed values and communal attitudes towards the health-services and the local knowledge base of the health-challenges at hand.

Conclusions and Recommendations: Involvement of overseas remitters in information exchange on options of patients can improve the quality of the decision-making and their remittances can contribute to expand health-coverage and quality of healthcare.

Keywords: Training, HR4H, eHealth

TUPE214

Risk factors for acceptance of mistreatment during childbirth among Ethiopian midwifery students; **Rena Bakker¹, Ephrem Sheferaw¹, Tegbar Yigzaw², Jelle Stekelenburg¹, Marlou de Kroon¹** | ¹University of Groningen, Ethiopia, ²Jhpiego, Ethiopia

Background: Only 28% of births in Ethiopia were attended by a skilled health worker in 2016, while maternal and neonatal mortality rates remain high. Care providers' mistreatment of women during childbirth can partially account for these findings, due to creating hesitancy in pregnant women when approaching health facilities for delivery care.

Objective: This study was carried out among Ethiopian midwifery students in order to appraise risk factors for mistreatment during childbirth. Insights may be of particular interest to the Ethiopian government that aims to promote respectful maternity care with efforts that encompass enhancing the curriculum of health science programs and offering training to health professionals with its Health Sector Transformation Plan.

Method: This study employed a cross-sectional design. We collected data among 389 Ethiopian final year midwifery students from six education institutions. Students were invited to complete a paper-and-pen questionnaire, which included questions on background characteristics, prior observation of mistreatment during education, self-esteem (using the Rosenberg Self Esteem scale), stress (using the Perceived Stress Scale) and acceptance of mistreatment (using the MISAC Scale, work in progress). A multivariable linear regression analysis was applied to answer the research question.

Results: Age ($p=.001$), stress ($p=.039$) and previous observation of mistreatment during education ($p<.001$) were significant predictors of acceptance of mistreatment, with younger students, more stressed students and students that observed more mistreatment during their education yielding higher acceptance of mistreatment scores. Gender ($p=.169$) was not a significant predictor of acceptance of mistreatment.

Conclusion: Data collection among students allowed us to identify predictors of acceptance of mistreatment before employment. Findings can be used to develop educational interventions that increase professionalism and promote respectful maternity care among Ethiopian midwives.

TUPE215

Sexual and reproductive health and rights (SRHR) awareness in a peer education model; based on the RESPEKT Project; **Marie-Claire Wangari¹, Bidian Okoth¹ | 'RESPEKT, Kenya**

Issues: In schools across Kenya, young boys and girls are unable to access sexual and reproductive health and rights services; despite of their right to do so as entrenched in the Kenyan constitution. It is because of this, that the overall aim of RESPEKT is to rethink and ensure quality education on SRHR amongst teenagers in Kenya. This has been done by creating safe spaces during games/clubs time where the teenagers can discuss SRHR issues amongst their peers.

Description: RESPEKT is a youth lead initiative that was founded in 2015 as a collaboration between university students based in Kenya and Denmark. Currently there are 120 volunteers who conduct the high school workshops and coordinate the programs activities e.g. data collection. The program also provides information on the availability of local health care services and has developed a curriculum that is used during the workshops.

Lessons learnt: About 3,000 teenagers from eight counties in Kenya have been trained. 100 youth leaders from Kilifi and Eldoret have also been trained on Gender Based Violence response and prevention. During these interactions, the program has seen that one of the ways of reducing the stigma on SRHR is by having focused peer-to-peer workshops that are not only youth friendly but also relevant to the demographic setting; as the awareness levels differ between rural and urban settings.

Next steps

RESPEKT aims to reach 10,000 teenagers by the year 2020. To ensure continuous dissemination of knowledge throughout the academic year, the program aims to train peer counsellors on how to conduct to high school workshops. Furthermore, there will be a knowledge exchange workshop in early 2019 with SHEBA, based in Ethiopia so as to learn how to improve our program.

TUPE216

Determine the eligibility of households to a demand-side health insurance subsidy intended for low-income households. A quantitative case study of households in Laikipia County, Kenya

Phyllis Muthoni Maina | County Government of Laikipia, Kenya

Background: Health insurance coverage in Kenya remains low at 19.59%, with only 3% in the informal sector. Kenya has a disproportionately high (87%) informal sector population. Amref Kenya in collaboration with National Health Insurance Fund (NHIF) have introduced a Community Based Health Management Information System (CBHMIS) mobile application Mjali that enables Community health volunteers to register households into NHIF.

Methods: Collected demographic and socioeconomic data, knowledge, attitudes and practices; and enable the community to pay the Ksh 6000/ \$5 monthly insurance premium by mobile banking at as little as \$0.20 per day so as to expand coverage among the informal sector using mobile M-Jali application. Multiple correspondence analysis (MCA) was performed on the factor variables that measured physical, financial and natural assets of the 90052 households (Respondents).

Results: The first dimension explains 39.1% of inertia. The variables that are associated with poverty (No cows, no chicken, no goats, no land) and variables that portray non poverty (ownership of land, livestock, indoor toilet, etc.) imply that proxy indicators for ability to pay for health insurance can be extracted from the first dimension and were passed through the K-means algorithm to be recorded into a binary variable; 0 for non-poor and 1 for poor and 20% of the households were poor. The poor households were further stratified into 4 quadrants; poor 24.3%, slightly poor 37.9%, poor 23.2% and poorest 14.7%. The extreme poorest deserve to be supported by a whole year premium, the multipliers have been applied on this basis to arrive at the level of annual support that the other strata of poor persons deserve. The least poor are to be supported with Ksh 2,959.65, the slightly poor with Ksh 3176.3501, the poor with KSh 3195.3749 while the poorest with Ksh 6,000.

Conclusion: A county subsidy program at Ksh. 63,870,709 annually will increase health insurance coverage among the poor.

TUPE217

Improving accountability for increased efficiency and access to resources: a case study from Migori County on referral services;
Elizabeth Mgamb | Ministry of Health, Kenya

Issue: Investing in Primary Health Care is key to the achievement of UHC. This however has to be accompanied by an effective referral system to ensure equitable access to secondary and tertiary health care by all members of the community. Migori County health department developed a referral protocol but its implementation has been hampered by several challenges. The major and most recurring challenge was inconsistent availability of fuel.

Description: The County Health department identified the main gaps leading to inconsistent availability of fuel despite availing \$15,000 for fuel purchase per month. Referrals data showed that there were approximately 242 referrals per month hence one referral costed the County

Department of Health \$83. The county improved accountability by appointing a specific person to manage the referrals fuel. Before refueling any ambulance, she had to check on the number of referrals done and distances covered. If this was found to be commensurate with the fuel used, refueling was to be done. Fuel statements were also to be obtained from the petrol station twice a week in duplicates; one copy for the Director's file and one for the chief officer of health.

Lessons learnt: Implementation of the above interventions led to: reduction in monthly fuel consumption from \$15,000 to \$5000, consistent availability of fuel for the past six months and reduced ambulance waiting times. In addition, the chief officer of health promptly provided funds for referrals fuel. Accountability leads to increased efficiencies and access to the available resources.

Next steps Currently working on improving accountability for essential medicines and supplies.

Key words: Referrals, accountability, efficiency

TUPE218

Effect of hypertension and inequality on quality of life satisfaction among the aged in Ghana: Modified Poisson with Coarsened Exact Matching; **John Tetteh¹, Martin Amogre Ayanore¹ | ¹University of Health and Allied Sciences, Ghana**

Background: Research into well-being, focusing on quality of life has been identified as comorbidity of hypertension. There is an evidence which suggests that, the absence of hypertension is crucial for the maintenance of life among the aged in order to improve their quality of life. In this study, we examined risk factors associated with hypertension and its effect on quality of life among the aged in Ghana.

Method: WHO Study on Global AGEing and Adult Health in Ghana dataset were used. Elderly 50 years and above and eight standard quality of life assessment tool were extracted. Twelve predictive models with Coarsened Exact Matching involving Poisson, Logistics, Probit, Ordered logistic regression and Blinder-Oaxaca decomposition analysis technique were performed using Stata 14.

Results: There is a statistically significant association of quality of life satisfaction with self-reported hypertension. The focus model predicts that, self-reported hypertension adults were 92% less likely to be satisfied with their life as compared to non-self-reported hypertension adults [IRR (95%CI) =0.92 (0.85-0.99)]. Median classification predicts that, adults with hypertension were 86% less likely to be satisfied with their life and is statistically significant [IRR(95%CI)=0.86(0.75-0.99)] while model 3 also predicts that, adults with hypertension were 67% less likely to be satisfied with their life and is statistically significant [AOR(95%CI)=0.67(0.46-0.97)] as compared to non-hypertension patients. About 85% and 32% of the inequality that exist are less likely to be explained and more likely to be unexplained respectively by marital status and education.

Conclusion and recommendation: An interventional policy program needs to be implemented to improve Quality of life satisfaction among adults with self-reported hypertension by providing universal health coverage and providing educational opportunities for adults to be equipped with the knowledge and skills to manage their health better in Ghana in order to achieve Sustainable Development Goal by 2030.

TUPE219

Risk factors of metabolic syndrome: A case control study among middle aged adults in the Kpando municipality; **Edith Kabukie Bannerman | University of Health and Allied Sciences, Ghana**

Background: In the stir of urbanization, excess energy, increasing obesity and increased sedentary lifestyle, Metabolic syndrome has become a key public health and clinical challenge worldwide. It is a cluster of cardiovascular risk factors characterized by central obesity, insulin resistance, atherogenic dyslipidemia and hypertension. This study's intent was to determine the prevalence as well as compare the lifestyle habits of cases and matched controls.

Methods: An age to sex one-to-one case-control study, involving 152 middle aged adults aged 45-65 years was conducted. Metabolic syndrome was determined by both World Health Organization (WHO) (high blood pressure $\geq 140/90$ mmHg, BMI > 30 kg/m² and high insulin level) and International Diabetic Federation (IDF) (central obesity, high blood pressure $\geq 135/85$ and fasting blood glucose ≥ 5.6) criteria. Anthropometry, lifestyle habits, physical activity and dietary diversity were assessed. Prevalence among cases and controls was also determined.

Results: The overall prevalence among the study participants was found to be 34.2% by the WHO criteria and 44.7% by the IDF criteria. The prevalence was found to be higher in cases, 67.1%, than controls, 1.3%, with just a few cases (32.9%) being able to control their Metabolic Syndrome status. Majority (88.2%) of cases barely took care of their health neither did they try to keep their body fit. They also did not participate in the at least 30 minutes at least three times a week exercise recommendation while most controls engaged in an active physical lifestyle.

Conclusion: With the overall prevalence of metabolic syndrome among the study participants being 34.2% (WHO criteria) and 44.7% (IDF criteria), the lifestyle methods to addressing the metabolic syndrome vary from dietary changes to being physically healthy, exercising, being fit as well as being psychologically healthy and avoiding tobacco and alcohol, nevertheless emphasis should be placed on reducing body weight and increasing physical activity and these must be part of everyday life and merged into social life to be effective.

TUPE220

Engaging men and boys to address HIV infection and gender based violence against women and girls in Kenya; **Vincent Musalia**
| Ayarhep, Kenya

Issue: Male involvement in preventing GBV and HIV infection among women and girls has been lagging behind for a long time. Statistics show that GBV against females is mostly perpetuated by male sexual partners or close males' relatives. In addition, evidence shows that health seeking behaviour by males is poor implying that majority of males who are Hiv positive do not know their Hiv status, hence involving men and boys to address this challenge is key.

Description: In the last two years, ambassador for youth and adolescent reproductive health program (AYARHEP), a youth network in Kenya escalated to interventions targeting males to protect females against Hiv and GBV where this period 1,500 males were reached with Hiv and GBV prevention information through outreaches and community dialogues. Through the community dialogues and outreaches 1,000 men, 500 boys as participants. More males accessed HTC during these events. 50% who attended outreaches tested for Hiv, 38% of males who attended dialogue events tested for Hiv and only 19% of their counterparts who attended events which targeted general community members tested for Hiv. There was a decline in number of cases of Gbv at our offices for the last six months. Also an increase of the number of men who declined negative gender norms by 60%

Lessons Learnt: Men and boys are influenced by community leaders to access HTC. The same group can be effectively mobilised of HTC through mobile outreach events that provide integrated services and edutainment. Women embrace negative gender norms than men, probably to keep their marriages, GBV against women drastically dropped especially among men who participate in ambassador for youth and adolescent reproductive program (AYARHEP) programs.

Next steps: Based on lessons learned, recommended that male engagement should be intensified for improved health seeking behaviours.

TUPE221

Status of Respectful Maternal Care in Ndola and Kitwe Districts of Zambia; **Tato Nyirenda¹, Paul Agina² | ¹CopperBelt University, Zambia, ²Amref Health Africa, Zambia**

Background: The study evaluated the status of respectful maternal care in Ndola and Kitwe districts in the Copperbelt Province.

Methods: The assessment used a cross-sectional study design and captured quantitative data on self-reporting of experiences of respectful maternal care during child birth among women in the reproductive age group with a child below the age of 2 years. The sample size was 471 resident women of the selected 18 high volume health facilities. Cluster sampling was used to select the sampling units referred to as catchment areas of the health facilities. A structured interview questionnaire was used to conduct household interviews.

Results: The findings show that on average, 18% of the women had experienced physical abuse by a service provider during child birth. Prominent issues that led to ill-treatment included 43% of the women not provided comfort/pain-relief. On average 41% of the women received non-consented care from the service provider. Women (74%) indicated that the service provider did not allow women to assume position of choice during birth. The findings also show that about 22% of women's right to confidentiality and privacy were not adhered to. Women (42%) also reported that there were no drapes or covering to protect their privacy and 19% indicated that there were no curtains/other visual barrier to protect woman during exams. Findings also show that on average 31% of women's right to dignified care was not adhered to. Key issues include, 65% of the women reported being left without care or unattended to and 28% service provider did not respond in a timely way. Further, only 6% of the women were detained in the health facility.

Conclusion: Indications of non-adherence to the rights of child bearing women are a barrier to achieving quality of care for child bearing women.

TUPE222

Immediate post-partum family planning in the public sector: A successful approach for increased family planning uptake in PIH/IMB supported districts; **Christian Mazimpaka | Partners in Health, Rwanda**

Background: Rwanda has made remarkable progress towards universal health coverage, but a major gap in service access remains around family planning (FP) where 19% of married women still have an unmet need for family planning despite service availability at public facilities and inclusion in the national community-based health insurance package. Immediate postpartum family planning (PPFP) expands access to FP services following delivery through integration with the existing continuum of maternal health care. Since December 2017, Partners In Health/Inshuti Mu Buzima(PIH/IMB) worked with the Ministry of Health to initiate PPFP in three districts.

Methods: PPFP in Rwinkwavu, Kirehe, and Burera started with a two-week provider training. Trainee skills validation was based on pre/post-tests and patient counselling checklists (required 80% to pass), and the number of modern methods properly provided (minimum 6) by a trainee. Mentorship and quality improvement activities follow each training and follow-up onsite trainings are conducted by district-based mentors. Engagement of local government to increase demand and community awareness was done through quarterly coordination meetings with health center and district leadership. HMIS is used to monitor PPFP coverage.

Results: Between December 2017-June 2018, 121 healthcare providers from 46 facilities (43 health centers; 3 district hospitals) were trained (average 2.6 providers per facility). Trainee provided 951 modern methods during practice sessions (average 7.8 methods per trainee). 100% of trainees were validated on theory, counselling and practice requirements. Following training, each facility received at least 1 mentorship visit, 1 onsite training and 1 coordination meeting. PPFP coverage increased from an average of 9% pre-training to 64% post-training across all districts.

Conclusion: PPFP service delivery strategy shows a positive quick trends of FP uptake in Kayonza, Kirehe and Burera districts. Continuous follow up of PPFP is necessary to track sustained improvements in FP coverage and impact on other maternal, newborn, and child outcomes.

TUPE223

Evaluation of Lily: An AI powered interactive messaging service supporting women throughout the reproductive health journey

MacGregor Lennarz¹, Suha Patel² | ¹Lily, Kenya, ²Brigham and Women's Hospital

Introduction:

Access to sexual and reproductive health (SRH) information is a matter of life and death for women in developing countries. "In developing countries reproductive health problems are a leading cause of ill health and death for women and girls of childbearing age." Unfortunately, "millions of women continue to be denied this human right, largely due to stigma and discrimination." The mission of Lily is to help overcome these barriers.

Description: Lily builds ongoing one-on-one private interactive conversational relationships with women on digital channels like SMS and Facebook Messenger. By leveraging the rapid democratization of artificial intelligence (AI) tools as well as the widespread adoption of mobile phones by women in developing countries, Lily Health was able to build these personalized conversational relationships with millions of women simultaneously. The Lily chat service was launched via SMS in Kenya in May 2017 and acquired users through January 2018. The intended beneficiaries were women in Kenya that sought SRH information.

Lessons learnt

A total of 4169 women subscribed to the service from both rural and urban areas. To more deeply understand the value of Lily to users, 30 women were randomly selected to receive an outbound call in which they were asked questions about their experience with the product.

The results suggest Lily is a trusted source of SRH information for women seeking to achieve pregnancy, prevent pregnancy, and remain healthy during pregnancy. This small evaluation also suggests that there are benefits to users such as increased confidence and avoiding or achieving pregnancy when desired.

Conclusion: Overall, the results show that personalized mobile chat services like Lily can have an impact at scale.

TUPE224

Malaria and West-Nile Virus Co-infection attending a Tertiary Hospital in Nigeria; **Kehinde Aina | University of Ilorin, Nigeria**

Background: Malaria and West Nile fever has ubiquitous distribution in Africa, mostly in sub-Saharan Africa where the prevalence of HIV infection is increasing. Many febrile patients are most times underdiagnosed or misdiagnosed with malaria due to striking similarities, such as fever shared by malaria and certain arboviral infections. Clinical symptoms of WNV fever often overlap with other agents of febrile illnesses.

Methods: This serological-survey investigated the prevalence of anti-WNV IgM and Malaria among HIV infected patients with febrile illnesses at Gwagwalada metropolis, Abuja. Between the period of May and August 2016, a total of 171 participants attending the University of Abuja Teaching Hospital were recruited for the study. Serum samples were immediately harvested, stored and analyzed using the indirect ELISA for anti-WNV IgM antibodies using kits endorsed by the World Health Organization and also Microscopy and RDTs for Malaria. Sociodemographic variables and clinical data was gotten using a self-administered interviewer based questionnaires.

Results: Out of the 171 febrile participants, the overall prevalence of WNV IgM antibodies was 66.1% whereas 29.2% were positive for Plasmodium falciparum. About 31.4% were positive for both WNV virus and P. falciparum. Significant association was observed in prevalence of WNV IgM and Malaria/WNV co-infection ($p < 0.5$). Sixty two (54.9%) of WNV seropositive females and 51/113 (45.1%) seropositive males was recorded. With regards to participants' knowledge, attitude and practice towards preventive measures against WNV, significant association was observed between the WNV IgM seropositivity and the use of mosquito repellents ($p = 0.016$).

Conclusions: Findings from this study necessitate the need for routine diagnosis and surveillance of WNV as possible agents of febrile illness in Nigeria. More so, infected patients should be closely monitored in order to detect possible associated sequelae.

TUPE225

Using Technology for improved financial management in donor funded projects; **Eunice Achola¹, Monica Oguttu¹ | ¹KMET, Kenya**

Background: Financial management is a critical function of management in any organization. PBOs has experienced major standoffs with the donor community, which has sometimes led to aid freezes. Before investing in technology, KMET faced the following challenges when handling multiple donor funds, risk of travelling with cash since bulk payments were done by cash, expenses were not easily separated and even donor income were all put in one pull which made it difficult to report, and accuracy of operation was a challenge, and, perhaps most importantly, the ability to see the real-time state of the Project's financial position. Reports were delayed and had errors.

Description: To respond to these challenges, KMET acquired Navision Software and Mpesa technology solutions for her financial management, risk management controls including performing bulky payments to project beneficiaries. At KMET, Navision system has made it easier when handling multiple donors, reporting and even allocation of shared costs among different donors in different project regions. Navision coupled with M-PESA system eases reimbursement of beneficiaries enabling bulk payments from a central point.

Lessons learnt: KMET has gradually witnessed improved donor funding over time due to timely and accurate reporting, minimised fraud and risks, reduction of transaction cost and improved efficiency. Financial management is a multi-faceted, comprehensive set of interlocking skills and systems. For organisations to succeed, they must integrate systems that earnestly promote transparency and accountability of the resources they receive. This is the surest way of ensuring that organizations earn trust of partners.

Conclusion/Recommendation: Information Technology (IT) is no longer a stand-alone function, it is an integral part of any organisation desiring prudent utilization of resources. Organizations will not survive as competitive players without IT.

TUPE226

Health systems strengthening; influence of organizational factors of community health volunteers (CHV) on use of community based health management information systems in selected counties, Kenya.; **Mambo Susan¹, George O Otieno², Ochieng Otieno³**
| ¹Kenya Methodist University, ²Rongo University, ³Kenyatta University

Background: World Health Organization (WHO) identified six key pillars of health system amongst them health information. The need to strengthen Community-based health information system (CbHMIS) has been felt globally. African countries have faced the greatest challenges in CbHMIS functioning. CbHMIS is the originator of health information (Odhiambo-Otieno, 2005). Properly organized structures for communities to deliver services at tier 1 are lacking, such structures empower communities to use CbHMIS. The objective was to assess the influence of organizational factors of Community Health Volunteers on CbHMIS use in selected counties, Kenya.

Method: Cross-sectional analytical study design was adopted, employing both quantitative and qualitative approaches. Target population was 156 active CUs (community units), total sample of 122 CUs was derived. Multistage sampling was used to identify the CUs, systematic random sampling to identify 366 respondents. 3 Focus Group Discussion (1 per County) with the members of the community health committees and 6 Key Informant Interviews (KIs) (2 per County) were conducted. Quantitative data was analyzed using SPSS, significance level was $P < 0.05$ at 95% CI, and results were presented in graphs, frequency tables, figures, narration. Qualitative analysis used content analysis using themes from objectives.

Results: Results show that the model is valid ($F(2, 363) = 118.427, P = .001$) hence the explanatory variable (X3, Organizational factors) is good in explaining total variations in Use of CbHMIS by community units. Further, (X3) explains 39.5% of total variation in CbHMIS use. ($R^2 = .395$).

Conclusion: The findings indicate that organizational factors influence greatly the CHVs use of CbHMIS.

Government and partners need to support formation and operations of more community unit structures which will in turn strengthen CbHMIS use towards strengthening the health systems

TUPE227a

Human Immunodeficiency Virus infection and unknown HIV status among Tuberculosis Patients in Ethiopia; **Aklilu Endalamaw | University of Gondar, Ethiopia**

Background: The occurrence of each case of HIV weighed the global HIV situation that leads to a failure of global TB control target and may have significant impact on health service resource utilization. This systematic review and meta-analysis was aimed to determine the prevalence of HIV infection and unknown HIV status among TB patients in Ethiopia.

Methods: We searched electronic data bases and accessed all studies conducted on TB patients that have been reported HIV status in Ethiopia between 2003 and 2018. Heterogeneity of the included studies was checked. Publication bias was assessed through funnel plot and more objectively by Egger's regression test. We employed random effect model to determine the pooled prevalence of HIV infection and unknown HIV status. The subgroup analysis was conducted based on the studies geographical location, the study population and the type of TB. The sensitivity analysis was conducted to see the effect of possible outlier on an overall estimate.

Results: The overall pooled prevalence of HIV infection and unknown HIV status among TB patients were 23.4% (95% confidence interval (95% CI= 19.6-27.2) and 6.4% (95% CI= 1.7-11.0) respectively. The pooled estimates of HIV infection based on the region of Ethiopia were; 31.4% (95% CI: 19.2-43.6) in Amhara; 28.6% (95% CI: 23.4-33.8) in Afar; 23.2% (95%CI: 9.9-36.5) in Oromia; 20.9% (95%CI: 17.8-24.0) in Addis Ababa; 16.5% (95%CI: 12.0-21.0) in SNNPR.

Conclusion and Recommendations: HIV is a great concern for public health program in many countries, including Ethiopia. The prevalence of HIV infection and unknown HIV status among TB patients were high. It should be addressed through implementation of different interventions.

TUPE227b

The burden of road traffic injury in Ethiopia; **Aklilu Endalamaw | University of Gondar, Ethiopia**

Background: Road traffic injury (RTI) is one of the main reasons for trauma-related admission in Ethiopian hospitals. Nationally representative data is needed to develop and implement the public health emergency management strategy. Therefore, this study was aimed to estimate the national pooled prevalence of RTI among trauma patients in Ethiopia.

Methods: PubMed, ExcerptaMedica Database (EMBASE), psycEXTRA, and Google Scholar databases were searched. Heterogeneity of studies was assessed using the I² statistics. Publication bias was checked by using funnel plot and Egger's regression test. The DerSimonian and Laird's random-effects model was used to estimate the pooled prevalence. Subgroup analysis was conducted by age and region. The trend of RTI estimated as well.

Results: The pooled prevalence of RTI among trauma patients in Ethiopia was 31.5% (95% CI: 25.4%, 37.7%). Regional subgroup analysis showed that the pooled prevalence of RTI was 58.3% in the region of southern, nation, nationalities, and peoples (SNNPR) and 33.3 % in Addis Ababa. Subgroup analysis based on patients' age showed that the pooled prevalence of RTI was 51.7% in adults, 14.2% in children, and 32.6 % in all age group. The time-trend analysis has shown an increasing burden of RTI in Ethiopian hospitals.

Conclusion: The burden of RTI among trauma patients was high. Therefore, strengthening road safety management throughout the country is needed to reduce RTI.

TUPE228

Innovative approach to improve antimalarial use in the retail sector Case of Western Kenya; **Joseph Kipkoech Kirui | Moi University School of Public Health, Kenya**

Introduction

More than half of artemisinin combination therapies (ACTs) consumed globally are dispensed in the retail sector. Malaria diagnostic testing is largely absent from the retail sector and, as a result, individuals without malaria consume 66–80% of ACTs sold over-the-counter, leading to overconsumption and poor targeting. In Kenya, ACTs sold over-the-counter are available at heavily subsidized prices, possibly contributing to their misuse. Inappropriate use of ACTs can have serious implications for the spread of drug resistance and leads to poor outcomes for non-malaria patients treated with incorrect drugs.

Description: We evaluated the public health impact of an innovative strategy that targets ACT subsidies to confirmed malaria cases by coupling free diagnostic testing with a diagnosis-dependent ACT subsidy. Our intervention was specifically designed to reach individuals purchasing drugs over-the-counter and to incorporate the retail sector, which delivers the majority of ACTs in Kenya.

TUPE229

Barriers to early diagnosis of breast cancer among rural women living in remote areas of Kenya; **Lucy Amanya Mutuli¹, Mary Walingo²** | ¹Masinde Muliro University of Science and Technology, Kenya, ²Masaai Mara University, Kenya

Background: Regular breast cancer screening facilitates early diagnosis with probability of improved treatment outcomes. Most women from rural areas evade this health procedure despite its accessibility in rural health centers. This retrospective study explored barriers hindering early diagnosis of breast cancer among rural women.

Methods: Data was qualitatively and quantitatively collected from March to July, 2017 in 10 health centers within 10 Counties of Kenya that were purposively sampled with 220 respondents.

Results: Lack of awareness on early detection, poor perception of breast cancer and social cultural influences emerged as main themes in qualitative data. Quantitatively, poor perception of breast cancer and social cultural influences significantly hindered early diagnosis of breast cancer at ($r=0.88, P<0.01$); ($r=0.82, P<0.01$).

Conclusion: Significance of regular screening should be imparted using strategies that improve regular screening behaviors to facilitate early detection and treatment. Policy makers should not only ensure that availability of screening services but utility as well

TUPE230:

Performance and feasibility of using both stool culture and nested PCR for improved detection of typhoid fever in Buea Health District, South West Cameroon; **Rita Ayuk Ndip¹, Richard Fopa Fomekong¹, Manfo Tsague Faustin Pascal¹, Boris Kingue Gabin Azantsa^{1,2}, Njutain Ngemenya¹ | ¹University of Buea, Cameroon, ²University of Yaounde, Cameroon**

Background: Presently diagnostic tests for typhoid fever include serology and culture which both have relatively low sensitivity and specificity. Polymerase chain reaction (PCR) has exhibited mixed performance for blood specimens in the detection of Salmonella. This study compared the performance of serology test, stool culture and nested PCR and their feasibility in the Buea Health district in South West region Cameroon.

Methods: Three hundred and sixty (360) patients suspected of typhoid fever and sixty one (61) apparently healthy controls were selected for the cross sectional study after consent. Blood specimens were analyzed using Widal serology test. Stool was cultured and grown cells further analyzed using biochemical tests and nested PCR targeting the flagellin gene of Salmonella species. Performances of tests were determined using standard formulas.

Results: Fifty (50) test group participants (13.9%) were stool culture positive for Salmonella following identification with API 20E test kit. Nested PCR had the highest sensitivity of 91.9%, $P = 0.000$, while Widal slide and tube tests had the overall lowest performance. When nested PCR was considered as gold standard, stool culture had the highest specificity of 94.6%, $P = 0.000$. Based on cost, turnaround time and performance, stool culture and PCR appeared as suitable methods for reliable diagnosis of typhoid fever.

Conclusions and recommendations: Stool culture could be used as gold standard in conjunction with serology to improve diagnosis of typhoid fever in the study area. Additionally an algorithm should be explored using PCR for suspected or severe cases negative for both serology and stool culture. Clinical laboratories can benefit from this study by adopting the proposed algorithm for diagnosis of mild and/or severe typhoid fever.

TUPE231

Characterization of 331G/A polymorphism of RP gene and identification of viral oncogene HMTV virus as genetic markers for the improvement of breast cancer management in Cameroon; **Nguedia Kaze Niels | University of Yaounde, Cameroon**

Introduction: Breast cancer is a real public health problem in Cameroon, where more patients with this cancer usually die a year after diagnosis, as it is still based on histological examination, mortality due to cancer is far from decreasing. Since cancer is an accumulation of molecular changes, the +331 G/A polymorphism of PgR gene (progesterone receptor) and viral oncogene HMTV (Human Mammary Tumor Virus) has been recently considered as a molecular markers associated with breast cancer. Due to that we fixed our objectives to characterize these markers.

Method: We carried out a case control study, in which 26 cases diagnosed positive for breast cancer at the CHU of Yaounde were recruited through the identification of archived biopsies. Blood samples were also collected from 20 women recruited using a questionnaire and a inform concern sign by each of them. +331 G/A polymorphism in the PgR gene was identified using NlaIV endonuclease by PCR-RFLP, and HMTV viral oncogene by hemienested PCR. The data were analyzed using Microsoft Excel and SPSS v20.

Results: We got a mean age of 57, 73 +/- 9, 87 in our cancerous group with the predominance of infiltrant duct carcinoma at grade II of SBR. An Odd Ratio of 1.268 with Confident Interval of 95% 1.004-1.664 proving that there is a significant association between 331G/A mutation and breast cancer with P-value of 0.026, obtained by comparing the mutant group (AA) 28,5% and wild genotype (GG). In addition, 3 cases were detected with the HMTV virus, one was found in the cancer group and two in the control group.

Conclusion: These results indicate that, HMTV is considered as viral cause and can predispose to breast cancer, beside 331 G/A polymorphism is an associated risk factor of that cancer.

TUPE232

Leveraging technology and innovative models of service delivery to accelerate access ; **Samuel Benefour | Population Council, Ghana**

Issues: Ghana's old penal code not only criminalizes but also penalizes sexual behaviours of key populations (KP) including Men who have sex with men, Female sex workers. There are also related issues that hinder KP access to quality service delivery including privacy and confidentiality, stigma and discrimination and financial challenges. These and other factors combine to increase the risk and vulnerability of KP thereby creating barriers to access, enrollment, and retention in HIV treatment and care.

Description: The USAID Strengthening the Care Continuum project, implemented by JSI, improves the Government of Ghana's capacity to provide quality and comprehensive HIV services for key populations and people living with HIV by improving access to and use of HIV services. To improve KP access to quality HIV services, 15 professional Helpline counsellors were trained and equipped with mobile phones and a toll free short code provided for KP to call. There is a Healthy Living Platform with 4 local languages and English which callers can subscribe to and exit anytime they want to. The platform transmits messages to FSW and MSM and PLHIV and also links them to Helpline counsellors. There are CSOs implementing innovative models including social network testing, Index testing, ghetto testing and using online platforms in reaching hidden KP.

Lessons Learnt: Helpline counselling provides opportunities for hidden KP to be linked to HIV and related services. The use of technology provides access to privacy and confidentiality The use of innovative strategies such as ghetto and Index testing increase KP access to services The use of local languages enhances KP access to wider availability of service delivery. The use of multi- channel approaches helps to reach different categories of KP.

Recommendations: Programme Managers should use mobile technology and innovative community approaches to meet the needs of individuals and communities. Government should leverage on Helpline Counsellors to sustain the intervention

TUPE233

“It provides multiple opportunities to complete the survey”: community members’ perspectives of using mobile phone for non-communicable disease risk factor surveillance in rural Uganda: a qualitative study; **Charles Ssemugabo | Makerere University School of Public Health, Uganda**

Background: WHO surveys for Non-Communicable Disease (NCD) risk factors are expensive to conduct and are usually done every five years or more. In order to have more up-to-date information, novel methodologies that can generate information on risk factors at more frequent intervals that have been implemented in high income countries such as use of mobile phones need to be piloted in low income countries, given the increase in the numbers of people having mobile phones. In this study, we explored the acceptability and usability of mobile phone survey for NCD risk factors surveillance in a rural Uganda.

Methods: Four Focus Group Discussions (FGDs) – 2 males and 2 females, 2 peri-urban and 2 rural were carried out with groups of 8 to 12 participants in rural Uganda. Participants were administered with a mobile phone survey on NCD risk factor before the FGD.

Results: Community members noted that mobile phone surveys were context specific; focused on health, and lifestyle issues within the community and delivered in local language. Community members were motivated to complete the survey because: content was clear and understandable, and administered in a calm voice; with opportunities to repeat instructions, maintain confidentiality, save time, and provide several chances to complete the survey. However, community members identified inability to use and lack of access to mobile phones; poor network connection; domestic violence; social construction towards unknown calls; and limited knowledge on mobile phone surveys systems as challenges to using mobile phone surveys. To improve operation and use of mobile phone surveys; incentives, chance to re-attempt the survey and reminder prior to the survey were suggested.

Conclusion: Mobile phone surveys for NCD risk factor surveys were embedded within community systems and thus acceptable and usable in rural Uganda. However, the barriers that could reduce its effectiveness need to be addressed.

TUPE234

Meaningful engagement of adolescent's girls and young women to policy advocacy and budget making processes in Mombasa County- A case study of AGoTA project; **Evans Ouma | Stretchers Youth Organization, Kenya**

Background: Girls face a myriad of obstacles accessing justice, this includes, gender biasness, distance from justice structures and unresponsive justice institutions. Without a proper legal framework, girls have no recourse to protect their rights and without equal access to education, girls cannot fully participate in their communities and national economy of their country. Governments and decision makers are accountable for ensuring that laws protecting adolescent girls are implemented and enforced, and that all citizens, especially girls, are aware of their rights under the law. Promoting legal and policy frameworks that empower adolescent girls and young women and advance their sexual reproductive health and rights

Methods: During the implementation period January 2018- July 2018, Stretchers Youth Organization identified and engaged 45 adolescent girls and young women aged between 10-24 years in Mombasa County as AGoTA champions (Adolescent Girls on Transformative Advocacy). The AGoTA champions were recruited from community serving organizations, learning institutions and out-of-school platforms. The adolescent girls and young women were taken through 2 days training on advocacy and policy engagement to build their capacity in HIV/Sexual reproductive health issues.

Results: 45, 100% females were trained as AGoTA champions. 5(11%) participated in adolescent technical working group in the county where they provided inputs to solutions affecting adolescents. 20(44%) engaged the Mombasa county in budget making processes through sectoral meetings and public participation financial year 2018/2019. 5(11%) have actively participated in the development of Mombasa county CIP-FP 2018-2022 and development of Mombasa county integrated development plan 2018-2022 through development and submissions of memorandums addressing the need to incorporate CSE in schools and adolescents SRH programming to be funded. 20(44%) participated in the development of the Adolescent and young people SRH/HIV strategy 2018-2023 of Mombasa County, the 1st ever county in Kenya to develop such a strategy.

TUPE235

The prevalence, risk factors and serotypes distribution of trachoma in Laikipia, Kenya 2017; **Mwatha Stephen | Neglected Tropical Disease Unit, Kenya**

Background: There are an estimated 1.8 million people infected with Trachoma globally, with most being in Africa due to poor water supply and sanitation. In Kenya, there are 7 million people living within endemic regions, and 85,000 people at risk of contracting the disease. We sought to estimate the prevalence and factors associated with Trachoma in Laikipia, one of the endemic counties in 2018.

Methods: We conducted a cross-sectional community-based study to estimate the prevalence of both active trachoma (TF) among children aged 1-9 years and possible blinding Trachoma (TT) in person's aged ≥ 15 years. The participants were randomly selected from 30 clusters within the three evaluation units. Using Cochran's formula, sample size of 1410 for TF and 5048 for TT was calculated. A standardized questionnaire assessing the risk factors was administered and water and sanitation facilities observed. We conducted descriptive statistics. Using chi-square for statistical significance with a 0.05 significance level. Risk factors were analyzed using unconditional multivariate backward logistic regression.

Results: Out of the 7429 examined, 3303 were aged 1 – 9 year, TF prevalence was 3.6% (95%CI 2.9-4.2, n=108) with 25.9% cases from Mathira Village in Laikipia West. TT prevalence was 0.8% (95%CI 0.5 -1.1, n=33). Using an unprotected water source (aOR=1.17, 95% CI 0.57 – 2.44%), living > one hour from water source (aOR=2.42, 95% CI 1.17 – 5.05%) and lack of private defecation amenities (aOR=2.14, 95% CI 1.05 – 4.37%) was independently associated with signs of TT among adult aged ≥ 15 years.

Conclusion: In all evaluation units, the TT prevalence was higher than the WHO elimination threshold (0.2%). Both TT and TF were below the threshold of a public health problem. Poor access to clean safe water and defecation amenities were associated with presence of active trachoma.

TUPE236

Is deployment of trained nurses to rural villages a remedy for the low skilled birth attendance in Ethiopia? A cluster randomized-controlled community trial; **Taddese Zerfu¹, Henok Taddese², Tariku Nigatu² | ¹APHRC, Ethiopia, ²DU, Ethiopia, ³ICAP, Ethiopia**

Background: Low coverage of Skilled Birth Attendance (SBA) is one of the major drivers of maternal mortality in many low- and middle-income countries (LMICs) including Ethiopia. We conducted a cluster-randomized controlled community trial to assess the effect of deploying trained community-based nurses to rural communities on the uptake levels of SBA in Ethiopia.

Methods: A three-arm, parallel groups, cluster-randomized community trial was conducted to assess the effect of deploying trained community based reproductive health nurses (CORN) on the uptake of SBA services. A total of 282 villages were randomly selected and assigned to a control arm (n = 94) or 1 of 2 treatment arms (n = 94 each). The treatment groups differed by where these new service providers were deployed, a health post (HP) or health center (HC). Baseline and end line surveys were conducted to document and measure the effects of the intervention. Program impacts on SBA coverage were calculated using difference-in-difference (DID) analysis

Results: After nine months of intervention, the coverage of SBA services increased significantly by 81.1% (from 24.61 to 44.59) in the HP based intervention arm, and by 122.9% (from 16.41 to 36.59) in the HC arm, respectively ($p < 0.01$). Conversely, a small and non-significant (2%) decline in SBA coverage were observed in the control arm ($P > 0.05$). The DID estimate indicated a net increase in SBA coverage of 21.32 and 20.52 percentage points (PP) across the HP and HC based intervention arms, respectively ($p < 0.001$).

Conclusion: Deployment of trained reproductive health nurses to rural communities significantly improved utilization of SBA services. Therefore; in similar low-income settings where coverage of SBA services is very low, deployment of trained community-based nurses to grassroots level could potentiate rapid service uptake. Additional cost-effectiveness and validation studies at various setups are required, before scale-up of the innovation; however.

TUPE237

Effect of deploying trained community based reproductive health nurses (CORN) on long-acting reversible contraception (LARC) use in rural Ethiopia: A cluster randomized community trial; **Taddese Zerfu | APHRC, Ethiopia**

Introduction: To investigate the effect of innovative means to distribute LARC on contraceptive use, we implemented a three-arm, parallel groups, cluster randomized community trial design.

Method: The intervention consisted of placing trained community-based reproductive health nurses, (CORN) within health centers or health posts. The nurses provided counseling to encourage women to use LARC and distributed all contraceptive methods.

Results: A total of 282 villages were randomly selected and assigned to a control arm (n= 94) or 1 of 2 treatment arms (n = 94 each). The treatment groups differed by where the new service providers were deployed, health post or health center. We calculated difference-in-difference (DID) estimates to assess program impacts on LARC use. After nine months of intervention, the use of LARC methods increased significantly by 72.3 percent, while the use of short-acting methods declined by 19.6 percent. The proportion of women using LARC methods increased by 45.9 percent and 45.7 percent in the health post and health center-based intervention arms, respectively. Compared to the control group, the DID estimates indicate that the use of LARC methods increased by 11.7 and 12.3 percentage points in the health post and health center-based intervention arms.

Conclusion: Given the low use of LARC methods in similar settings, deployment of contextually trained nurses at the grassroots level could substantially increase utilization of this.

TUPE238

Innovative capacity building approach for tenable gains in community case management by community health workers (CHWs) in Kenya; **Kenneth Ogendo | Living Goods, Kenya**

Issues: Reports on Integrated Community Case Management (iCCM) programming demonstrate there is a need to identify which strategies or interventions lead to heightened CHW performance. Most CHW trainings focus on clinical skills rather than cognitive skills, which are highly important. The ability for a CHW to cognitively identify danger and remember clinical guidelines for treatment has been a challenge in many iCCM programs. Because of this, community health service quality has remained sub-optimal.

Description: The Living Goods (LG) approach begins by selecting CHWs based on literacy and numeracy criteria. There are also practices where CHWs role play as clients and caregivers. CHWs are also put on clinical practicums and are cognitively screened and assessed on skill and competency. Upon graduation, those below the “passing mark” must have trainer support supervision as they attend their first rounds of household visits. After a month, trainers conduct the second round of support supervision on select CHWs. This round is followed by a session where feedback is given to the entire cohort. Further, CHWs must be recertified. During annual retesting, those who attain 80% get a recognition card with credentials.

Lessons Learnt: The combination of cognitive skills tests, competency-based practicums with skills based one on one simulations embedded with close support supervision, monthly in-service and consistent, annual accreditation cues the CHWs into action. It has improved the assessment, diagnosis, and management of pneumonia, malaria and diarrhea cases since quality reports demonstrate client satisfaction significantly. Cognitive skills are motivational constructs to ensuring and retaining knowledge and skills.

Next Steps: There is an ongoing and high-priority need to implement a broad mix of coaching mechanisms that lead to plausible gains in managing community cases. Annual accreditation of CHWs should be mainstreamed across the board.

TUPE239

The effect of human resource management on performance in hospitals in Sub-Saharan Africa; **Philipos Petros Gile¹, Martina Buljac, Joris van de Klundert²** | ¹Higher Education Institutions' Partnership, Ethiopia, ²Erasmus University Rotterdam, Ethiopia

Introduction: Hospitals in Sub-Saharan Africa (SSA) face major workforce challenges while having to deal with extraordinary high burdens of disease. The effectiveness of human resource management (HRM) is therefore of particular interest for these SSA hospitals. While, in general, the relationship between HRM and hospital performance is extensively investigated, most of the underlying empirical evidence is from western countries and may have limited validity in SSA. Evidence on this relationship for SSA hospitals is scarce and scattered. We present a systematic review of empirical studies investigating the relationship between HRM and performance in SSA hospitals.

Methods: Following the PRISMA protocol, searching in seven databases (i.e., Embase, MEDLINE, Web of Science, Cochrane, PubMed, CINAHL, Google Scholar) yielded 2,252 hits and a total of 111 included studies that represent 19 out of 48 SSA countries.

Results: From a HRM perspective, most studies researched HRM bundles that combined practices from motivation-enhancing, skills-enhancing, and empowerment-enhancing domains. Motivation-enhancing practices were most frequently researched, followed by skills enhancing practices and empowerment-enhancing practices. Few studies focused on single HRM practices (instead of bundles). Training and education were the most researched single practices, followed by task shifting. The study reveals that employee outcomes and organizational outcomes are frequently researched, whereas team outcomes and patient outcomes are significantly less researched. Most studies report HRM interventions to have positively impacted performance in one way or another. We find that specific outcome improvements can be accomplished by different HRM interventions and conversely that similar HRM interventions are reported to affect different outcome measures.

Conclusion: Our study identified remarkable little evidence on the relationship between HRM and patient outcomes. Moreover, the presented evidence often fails to provide contextual characteristics which are likely to induce variety in the performance effects of HRM Interventions. Coordinated research efforts to advance the evidence base are called for.

TUPE240

Reducing the HIV testing-gap by advancing access to HIV self-testing by adolescents and youth in Kenya; **Hildah Essendi | Population Services, Kenya**

Introduction: HIV test coverage remains inadequate in high-burden settings, where more than 60% of people living with HIV (PLHIV) are not aware of their status. In Kenya, where the prevalence of HIV is 5.6%, 80.7% of adults 20-24 report having ever tested for HIV and received the results, compared to 85.2% of adults 25-29, and about 6.1% of adults over 30 (NASCO, 2014). While test coverage has expanded substantially in sub-Saharan Africa region in general and in Kenya in particular over the past 10 years, adolescents and young people (AYP) remain a hard to reach group, and less than 50% of youth ages 15-19 have ever tested for HIV (NASCO, 2015). HIV self-testing (HIVST) is one potential approach to improving testing uptake among AYP.

In Kenya, there has been a substantial decline in the prevalence of HIV and infection rates and there is need to decrease the "testing gap" especially amongst the adolescents and youth aged 15-24 years who have been seen to contribute to close to half (46%) of new HIV infections - growing evidence on the role of HIV self-testing in helping countries reach the 90-90-90 UN targets which calls for a scale-up of HIV testing so that 90% of people with HIV are aware of their infection. The objective of the study was to explore Kenya's adolescents and youth perceptions, concerns, barriers and motivators to use of both oral and blood based HIVST kits that are being distributed to improve on existing interventions targeting the gap.

Results: A number of barriers to conventional testing and HIV Self-Testing were identified including cost, access/inconvenience, stigma, youth-unfriendliness and lack of privacy.

Conclusion: HIVST was viewed as a solution to these barriers. It is thus critical to think of best possible ways to reach AYP with HIVST to improve testing rates in the country/region.

TUPE241

Understanding Health Worker Migration: An in-depth analysis of the health work migration in Zambia; **Aaron Mujajati¹, Dona Anyona², Viviane Sakanga² | ¹Health Professional Council of Zambia, Zambia, ²Amref Health Africa, Kenya**

Background: Zambia has witnessed severe shortage in skilled health workforce despite an increase in employed staff by the Health Ministry in the recent past. This study explores the extent of health worker migration, both internally and externally in selected provinces of Zambia and whether they are adequate policies to address this problem.

Methods: The study was conducted in four provinces of Zambia namely Lusaka, Copperbelt, Southern and Central. A cross sectional study design using a mixed method approach was used. Sampling was done purposely to avoid problems of non-response and cost. Primary data collection was done using semi-structured questionnaires (N=190) and key informant interviews (N=7) targeting medical doctors and nurses from government hospitals and policy makers.

Results: The study found the rate of migration in the selected sites being 23.7% for internal migration and 14.7% for international migration. 53% of the respondents knew at least one health worker who had migrated to another country with 72.1% of the respondents indicating an intention to migrate outside the country if an opportunity arose. Their desire to migrate was motivated by pull and push factors, with the policies reviewed indicating that they have not comprehensively addressed health worker migration and are crafted based on inadequate data that does not respond to key issues in terms of availability of health workers, local (rural urban) migration and international migration.

Conclusion and Recommendation: The negative effect on health workforce affects mainly nurses and doctors. By and large, migration of health workers limits Zambia's ability to deliver health care services efficiently and equitably to its citizens, especially in rural Zambia. Policies and policy decisions need to be more proactive to effectively manage the migration. The government needs to invest in signing bilateral agreements with destination countries; besides improving on existing retention incentives to keep health personnel in post.

TUPE242

Prevalence and factors associated with tuberculosis among household contacts of people treated in the Limbe and Tiko Health Districts; **Emmanuel Yenshu¹, Njunda Anna¹, Mukenyu Abwendo Yvonne¹ | ¹University of Buea, Cameroon**

Background: Tuberculosis (TB) is still a major issue of public health concern. Despite the advancement in technology and the discovery of vaccines, better diagnostic tools and treatment regimens there has been no drastic change in prevalence. This has led to the implementation of other strategies like direct observed treatment short course (DOTs) and active case finding giving the opportunity for undiagnosed cases and persons with latent TB to be identified and treated. The objective of this study was to determine the prevalence and associated factors of TB infection among household contacts of TB patients under treatment in the Limbe and Tiko Health Districts.

Methods: A descriptive and analytic cross sectional survey was carried out. Household contacts of TB patients were traced to their homes and tested. All household contacts (90) were tested using a serological test (CTK) and persons who were positive were further tested using microscopy (Zielh Neelsen's technique).

Results: The prevalence of TB among HHC of Patients in the Limbe and Tiko Health District was observed to be 5.6%. No statistical significant risk association was found between the index case AFB diagnosis and household contact infection. Taking other medication was found to be positively associated with TB infection among household contacts.

Conclusion: The prevalence of TB among household contact of TB patients in the Limbe and Tiko Health district was 5.6%. Contact tracing and household investigation will improve case finding and reduce the spread of infection. The inhabitants' knowledge of the disease in the Limbe and Tiko Health Districts needed to be improved upon.

TUPE243

New global health networks that works!; **Tyrell Junius | Globis University, Japan**

Issue: The main issues revolve around effective cross collaboration frameworks between public and private sector entities to pool resources for creating shared value platforms toward community health sustainability.

Description: Leveraging mobile technology to bridge frontline clinical personnel skills and specialty doctors to mentor rural based doctors for assisting with remote diagnosis consultations. Telehealth applications are making leaps in Ghana, Zambia, and Japan towards achieving Universal Health Coverage for all. Resulting in reduced referral rates, lower waiting times for patients, cost savings for government, and new skills gained by clinical officers and community health workers who are working in the most remote areas where need is the highest. The world is on the road to value-based care and precision medicine where tailored solutions are given to patients. Population health is being conducted by monitoring patient's medical history and using case management to get people to the right level of care at the right time.

Lessons Learnt: Many African low to medium income countries do not have a stablished telemedicine regulatory framework. This should not impede implementation; however, it is imperative to work alongside key government officials in the health and technology sector to ensure smooth cooperation with end users and subject matter experts.

Furthermore, it is imperative to work with existing referral networks and to incorporate follow up mechanisms between the referral hospital and the health facility that referred the patient.

Next Steps: Scaling up findings for telehealth applications innovative finance mechanisms to benefit all stakeholders in the health value chain. Including insurers, company health benefit programs, public sector, and academia. This new mix of blended finance from multiple players will be a deciding factor in achieving UHC 2030 goals.

TUPE244

Access and quality health care: **Jared Osoro | Ministry of Health, Kenya**

Introduction: Access to quality health care is a challenge to many African communities especially those from low socioeconomic backgrounds. This has been attributed by lack of insurance cover, emergency and re-emergence of communicable diseases poor planning and inadequate trained and skilled human resource workforce at the primary health facilities. Community health workers have proved to improve access to health care and in early detection of communicable diseases as well as coordinating referrals during emergencies. Every health worker can deliver quality services in a well-organized health system.

This can help achieve the health outcomes and make health care universal. Health care system which is well financed with proper accountability leads to provision of integrated services that if well utilized can reduce the disease burden among African communities. In order to achieve primary prevention of diseases, community health workers need to be empowered with necessary skills as well as having adequate number of skilled and experienced health workers at the lower levels of health care as this is the main contact point with health care services. To achieve universal healthcare we need to ensure that public confidence is maintained from the lower level of health care up to the higher levels of health management where health policies are formulated.

The national should ensure that all the essential commodities are available at the nearest primary health facilities throughout the year. The staffing levels should always coincide with the population being served at that locality. We cannot track the progress without investing in research, monitoring and evaluation of the quality of health care that we offer to our clients therefore the need for proper documentation. Staffing levels correlates with the population being served and the range of services that are provided at that facility.

TUPE245

Improving teaching and learning process to produce competent nurse midwives. Experience from Tanzania; **Ukende Shalla | Jhpiego, Tanzania**

Issue: There was lack of competences among students and newly employed midwives, also the students were missing close supervision from the staff within the practicum sites. Also there was lack of strong collaboration between academic staff and facility staff so all of these issues brought MBM-RTz to find a way to bridge the gaps by establishing capacity building for both academic and practicum staff so that they can assist students and newly employed staff and establishment of preceptorship to support students at the clinical area.

Description: The More and Better Midwives for Rural Tanzania (MBM-RTz) Project is supporting the Ministry of Health, Community Development, Gender, Elderly and Children (MOHCDGEC), and other government entities of Tanzania aiming at improving maternal and newborn health through improving quality of nursing-midwifery education hence producing competent nurse-midwives through the use gender-sensitive Continuous Quality Improvement (CQI) approaches and capacity building of tutors and preceptors.

Lessons learnt: When close supervision to students and newly graduates will improve human resource. Baseline assessment were 27% and 65 % this was according the standard set by MoHCODGEC and currently results are between 74% to 98% this about 50% of institutions were doing well by June 2018.

Next steps: We will continue to support the schools and make sure that it improves to the excellence. Also will involve the stakeholders at the zonal level so that they continue to support Institution for sustainability.

TUPE246

Parliamentarians engaging in the fight to end TB; **Uwase Nadege Munyaburanga | Kigali Hope Association (KHA), Rwanda**

Introduction: Africa carries a significantly higher burden of TB comparative to the rest of the regions globally. The region accounted for 28% of globally notified TB cases in 2014. In 2015 alone, 10.4 million people fell ill with the disease and out of these, only 6.1 accessed good quality care. The rest missed out. In the same year 1.8 million died from TB. TB crises demands a more comprehensive response from both Government and non- Government actors including CSOs for increased political will which will yield increased funding and improved policies to address the epidemic.

Rwanda is making great progress in TB response. According to WHO report, In 2015 alone, the country reported about 5,637 new TB cases and 120 drug resistant cases. It had surpassed the WHO target of treatment success rate which stood at 86 % (against a target of 85%). However, even with such successes, the country is still heavily dependent on international funding which represented 60% of the total TB funding.

Funding from domestic resources was 21% thereby leaving a funding gap of 19%. To achieve the WHO targets of ending TB by 2035 Africa needs to work together to address the gaps which include increase funding from domestic resources. The Africa Parliamentary TB Caucus is one forum that provides a platform for countries to plan together to achieve this goal.

Description: With the knowledge that MPs are busy with many competing priorities, the global TB caucus works with CSOs who work on health to support the MPs in the Caucus activities. As such, the caucus identifies one person who is committed and willing to volunteer their time in supporting the activities of the caucus. Their role include supporting the MPs in related research, acting as the liaison persons between the Global TB caucus secretariat and the MPs.

TUPE247

Building capacity through collaborative learning for effective use of health workforce data to inform devolved decision-making in Kenya's Counties; **Robert Nguni¹, Jacob Mutwiri¹, Janet Muriuki¹ | ¹IntraHealth International, Kenya**

Issue: Kenya's 2010 constitution created a devolved health system with authority for human resources (HR) vested in 47 county governments. Managing a decentralized health workforce requires comprehensive, agile information systems. USAID-funded Human Resources for Health (HRH) Kenya Mechanism, led by IntraHealth International, is building county capacity to use and sustain an open-source integrated HR information system (iHRIS) to manage data needed to make informed HRH decisions. The project provides technical assistance (TA) to 27 priority high HIV-burden counties, leaving 22 without direct support. To ensure national iHRIS coverage, the project employed a Collaborating, Learning, and Adapting (CLA) approach.

Description

The project trained HRH officers from 27 counties using Ministry of Health approved iHRIS curriculum. iHRIS focal persons were selected from each county. From the pool of focal persons, 17 champions were selected and received training-of-trainers (TOT) course to lead the CLA process of cascading iHRIS training, providing TA, and mentoring iHRIS users. IntraHealth-supported counties and non-supported counties were paired to facilitate an operational iHRIS across all counties. TOTs included innovative and adaptive approaches to tailor training to county context and need.

Lessons Learned: CLA is a practical, solution-based methodology that has helped county HR systems take root through iHRIS champions, mentors and focal persons. iHRIS has 1,788 users with 596 staff in 27 counties trained on advanced iHRIS and 300 from 22 counties trained using CLA. 248 users provided TA; 29 mentees were supported; and 67,500 records updated in iHRIS. 20 counties developed HRH dashboards to assist leaders in visualizing and making decisions—e.g., planning, budgeting, recruitment, deployment. Non- IntraHealth-supported counties have increased capacity to utilize iHRIS to update records and inform decisions.

Next steps: CLA will be extended to other aspects of HRH including in-service training, data analytics, leadership & governance, and employed for implementing partners and medical training institutions.

TUPE248

Scaling up isoniazid preventive therapy for children <5yrs to increase access to TB prevention: Experience from Ugunja Sub-County, Kenya; **Margaret Maureen Atieno | Ministry of Health, Kenya**

Background: Tuberculosis (TB) is one of the world's deadliest communicable diseases. Siaya County is among the top ten high burden TB counties. A child's risk of developing TB is reduced by 60% with administration of a 6-month course of isoniazid preventive therapy (IPT). The uptake of IPT nationally is low at 13% against the 50% target. Ugunja Sub-County in Siaya sought to scale-up provision of IPT for TB exposed children <5yrs.

Methods: The TB contact register rolled out in January 2018 is intended for use by TB clinic staff to line list the contacts of each BAC patient while explaining the importance of the exercise to the patient. The patients are then requested to bring their children to clinic a week later for TB screening. Asymptomatic children <5yrs are then started on IPT to prevent active TB. Data of notified TB cases for 2017 and 2018 were analyzed for trends of bacteriological confirmed (BAC) TB cases against contact/exposed children <5yrs. From January to June 2017, out of the 51 BAC TB cases, 15 children <5yrs were initiated on IPT. During the same period in 2018 and with the TB contact register in use, out of 49 BAC TB cases, 37 children <5yrs were initiated on IPT. This represents 29% and 76% IPT target achievement during the period of observation in 2017 and 2018 respectively.

Conclusions and Recommendations: The use of the TB contact register increases access to TB prevention for exposed children <5yrs and accelerates achievement of the 50% IPT target. TB clinics should adopt the register as a standard way for TB contact line listing and follow up.

TUPE249

The role of Information Technology in maximizing Primary Health Care Human Resources for Health Governance in Kaduna State, Nigeria; **Agbonkhese Oaiya¹, Ummulkhulthum Bajoga¹, Rotimi Oduloju¹, Layi Olatawura¹ | ¹Health Strategy and Delivery Foundation, Nigeria**

Background: The Nigerian Government plans to achieve UHC by revitalizing the fragmented Primary Health Care system. The Primary Health Care Under One Roof (PHCUOR) policy that focuses on centralizing Human Resources for Health (HRH) governance, management, and planning amongst others, under one authority; the Kaduna State Primary Health Care Development Agency (KSPHCDA) was developed to achieve this goal. However, its implementation has been sub-optimal because of an inadequate and inequitably distributed workforce. The aim of the research was to improve the availability of timely and accurate HRH information, and stimulate evidence-based workforce planning. The objective was to develop and institutionalize an electronic HRH information system to help the Agency govern, manage and plan better for the PHC workforce.

Methods: A roadmap that strengthens HRH governance and improves the availability of timely evidence-based HRH information was developed after consulting with key stakeholders in the state. Using a data collection tool, HRH information was extracted from paper-files, sanitized using the state and LGA scheme of service, and subsequently validated.

Results: 6,110 PHC staff serving an estimated 8.5million people were transferred to the KSPHCDA, of which 53% were female. 70% were between 31 – 50 years; 31 – 40 years 33% and 41 – 50 years 37%. CHEW 22%, Health Assistant/Attendant 29%, JCHEW 11% are the leading professions in the PHC. By the year 2020, an estimated 5% of the workforce should be exiting the workforce.

Main conclusions: Findings from the research highlight the skill-mix of the PHC workforce transferred from the LGA,

Conclusion: Further staff verification is required to sanitize the PHC workforce. The KSPHCDA has used these findings to conduct an HRH gap analysis in 255 priority health facilities and began the recruitment process for 3,314 staff; 0.70% medical officers, 26% JCHEW, 21% Nurses/Midwife, 3% environmental health officers, 7% pharmacy technician

TUPE250

Process evaluation of a mHealth project for preventative screening and monitoring of expectant mothers using focused ethnography in the Sahel Region of Burkina Faso, Africa; **Antonia Arnaert¹, Norma Ponzoni¹, Zoumanan Debe² | ¹McGill University, Burkina Faso, ²Centre intégré universitaire de santé et de services sociaux de l'Ouest-de-l'Île-de-Montréal, Bukina Faso**

Introduction: Introducing mHealth within resource-poor communities is not without its technical, financial and infrastructural challenges, and even today, little is known about the process of implementing sustainable mHealth services in these regions. The B.E.L.T. Framework helps to guide stakeholders in identifying the core contextual elements that must be in place to ensure successful implementation and organizational readiness. Hence, this presentation will describe the challenges experienced when implementing the project STREAMS (Strengthening Relationships and Enhancing Access to Maternal Services), using this framework, in a rural community in Sahel region of Burkina Faso (BF), Africa- a pilot project funded by Grand Challenges Canada.

Methods: A focused ethnography, using participant observation and semi-structured interviews with midwives, community health workers (CHWs) and expectant mothers (n=21), documented the process through the use of descriptive field notes which were content analyzed.

Results: According to the healthcare workers, the mHealth service enhanced the communication between midwives working in local community centers and CHWs located in the rural villages and as such contributed to the quality of care offered. From another perspective, the mothers felt that their health needs were better addressed by this model of care. Despite having a champion who drove the implementation, the main challenges that arose were mainly due to problems of Internet connectivity and a lack of healthcare workers' baseline computer skills, which had consequences on the initial training sessions and subsequent service delivery.

Conclusion: The availability of limited information on the rural context/demographics and similar mHealth projects in BF led to a misfit between the initial plan and the contextual reality. Having access to this type of background information is especially important to the success of mHealth initiatives within resource poor contexts. Despite these challenges, all participants were enthusiastic and saw the potential of using mHealth services, suggesting wide-spread implementation across the country.

TUPE251

Community Life Center Digital Solutions; Niels Buning | Philips, The Netherlands

Introduction: The Philips Community Life Center (CLC) approach is an integrated and interoperable healthcare ecosystem for linking community and primary care into a connected system. A CLC offers a community-driven, holistic approach to improving primary and community care.

Description: The CLC workflows are powered by our CLC digital health solutions: Mobile Obstetrics Monitoring (MOM) MOM helps community caregivers and doctors work together to identify and manage highrisk pregnancies, bringing care to where it's urgently needed: primary health centers and patients' homes. MOM features a way for community caregivers to capture vital information so that a clinical decision support pregnancy risk level can be calculated. Mobile applications connect doctor, caregiver and patient for diagnostic assistance and progress assessment.

Monitoring & Evaluation (MEL) - MEL consists of two main components:

Remote Monitoring: The aim of RM is to monitor assets, devices and other resources via a digital solution centrally. Status of devices can be updated by a single click on a smart button linked to each device. A remote engineer can then assign a call to a field service engineer to troubleshoot the problem.

KPI Monitoring: this module implements KPIs as defined by the Primary Health Care Performance Initiative. It integrates with the local EMR in the health facility. It also allows the users to create various surveys in the tool. The idea is to benchmark performance of one health facility versus another.

Phoenix platform - IT backbone of the CLC Phoenix is the IT backbone of the CLC. It allows all applications built on the platform to be interoperable with other existing IT systems on the ground. It also allows for easy scalability of these solutions. Through Phoenix applications can work in three models: cloud based, onpremise and hybrid.

TUPE252

Gender integration improves learning in nursing-midwifery Schools in the Lake and Western zones of Tanzania; **Benison Mujchunguzi¹, Theresia Venance¹ | ¹Jhpiego, Tanzania**

Issue: Gender inequality has been documented to be a barrier in effective learning in the nursing midwifery schools' environment including clinical practice sites. This also negatively affects the competence of the graduates. A project executed Gender mainstreaming/integration in nursing-midwifery learning environment and proved to improve the situation.

Description The More and Better Midwives for Rural Tanzania project is a Canadian-funded project that supports the Government of Tanzania in improving the Nursing-Midwifery Schools so as to produce competent graduates. Before actual implementation, the project conducted gender analysis to determine gender-related factors that affects learning that were integrated in the implementation. At the midterm, the project conducted midline gender assessment to monitor progress/outcome of implementation that promote gender equity, document evidence-based approaches to foster project implementation towards attaining gender equity in learning, and establish implementation progress data on gender for the project.

Lessons Learnt: Gender responsive teaching methodologies by balancing the gender and equality at all aspects of teaching has improved the teaching and learning at the Nursing School. Both male and female students are now treated equally on accessing the desired supports towards acquisition of clinical skills. Mixing male and female students in sitting arrangements in classrooms has improved female confidence and performance.

Next Steps: Continuous promotion and advocacy on gender integration nursing-midwifery training institution so as to sustainably produce competent midwives. This will be done in project catchment areas. Advocacy shall be extended to the government level so at to expand the interventions throughout all the institutions in the Country.

TUPE253

The use of predictive models in improving access antenatal care services; **Stephen Tashobya | Makerere University, Uganda**

Introduction: In many areas of Uganda continue experiencing high rate of maternal and neonatal health challenges. This is attributed to complications during pregnancy and child birth. Women often fail to access services on time and most women do not complete the required four visits due to long distances, as well as bias of treatment from ANC providers. This remains a challenge as women in rural areas are twice less likely to attend ANC services than those in urban centers. Predictive models that predict pregnancy complications have been suggested as an intervention to reduce maternal mortality but at the moment, many are not used in clinical practice.

Methods: We conducted a qualitative study in south-western Uganda in which we held structured interviews, and FGDs with pregnant women, midwives and village health worker in Kanungu district, Uganda. It explored how knowledge about use of the mobile predictive device was transferred among the health care workers, the factors effecting adaption and uptake of the device and how using the device affects the health seeking behavior. Who have been using ICT models to predict pregnancy complications and how pregnancy complications are predicted.

Results: Results were analyzed using components from the innovation/diffusion theory. We find that overall, ICT has not been fully exploited to improve access to quality care, improve predictions and to improve collaboration among different stakeholders in Uganda. Our findings suggest that the use of predictive mobile devices at community level improves health seeking behaves with positive experience of tests at home enable predictive models and other technologies to assume an active role in maternal healthcare thereby supporting health practitioners and pregnant women with different skills and knowledge to predict pregnancy complications and hence improving access to health services.

TUPE254

Exploring experiences of mothers with a community dialogue model in accessing skilled attendant care within rural context in Rachuonyo South Sub County Homa Bay County in Kenya; **Iscah Moth | Ministry of Health, Kenya**

Introduction: Most maternal deaths occur in Sub Saharan Africa where mothers still have no access to antenatal care and births are conducted at home in the absence of skilled attendants. The study used the dialogue model (DM) an innovative approach with community health volunteers to reach women in rural context where access to skilled care is still very low at 23% compared to the national 44%. The purpose of the study was to explore the experiences of mothers before and after dialogue model an attempt to increase skilled attendant care. The main objective was to explore the experiences of mothers with community dialogue model in accessing skilled attendant care.

Methods: The study adopted narrative design collecting baseline and post dialogue implementation data. Information from mothers was explored initially followed by process of dialogue through ANC to delivery. Sample size comprised 18 mothers aged above 20 years Data was collected using semi structured indepth interview guides based on experiences of those who attended ANC, skilled and unskilled attendant care. Data collection and analysis were done concurrently and this helped to increase insights. Analysis was done thematically from narrative stories of individual participants.

Results: Participants interviewed were unable explain information imparted to them during ANC, Expected Date of Delivery, number of visits, complications during pregnancy, delivery and gestation at first visit. However decision to seek care was reached by the mothers themselves not influenced by other family members.

Conclusions/Recommendations: Inadequate information was evident before intervention and this improved after the community dialogue. Community health volunteers facilitated health education both at the health facility and in community during home visits.

TUPE255

Innovative capacity building approach for tenable gains in community case management by community health workers (CHWs) in Kenya; **Kenneth Ogendo | Living Goods, Kenya**

Issues: Reports on Integrated Community Case Management (iCCM) programming demonstrate there is need to identify which strategies or interventions lead to heightened CHW performance. CHW trainings focus on clinical skills rather than cognitive skills, which are highly important. The ability for a CHW to cognitively identify danger and remember clinical guidelines for treatment has been a challenge in many iCCM programs. Because of this, community health service quality has remained sub-optimal.

Description: The Living Goods (LG) approach begins by selecting CHWs based on literacy and numeracy criteria. There are simulations where CHWs role play as clients and caregivers managing cases. CHWs are also put on clinical practicums and are cognitively screened and assessed on skill and competency. Upon graduation, those below the “passing mark” must have trainer support supervision as they attend their first rounds of household visits. After a month, trainers conduct a second round of support supervision on select CHWs. This round is followed by a session where feedback is given to the entire cohort. Further, CHWs must be recertified after attending 12 monthly in service courses and sit for a quiz in each. During annual retesting, those who attain 80% get a recognition card with credentials.

Lessons Learnt: The combination of cognitive skills tests, competency-based practicums with skills based one on one simulations embedded with close support supervision, monthly in-service and consistent annual accreditation cues the CHWs into action. It has improved assessment, diagnosis and management of pneumonia, malaria and diarrhoea cases since quality reports demonstrate client satisfaction significantly. Cognitive skills are motivational constructs to ensuring and retaining knowledge and skills.

Next Steps: There is need to implement a broad mix of coaching mechanisms that lead to plausible gains in managing community cases. Annual certification of CHWs should be mainstreamed across board.

TUPE256

Digital labour and delivery solution (DLDS) – A validation study; **Sarah Kedenge¹, Elizabeth Mwashuma¹, Caroline Gitonga¹, Alice Tarus¹, Albert Orwa¹, Caroline Kyalo¹, Eddine Sarroukh¹ | ¹Philips, Kenya**

Background: The digital labour and delivery solution (DLDS) is a tablet-based solution envisaged to make monitoring of labour and delivery more systematic and efficient and provide a tool for easy communication between health care providers in maternity within and between health facilities. The aim of the study was to test the applicability, benefits, and limitations of DLDS in a low-resource healthcare setting in Kenya.

Methods: The study was designed as an open-label exploration study, divided into two phases. The first phase involved assessment of the healthcare professionals' use of the partograph as per routine practice. The second phase involved both the use of the tablet based solution and paper partographs. The study was implemented at two sites within Kiambu County, Githurai Langata Health Center and Ruiru Sub-County Hospital.

Results: During phase one, a total of 22 midwives were trained. The one-day training mainly included a refresher on partograph use and training on research ethics. The midwives consented 82 pregnant women. From the partograph analysis, majority of parameters were documented with only few with minimal or no entry. During phase two, 15 midwives from phase one were trained on the application. The midwives entered data for 75 pregnant women into the application. Their feedback was mainly positive with a large majority stating the partograph, history taking and discharge summaries as the most exciting features. The application scored 65% on the system usability scale, highlighting the need for some feature changes. The integration of the planned referral module was highlighted as key.

Conclusions: The findings from this study demonstrate the need for continued support and training in ensuring 100% completeness of partograph parameters. Feedback from the application demonstrated that with some modifications, it provides an opportunity to improve the efficiency and effectiveness in the management of patients during labour and delivery.

TUPE257

Use of text messaging to improve maternal health service delivery in Uganda: A case of SMS Maama mHealth; **Derrick Bary Abila¹, Sonja Ausen-Anfrani², Katelyn Pastick², Maddy Kluesner², Betty Nakabuye³, Racheal McDiel⁴** | ¹Makerere University, Uganda, ²University of Minnesota, USA, ³Rubaga Hospital, Uganda, ⁴Emory University, USA

Background: Uganda has the third highest birth rate in the world and a maternal mortality rate of 360 deaths/100,000 live births. SMS Maama is a public health promotion service that sends interactive and health informative SMS messages to pregnant women in Kampala, Uganda.

Methods: From June 2017 – January 2018, 111 participants between 10-28 weeks gestation were enrolled into SMS Maama mHealth Pilot study at Benedict Medical Center in Luzira, Kampala.

Results: 12,283 outgoing text messages were sent to 111 participants, with 9,020 (73.4%) successfully delivered including 80 antenatal appointment reminders and 815 interactive screening questions. Of these screening questions, 431 (52.9%) were responded to indicating whether or not a mother had danger signs of a pregnancy complication. 95% (95) felt receiving the texts made them feel more knowledgeable about their pregnancy and that the information they received was useful. 83% (83) of the mothers believed reading and interacting with the text messages made them more likely to attend their antenatal appointments. 98% (98) of the mothers stated they would recommend the service to a friend or loved one. 83% (83) believed earning points through the SMS Maama system made them more likely to respond to interactive health screening questions and bring a partner with them during antenatal appointments. 86.9% (86) of the women were willing to pay for the service the next time they used it with a mean payment of US 3.1±2.5.

Conclusion: Mothers are willing to interact and make consultations with the service. This shows that they have trust in it. The SMS Maama mHealth public health service has been widely accepted by the women and presents an opportunity to use local resources to provide critical information to women during pregnancy, increasing knowledge among women, and encouraging timely access to care.

TUPE258

Factors influencing the adoption of electronic health records in public health facilities; **Christine Semo Isemeck | JKUAT-Institute of Tropical Medicine (KEMRI), Kenya**

Introduction: Electronic health records (EHRs) are the fundamental building blocks of any national health information system which provide essential health services for universal health coverage.

They have distinct advantages over paper based health records which enable health care workers to acquire, use and communicate high quality information about patients. However, resistance to technological change among public health facilities is still witnessed owing to a number of factors contributing to low rate of EHR adoption. The study adopted cross sectional design in 12 public hospitals with a sample size of 132 health care workers.

Method: Qualitative data was recorded and transcribed and data coded and analyzed. While quantitative data was coded and analyzed using SSPSS.

Results: Underpinned to the concept of Technology Adoption Model (TAM), the study established that there was a significant statistical relationship between technological factors and existing EHR levels as well as between organizational factors and EHR levels. This implies that technological factors, organizational factors and perceived usability of the system are among the factors influencing the adoption of EHR system but contributing to low rate of EHR adoption in public health facilities. Technological barriers to EHR adoption; lack of adequate EHR related infrastructure and limited distribution in functionality across key departments while lack of financial resources, low budgetary allocation and lack of training support by hospital management have the most influence in organizational factors that contribute to low rate of EHR adoption. Individual factors had the least influence towards low rate of adoption.

Conclusion: In order to meet people's needs for quality health services, the study recommends that the national government in liaison with the county government to provide adequate financial support by increasing budgetary allocations on EHR project which will improve the availability and functionality of EHR related infrastructure, training support programs and any other impeding challenge to EHR adoption.

TUPE259

HIV/AIDS treatment failure and its associated factors in Ethiopian context; **Aklilu Endalamaw | University of Gondar, Ethiopia**

Background: The pooled burden of HAART failure in Ethiopian context is required to provide evidence towards renewed ambitious future goal.

Methods: Ethiopian Universities' (University of Gondar and Addis Ababa University) online repository library, Google Scholar, PubMed, Web of Science, and Scopus were used to get the research articles. I-squared statistics was used to see heterogeneity. Publication bias was checked by Egger's regression test. The DerSimonian-Laird random-effects model was employed to estimate the overall prevalence. Subgroup analysis based on the geographical location of the study, study population, and study design was conducted to see variation in outcomes. The sensitivity analysis was also employed to see whether the outlier result found in the included studies.

Results: Overall HAART failure found is 15.9% (95% CI: 11.6%–20.1%). Using immunological definition, HAART failure was 10.2% (6.9%–13.6%); using virological definition of treatment failure (5.6% (95% CI: 2.9%–8.3%)) and using clinical definition of treatment failure (6.3% (4.6%–8.0%)) were also determined. The pooled effects of WHO clinical stage III/IV (AOR=1.9; 95% CI: 1.3–2.6), presence of opportunistic infections (AOR=1.8; 95% CI: 1.2–2.4), and poor HAART adherence (AOR= 8.1; 95% CI: 4.3–11.8) on HAART failure are estimated.

Conclusion and Recommendations: HIV treatment failure in Ethiopia found to be high. HIV intervention programs have to be giving more emphasis to prevent opportunistic infections and sustain HIV treatment adherence.

TUPE260

Importance of autophagy in the peripheral blood t-cells of patients with bronchial asthma; **Yulia Skibo¹, Cyrille Vodounon², Boris Legba³, Vladimir Evtugyn¹, Irina Reshetnikova¹, Zinaida Abramova¹ | ¹Kazan Federal University, Russian Federation, ²Université de Parakou, Bénin, ³University of Abomey, Benin**

Background: The concept of the role of programmed cell death in the pathogenesis of bronchial asthma, despite the extensive data from the literature, is still not completely understood and is still controversial. The increased interest to the process of autophagy in various physiological and pathological conditions is the focus of the present study. Therefore the aim of our research was to investigate the morphological and biochemical features of autophagy in peripheral blood T-cells (PBTC) from asthmatic patients and healthy donors in stress conditions and analyze the effect of dexamethasone on autophagy of PBTC from the same groups.

Methods: We recorded 40 patients with mild persistent, 30 patients with severe persistent asthma and 45 normal healthy controls in this study. Autophagy was evaluated based on the expression of microtubule-associated protein light chain 3 (LC3) by western blot, Fluorescence microscopy and flow cytometry. The transmission electron microscopy was used for the detection of autophagosome.

Results: The results showed that autophagy was activated in T-cells of patients with mild and severe asthma compared to the normal healthy control. The stress conditions induced autophagy in T-cells of asthmatic patients with mild and severe form, but not in control group. Dexametasone traitement of T-cells stimulate apoptosis in the group with mild form asthma and in control group but in the group with severe asthma dexametasone induce autophagy. We might conclude that there is a dependency relationship between cell death by apoptosis and autophagy

Conclusion: Autophagy plays an important role in the pathogenesis of asthma especially of severe asthma and may be contribute to the survival and the activation of T-lymphocyte in patients with severe asthma.

TUPE261

Intelligent medicine vending machine to improve access to healthcare; **Lumumba Irvine | Kenya**

Issues: Lack of access to quality and affordable healthcare is still claiming a lot of lives in Africa and the world over. The aim of this project is to provide that last mile access to medicine and healthcare for people in far flung areas and in emergency situations. In the process it is hoped that leveraging on technology: a) Health human resources will be strengthened, b) Smarter data on drug usage and prevalent diseases will be available and c) Ensure quality and non-counterfeit medicines in the market.

Description: The machine – still under research and development – works in two ways: a) Dispenses drugs after a doctor's prescription, b) Interrogates the patient to determine what drugs to dispense through machine learning and artificial intelligence algorithms especially for OTC drugs and emergency situations. In the event that the machine is unable to diagnose or prescribe, an option is offered for the patient to call one of the vast available practitioners in the database who can then give further guidance be it on the diagnosis or on the best kind of drugs to take.

Lessons learnt: In our preliminary survey mostly with medical practitioners working in public hospitals and institution-based facilities (school clinics etc), fear of misdiagnosis by the machine was most prevalent. But that is nothing to be afraid of as the machine will work progressively learning trends and common ailments and their prescriptions before offering such a service. Besides we will always have a practitioner counter-checking machine prescriptions before they are dispensed. We have talked to 20 medical practitioners so far working at different places including KNH.

Next steps: Developing a prototype and testing it hopefully by next year April 2019, when we hope to do our very first public testing and proof of concept.

TUPE262

Communication and media advocacy among adolescents and young people in Kenya; **Brenda Bakobye**^{1,2}, **Johnson Birgen Akai**²
| ¹Maisha Youth, Kenya, ²Sauti Skika Adolescents and Young People Network, Kenya

Issue: Access to HIV/Health services remain a challenge for adolescents and young people (AYP) in Kenya. Research has shown that access to information remains critical to improving access to HIV/Health for adolescent and young people. The advent of new media like Facebook has created new opportunities for AYP to engage with the audience in hard to reach environments. Facebook, YouTube, Twitter and SMS (1190 by LVCT) sites have introduced new convening platforms for peer to peer engagement among AYP individuals and create opportunities for AYP organizations to disseminate critical information that encourages access to health services to AYP.

Description: By reviewing and analyzing 10 existing platforms that offer AYP online health referral services. We were able to determine how social media influence access to information among AYP to access relevant health information. Our analysis proved that organizations that effectively utilize social media platforms are able to reach more AYP with specific information on HIV/ Health Services and there for able to mobilize more ambassador to use in future advocacy initiatives that target policy implementation and review on health

Lessons Learned: While our findings reported an increase in number of AYP individuals who were able to access information on HIV/ Health services in the 10 platforms reported, it was difficult to determine how this impacted on real and meaningful access to quality health services for AYP in the facilities

Next steps: Our findings also raised issues regarding the need for lower study to determine how access to information on social media impacts behavioral change among AYP and how this translates real and meaningful access to quality health care services.

TUPE263

Pushing back Universal Health Coverage: Causes and consequences of absenteeism of health workers at the PHC level in Nigeria

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Background: Primary healthcare centers (PHCs) are the closest source of formal healthcare services to healthcare consumers, especially for rural dwellers. PHCs are widely spread across the 774 Local Government Areas of Nigeria, and statutorily within the direct control of local government areas. However, there is inefficiency of health workers at the PHC level, with absenteeism a major cause of the problem. Hence, it is important to deeply examine the issue of absenteeism of health workers across PHCs in Nigeria. The study assessed the causes and consequences of absenteeism amongst frontline health workers at the PHC level on health outcomes, and also solutions. Other objectives were to examine the influence of gender, political economy, social events, marital responsibilities, distance, work equipment, and remuneration on absenteeism. The study also investigated the possible effectiveness of different interventions already in place at these PHCs to curb absenteeism and their likely effects on health workers' presence and efficiency at work.

Methodology: The publication by Belita et al (2013) on developing typology for absenteeism helped provide a conceptual framework where we considered categories of absenteeism that are corruption laden from those that are not. The study relied on qualitative methods of data collection and analysis.

Findings: Absenteeism was common amongst health workers in PHCs in Nigeria. Influence of gender, political economy, marital responsibilities, work welfare including remuneration and security, as well as poorly equipped facilities were frequently mentioned as causes of health workers' absenteeism. Existing interventions were found not to be adequate to check absenteeism.

Conclusion: Political influences should be addressed in order for Sanctions on absenteeism to work. As all these when addressed would amount to speedy realization of the 2030 Universal Health Coverage.

TUPE264

Implementing strategic purchasing to improve access to maternal health services in a sub-national unit: A case study of Bungoma County Kenya; **Boniface Mbutia | Kenya**

Introduction: Kenya devolved the management of health services in 2013. This allows a sub-national unit the County, to develop strategies to improve health outcomes directly and with the support of development partners. Bungoma County recorded a low skilled birth attendance (SBAs) of 40.5 % (2014/15, KDHS) and was identified as one of the counties contributing to high mortality rate at position 42 out of the 47. In 2015, Maternal and Newborn Improvement (MANI) project with the financial support of UK-AID began implementing a strategic purchasing intervention performance based financing (PBF) to help improve quality and quantity of maternal health services. Together with the County Government, the MANI team identified indicators, reimbursement rates, health facilities, method of evaluating quantity and quality indicators and a feedback mechanism of the results to the participating health facilities

Method: We analyzed results reported from 2015 from the quarterly quality and quantity evaluations.

Results: More reimbursements on SBAs 47-63% of all incentivized services, significant rise in SBA rates from 40.5% (2015) to 72% (2018), improved quality of care upon quarterly evaluations, more health facilities achieved their EMoNC status, increased facility autonomy enabled health workers provide realistic solutions in service delivery and better utilization of primary health services

Conclusion: Although we had two major industrial actions (i) December 2016- March 2017 and (ii) July to November 2017, factors that have adverse effects on production of health services, implementation of PBF demonstrated that strategic health purchasing made the health systems resilient and contributed to significant increase in skilled birth attendance. Strategic health purchasing contributed positively to both increase in quality and quantity of MNH at the primary health facilities

TUPE265

Advocacy and lobbying for Maternal and Child Health in Nigeria: towards achieving the health related SDG; **Chinyere Okeke** |
University of Nigeria, Nigeria

Background: Poor maternal and child health (MCH) in Nigeria is underpinned by combination of different initiatives (policies, plans, strategies or guidelines) which have yielded little results as the indices are still very bad in the country. This has led the citizens to advocate for improved health of mothers and children at the national and subnational levels since it has been found that direct advocacy to key decision makers and development of relationships will lead to strengthened alliances and increased action on policy issues and investments in health with resultant outcomes that will impact positively on the health of mothers and children. This study aims to look at the strategies and outcomes of advocacy and lobbying for maternal and child health in Nigeria to improve the country's indices and help achieve the health related SDG goals.

Methods: The study was undertaken at the national level, Federal Capital Territory (FCT) Abuja. Data was collected using review of relevant documents and key informant interviews (KII) using a pretested question guide. Data was analysed using the manual content analysis.

Results: The strategies used included: actively engaging decision makers, building of coalitions/ leadership to organise collective action, mobilizing the public, dissemination of available evidence, effective use of funds by reducing bureaucracies, motivation to produce results, use of influencers as implementers. The outcomes were: development of new MCH policies, increased political will, rights based decision making, adoption of policy recommendations, increased funding and increased service delivery and utilization.

Conclusions and recommendations: This study shows that a participatory process of advocacy by different actor coalitions is vital to progress and can lend greater legitimacy, service delivery and utilization, accountability and transparency to maternal and child health programs in Nigeria. Future policies and interventions should take account of the reported effective outcomes and build on it to improve the health conditions of mothers and children.

TUPE266

Identifying and prioritising health sector corruption in Nigeria; **Obinna Onwujekwe¹, Charles T. Orjiakor¹, Eleanor Hutchinson², Martin Mckee², Prince Agwu¹, Chinyere Mbachu¹, Pamela Adaobi Ogbozor¹, Uche Obi¹, Aloysius Odii¹, Hyacinth Ichoku¹, Dina Balabanova² | ¹University of Nigeria, Nigeria, ²London School of Hygiene and Tropical Medicine, UK**

Background: Corruption is wide-spread in the Nigerian health sector, yet there is paucity of knowledge/evidence on its systemic nature, and ways institutions and social systems drive corrupt practices. Understanding corrupt practices thriving in health systems is important in positioning health systems for Universal Health Coverage. The aim was to examine existing types of corruption, the incentives that enable corrupt practices and the ways and means of reducing such corrupt practices in the Nigerian health system.

Methods: A systematic review of literature identifying corrupt practices reported in studies focusing on Nigeria was conducted. A priority setting workshop using Nominal Group Technique (NGT) with 30 frontline health workers was held to identify and prioritize different types of corrupt practices according to their significance in Nigeria and how feasible they could be addressed. Microsoft Excel was used to assign numerical weights to the rankings made by participants.

Results: In the literature review, 50 publications were reviewed identifying a wide range of corrupt practices in Nigeria's health sector. In the NGT, frontline health workers originally identified 49 types of corruption which was later aggregated to 19 distinct corruption types. Ranking and re-ranking sessions revealed the top five corrupt practices that emerged (with their weighted scores) to be: absenteeism (53), procurement-related corruption (34), under the-counter payments (33), health financing-related corruption (28), and employment-related corruption (26). Participants agreed that some of the corrupt practices could be meaningfully tackled using horizontal approaches that exclusively involve health workers, street level bureaucrats and community groups.

Conclusion: Corruption is pervasive in the Nigerian health sector, but there are 'horizontal' solutions that can be implemented at the health facility and community levels to reduce the scourge and improve health system performance. Further studies will be undertaken to reveal the preferences of health workers of the ways and means that could be used to tackle the most common corrupt practice, which is absenteeism.

TUPE267

Student midwives' use of the partogram at a District Hospital in Lesotho; **Portia Khanyile Shanduka | Paray School of Nursing, Lesotho**

Background: The partogram is a World Health Organisation (WHO) recommended labour monitoring chart to reduce maternal morbidity and mortality due to intra-partum complications. Partogram use is one of the competencies applied in the clinical area in the Midwifery Competency Based Curriculum that the government introduced in 2014. Students' evaluation of clinical learning revealed the challenge of theory- practice discrepancies regarding use of the partogram in clinical settings

Objectives: The purpose of the study was to explore student midwives' use of the partogram in the clinical practice setting.

Methods: The study is explorative, descriptive and contextual qualitative design. Data was collected from purposively sampled key stakeholders in October and November 2017. These included individual interviews with one tutor and a clinical instructor, two focus group discussions with students, and one focus group discussion with Paray Mission Hospital midwives. Thematic analysis was done after open coding of the transcribed audiotapes.

Results: Four major themes emerged with three categories each. 1. Theory satisfactory - (i). Partogram components knowledge. (ii). Knowhow of plotting and interpret. (iii). Value of the partogram.

Non- authentic simulation- (i). Non-authentic midwifery simulators. (ii). Observations 2.and recordings frequency only feasible in simulation settings. (iii). Partogram competency and confidence not fully developed in simulation. Theory-practice incongruence- (i).Partogram a 'school / student thing'. (ii). Clinical 3. area resources limit partogram use. (iii).Clinical confidence and competency only developed after long practice exposure. Suboptimal professional role modelling- (i). Partogram non-use by midwives' with good 4. birth outcomes depreciate students' value of the partogram. (ii). Unsatisfactory supervision by professional midwives. (iii).Midwives' role strain.

Conclusions: Unfavourable hospital conditions limit students' full use of the partogram. Collaborative quality improvement of clinical learning systems by faculty and service is recommended to support students.

TUPE268

Who is more corrupt: Identifying the perpetrators of absenteeism among health workers in Nigeria; **Charles T. Orjiakor¹, Obinna Onwujekwe¹, Pamela Adaobi Ogbozor¹, Prince Agwu¹, Aloysius Odii¹, Martin McKee², Eleanor Hutchinson², Dina Balabanova² | ¹University of Nigeria, Nigeria, ²London School of Hygiene and Tropical Medicine, UK**

Background: Unplanned and voluntary absenteeism is a serious corruption concern among health workers as it undermines effective health care delivery and compromise strives towards Universal Health Coverage. Low resource settings are most impacted by absenteeism, yet the nature of absenteeism, perpetrators and motivators are poorly researched and understood in low resource settings. The rationale of the study is to illuminate absenteeism as a form of corruption afflicting the health sector, and providing evidence of corruption types existing in Low to Middle Income Countries and subsequently engaging concerned, often grass root stakeholders to tackle the corruption. The study aimed to identify: i) which group of health workers are mostly absent,(ii) factors that contribute to absenteeism (iii)effective strategies that may be valuable in checking absenteeism among health workers in Nigeria.

Method: A qualitative design and approach was adopted. 18 health workers (6 physicians, 6 nurses, 6 health administrators) and 6 service users were interviewed using in-depth interview topic guides. Thematic data analysis was used to explore the data.

Results: Health workers in rural areas were reported to be more absent from work. Drivers of absenteeism were low patient load, poor monitoring, poor social amenities to support living and working conditions. Primary health centres reportedly had higher absenteeism than other levels of healthcare. It was widely reported that absenteeism was often noticed among higher ranking staff, albeit senior doctors were observed to be the most absent spurred by dual practice. No disparity was observed in the frequency of absenteeism between males and females. However, its drivers differs among gender. The use of biometrics to monitor absenteeism has not been effective especially in rural areas.

Conclusion: The findings are helpful to health policy researchers and policy makers targeting groups that are more likely to absent from work in specific health settings

TUPE269

Challenges in accessing sexual and reproductive health services among young people with disabilities in Ghana; **Abdul-Aziz Seidu**
| **University of Cape Coast, Ghana**

Introduction: The United Nations Convention on the Rights of PWDS mandates people with disabilities to enjoy equal rights in every sphere of their lives including the right to access sexual and reproductive healthcare. However, young people (10-24) with disabilities (YPWPDs) continue to face challenges in accessing these services. This study sought to assess the challenges YPWPDs face in accessing sexual and reproductive health (SRH) services in Ghana.

Methods: The study employed a descriptive cross-sectional design and was carried out in 2017 among 2127 in-school YPWPDs. Data used for this study were part of a national survey among 16 special schools in Ghana. Data were collected by trained field assistants with pretested questionnaires. The data were entered into SPSS Version 23 and analyzed by STATA version 14. The data were analysed using descriptive and binary logistic regression models.

Results: The study findings show that the major challenges YPWPDs faced in accessing SRHS are high cost of health services, physical challenges and problem of communication. The results from the logistic regression shows that Muslims were more likely to face challenges in accessing SRHS. However, females, those in SHS/Technical, those in the northern ecological zone, the visually impaired and those who rated their health status as very good were less likely to face challenges in accessing SRHS.

Conclusion: These findings highlight the need by the Ministry of Health in collaboration with the Ministry of Education to make it an intervention priority to train health personnel on the use of sign language and brails to equip them with knowledge and skills to enable them adequately address the needs of PWPDs at health care centers, and to devise alternative interventions to address the plight of young males with disabilities.

TUPE270

Using school health program for malaria early treatment and increase school attendance; **Ndahimana Jeand'Amour¹, Habiyaremye Michel², Ngarambe Alphonse³, Umugisha Jean Paul⁴, Dusingize Clemence⁵, Nahimana Evrard⁴, Aimable Mbituyumuremyi⁵ | ¹Partners in Health, Rwanda, ²Rwinkwavu District Hospital, ³Kayonza District, ⁴PIH/IMB, ⁵Rwanda Biomedical Center**

Introduction: The malaria incidence increased more than 7 times over the last six years in Rwanda and the demographic health survey showed that bed net use among children between 5-14 years was 49% versus 71% of general population and malaria prevalence was two times higher in that category of age than general population (11% versus 5.2%). Most of these children are in primary and secondary schools for the gross rate enrolment in primary was 140% in 2017 which made schools an opportunity for malaria control. Therefore, Partners in Health initiated school health program (SPH) to screen and treat students malaria at school.

Program description: Nine schools were randomly selected and all teachers trained on malaria screening and treatment. Drugs and other commodities were provided at school by nearest health center which also ensure continuous mentorship. Students screened positive received drugs at school others referred to health facility. We summarized six months results and determined the proportion of fever among registered students, malaria positivity rate among fever cases, and the impact on school attendance - evaluated by comparing the school missing before and after intervention. We had had also group discussions with parents and teachers on SHP.

Results: Among 17,278 registered, 88% presented fever and screened using rapid test, malaria positivity rate was 56% among cases with fever and 100% received treatment. The overall proportion of students that missed schools decreased by 26.5% (p value 0.0001) and Headmaster testified the improvement of teachers' attendance after six months of SHP. In addition, parents testified the gain of more time they should use for childcare seeking.

Conclusion: The SHP should be considered as holistic approach for health service access, quality of education and economically empowerment of community and the package should exceed malaria control and consider other health conditions, non-communicable and communicable diseases

TUPE271

How does the purchaser-provider relationship foster strategic purchasing in a social health insurance scheme? A case study from Nigeria; **Enyinnaya Ifeoma Etiaba¹, Obinna Onwujekwe¹, Ayako Honda², Ogo Ibe¹, Kara Hanson³, Benjamin Uzochukwu¹ | ¹University of Nigeria, ²Sophia University, Japan, ³London School of Hygiene and Tropical Medicine, United Kingdom**

Background: In an attempt to achieve universal health coverage (UHC), Nigeria introduced a number of health insurance schemes. One of them, the Formal Sector Social Health Insurance Programme (FSSHIP), was launched in 2005 to provide health cover to federal government and formal private sector employees. It operates with two levels of purchasers, the National Health Insurance Scheme (NHIS) and Health Maintenance organisations (HMOs). This study critically assesses the purchasing arrangements between the NHIS, HMOs and healthcare providers and determines how the arrangements function from a strategic purchasing perspective within the FSSHIP.

Methods: The study was undertaken in Enugu state, Nigeria using qualitative methods. Data was gathered through reviews of documents, 17 in-depth interviews (IDIs) with NHIS, HMOs and healthcare providers, and two focus group discussions (FGDs) with FSSHIP enrolees. A strategic purchasing lens was used to guide data analysis.

Results: Purchasing frameworks were not being used strategically to influence provider behavior and improve efficiency and quality in healthcare service delivery. These frameworks are: accreditation of healthcare providers; monitoring of HMOs and healthcare providers; and use of capitation payments for primary healthcare services. The government lacks adequate resources and political will to perform their stewardship role while provider dissatisfaction with payments and reimbursements adversely affected service provision to enrolled citizens. Underlying this inability to purchase health services strategically is the two-tiered purchasing mechanism wherein NHIS is not adequately exercising its stewardship role to monitor and guide HMOs to fulfil their roles and responsibilities as purchasing administrators.

Conclusion: Purchasing under the FSSHIP is more passive than strategic. The governance framework requires strengthening and clarity for optimal implementation so as to ensure that both levels of purchasers undertake strategic purchasing actions. Additional strengthening of the NHIS is needed for it to have the capacity to play its stewardship role in the FSSHIP.

TUPE272

Utilization of free maternity services and implementation challenges; a case study of Baringo County Referral Hospital, Kenya;
Emmy Rutto | Ampath, Kenya

Introduction: Maternal and child health has remained a high priority for the government of Kenya and in particular the ministry of health. The free maternal health care initiative provides subsidized health insurance to pregnant women, giving them access to an existing range of insurance benefits that include comprehensive maternity care with some notable exceptions such as ambulance services and post-partum family planning counseling. The aim of the study was to assess the utilization of free maternity services and implementation challenges in Baringo County Referral hospital.

Methodology: The study was done in Baringo County Referral hospital in, Baringo Central Sub-County. Cross-sectional study design was adopted involving 42 women attending both the ANC and PNC that were chosen through stratified random sampling. Data was collected through a structured questionnaire which had five sections.

Study findings: The key findings of the study revealed that the utilization of the maternity services was increased since the inception of the policy of making the services free. The findings showed that most of the respondents (65 %) had delivered in a public hospital more than once with about (35%) delivering for their first time in the public hospital.

Conclusion: Free maternity service has helped women from poor background gain access to quality health care. There was an increase in utilization of the facility since the inception of the policy. The major challenge found was inadequate staff at the facility.

Recommendation: The county government should employ more staff in the hospital to cater for the increasing number of patients.

TUPE273

Cancer ecosystem assessment in West Africa: health systems gaps to prevent and control cancers in three countries: Ghana, Nigeria and Senegal; **Sylla Thiam¹, Issa Wone² | ¹Sunu Sante Consulting, ²Universite de Ziguinchor-Senegal**

Introduction: Sub-Saharan Africa is experiencing a rapid epidemiological transition with the increasing incidence of Non-Communicable Diseases (NCD). Among these, cancer is one of the main causes of death in adults. This is a public health problem whose burden is unknown because of the lack of statistics. In addition, the already overburdened health systems are experiencing enormous constraints to address the problem with the double challenge of communicable and NCDs. The purpose of this evaluation was to assess the capacity and needs of health systems to prevent and control cancer.

Methodology: A cross-sectional study, using both quantitative and qualitative methods, was conducted between April 2017 and February 2018 in target countries, through in-depth interviews with key actors, direct observations and documents review. The WHO framework for health system strengthening with the 6 pillars was used for the gaps analysis.

Result: Little priority is given to the fight against cancer because of low political commitment. Programs' resources are very limited and there is a poor coordination of the actions. Human resources are insufficient with a total number of oncologists rarely exceeding 5 per countries, and most of them are concentrated in the capital city. This limits access to care with a late consultation of patients. Diagnosis and treatment services are expensive and generally paid by households. Finally, the unavailability of reliable data at national level hinders the decision-based evidence.

Conclusion: There is an urgent need to create strong partnerships at national and regional levels to (i) Advocate for a strong political commitment; (ii) Strengthen the coordination of actions and create more synergy among stakeholders; (iii) Improve the quality and quantity of human resources; (iv) Extend universal health coverage to cancer and improve program funding; and (v) Set up cancer registries at national level.

TUPE274

Self-testing of HIV, a non-medical approach to test key populations: An experience of Humanity First Cameroon; **Paul Thierry Mbida Anguissa¹, Antoine Silvere Olongo¹, Jean Paul Enama Ossomba¹ | ¹Humanity First, Cameroon**

Introduction: In Cameroon, HIV prevalence remains highly concentrated amongst key populations, including men who have sex with men (44% in Yaoundé and 20.5% in Douala, according to the 2016 IBBS study). As West and Central Africa are subjected to a catch-up plan to reach the 90-90-90 targets set up by UNAIDS, PFAOC, has therefore decided to use HIV self-testing strategy in order to increase the number of MSM who are aware of their status.

Methods: Three phases were needed to operationalize this strategy. We trained peer educators to use and interpret the results of this test. They therefore went on the field to distribute test kits. They handed flyers to clients and phone numbers of psychosocial counselors in case of any reactive result. Clients with a reactive result were received at the drop-in center to do the test. Following the national algorithm, positive results were enrolled for treatment.

Results: Between February and July 2018, peer educators distributed 120 test kits in the community.

11 kits were tested reactive and those clients were referred to the drop-in center in order to do the test following the national guideline. All the 11 clients with the reactive results were retested HIV positive. They were referred to health facilities for antiretroviral therapy.

Conclusion and recommendations: Self-testing is the best way to test the “hard to reach” clients who do not want to come to the drop-in center due to discrimination. It also enables us to provide community-based HIV testing and to verify the fact that non-medical services are a means to ensure the reaching of the three 90s of UNAIDS. The community has to be involved at all stages at the cascade especially on the 1st 90 which is the entry point.

TUPE275

Improved upper management support for sustainable laboratory improvement: Lodwar County Referral Hospital (LCRH), Kenya experience; **James Marcomic Maragja | Ministry of Health, Kenya**

Background: In cognizant of Resolution AFR/RC58/R2 (2008) and Maputo Declaration that emphasizes the strengthening of laboratory system, the top management in LCRH resolved to implement and bolster this noble course by enrolling LCRH laboratory in Strengthening Laboratory Toward Accreditation (SLMTA) process. Since 2015, the top-level management through the office of the director zealously committed itself to successfully compete at the international level of performance. It knew without management commitment, laboratory involvement and practice, the effort would be stymied and abortive. This study is aimed at demystifying the massive support the management has accorded the laboratory for continual and sustainable improvement.

Description: Before the SLMTA process commenced in LCRH, the management was brought on board and sensitized about the entire process by the experts with an aim of fostering commitment and buy-in. This was fundamental in enlightening the management on how the process will provide a controlled and efficient high level of technical competence and quality service to its customers. All the departmental heads that were directly or indirectly linked to the laboratory were involved which included but not limited to Nursing head, clinician, laboratory staff, and maintenance staff—towards the mission of sustainable quality practices.

Lessons learnt: The Laboratory moved from zero to three stars and currently earmarked for accreditation. There was an overhaul renovation, extension and reorganization of laboratory floor plan for optimal workflow. Equipment was put on the service contract and a reduced equipment downtime from 30% to 2% due to controlled temperature and periodic preventive maintenance. The management engaged in resource mobilization and advocacy which increased staff level from 8 to 15, participation in external quality assurance schemes, a budget for commodities, training and mentorship.

Conclusion: Management commitment and laboratory staff teamwork is an impetus for continual and sustainable laboratory quality management system.

TUPE276

In vitro study of some characteristics of red blood cells with hemoglobin S; **Jacques Ezéchiél Lokonon | EPAC/UAC, Benin**

Introduction: Sickle cell anemia is hemoglobin sis due to mutated S hemoglobin widespread in the black race. The aim of this work was to determine some biological properties of erythrocytes with hemoglobin S in order to monitor the efficacy of anti-sickle cell traditional treatments.

Methods: A total of 393 patients were taken from the Zou regional hospital in Benin for hemoglobin electrophoresis, the Emmel test and the osmotic resistance of red blood cells.

Results: The hemoglobin electrophoresis phenotyped 63.87% AA, 17.81% AS, 10.94% AC, 2.80% SS, 4.07% SC and 0.51% CC. The Emmel test was positive in 100% of SS cases, 90% of AS cases and 93.75% of SC cases. The rate of sickle cell formation was less than one hour in 100% SS and 72.73% SC. In the AS phenotype, the appearance of sickle cell was rather progressive (25% of cases in one hour, 35% in two hours, 20% in three hours and 20% in four hours) suggesting competition between both types of hemoglobin. Compared to the AA phenotype, the osmotic resistance of the red cells increased significantly in the AS phenotype and very significantly in the SS and SC phenotypes, indicating an increased erythropoiesis compensating the sickle cell hemolysis.

Conclusion: Hemoglobin S was associated with an excellent osmotic resistance of red blood cells and the rate of sickle cell formation depended on the hemoglobin phenotype. These two parameters can be used to monitor the efficacy of traditional remedies proposed to treat sickle cell anemia.

TUPE277

Who is using what from where? Contribution of private sectors in delivering reproductive and child health care services in India;
Abhishek Kumar¹, Mousumi Gogoi¹ | ¹Population Council, India

Introduction: Using four rounds of the Demographic and Health Survey, conducted in India between 1992-93 to 2015-16, this paper examined contribution of private health sectors in delivering reproductive (ante-natal, delivery care, and use of family planning services) and child health care (treatment of children for illness) in India. Bivariate analysis and binary logistic regression analyses are used to justify the said objective.

Results: Preliminary results indicate that contribution of private sectors in delivering key RCH services has increased over time. For instance, contribution of private sector in providing antenatal care had increased from 6% in 1992-93 to 18% in 2015-16, contribution of private sector institutional delivery increased from 8% in 1992-93 to 26% in 2015-16, and contribution of private sector in providing family planning services increased from 5% in 1992-93 to 12% in 2015-16. This contribution increased all segments of population; however, the rate of increase was higher among wealthiest and educated women, probably for getting better quality of health care services, less waiting time, and better inter-personal exchange between clients and services providers. A similar result is observed across the different states of the country – contribution of private health sector is better in states, where public health system lack human resource, infrastructure, and equipment. Despite, the growing contribution, private health sectors were associated with growing socioeconomic inequality in providing the services, particularly in institutional delivery. The salient findings of the study indicate that while taking appropriate steps to plan and monitor private sector contribution for RCH care services, continued and increased engagement of public providers in India is required for equal access of the RCH services among those accessing the services from the private sector.

TUPE278

Politicking with health care and its implication for the attainment of universal health coverage; **Aloysius Odi¹, Obinna Onwujekwe¹, Adaobi Ogbozor¹, Agwu Prince¹, Tochukwu Orjiakor¹ | ¹University of Nigeria, Nigeria**

Introduction: A high priority health policy goal in Nigeria is the achievement of the health-related Sustainable Development Goals (SDGs), especially Universal Health Coverage (UHC) that would ensure citizens access health services without experiencing financial difficulties by 2030. In Nigeria, the Primary Healthcare system (PHC) is recognised as the epi-centre of the efforts to achieve UHC. However, the nature of politics that reportedly exists within health centres may constrain the achievement of UHC. However, there is paucity of knowledge of the effects of politics at the PHC level on the achievement of UHC. The study examined the effects of how playing politics with the health centre creates structural and institutional barriers that prevents PHCs from contributing to the achievement of health goals such as UHC.

Methods: The study was carried out in eight PHC facilities in Enugu State, Nigeria. Data was collected using in-depth interviews and FGD from participants that included frontline health workers, services users, etc.

Results: It was found that politics (because the interest of powerful members of the community are considered) influences the siting of PHC facilities and some are sited in locations that constrain optimal access to health services. Also, the recruitment of health workers is in most cases not based on merit but on the principle of who-you-know thereby leading to the employment of incompetent hands. Moreover, some health workers can afford to be absent without sanctions because most times, they are protected by influential persons.

Conclusion: Politicking with health care leads to poor running of PHCs and it makes users access health services in far and costly places thereby making the goal of realizing UHC doubtful. To achieve UHC, governments at all levels should develop mechanisms that will lead to decrease in the corruptive and disruptive influences of politics at the PHC level.

TUPE279

Citizens demand for family planning commodity security- a case of Nairobi County, Kenya

George Ogola¹, Meshack Ian Acholla¹ | ¹Evidence for Action Mama Ye! Kenya

Issue: In April 2018, about 40% of all family planning methods were below the minimum stock required across Nairobi County. Consequently, women and girls were unable to access a wide choice of FP methods putting them at high risk of unintended pregnancies, increased pregnancy related complications, unsafe abortion and death. Further there was no clear avenue for citizens to engage and advocate for the availability of wide varieties of family planning commodities in facilities.

Description of intervention: Evidence for action Mama Ye launched a campaign dubbed #JazaShelves- fill up the shelves to call for family planning commodity security. The campaign used traditional and new media to call on decision makers to improve the timeliness of payment, ordering and supply of commodities respectively so as to improve the availability and choice of FP methods for citizens in Nairobi. Citizens were able to speak on the issue in radio and TV shows citing real evidence. We highlighted stories from community members and increased the level of dialogue on commodity security.

Lessons learnt: Engaging citizens in design, development and implementation of an advocacy campaign is effective as it creates ownership. Linking local voices with the media can provide a good platform to increase level of dialogue on family planning allowing them to speak out and hold decision makers accountable. It is important to link community voices with public governance processes which influence resource allocation.

Next step: Our plan is to scale up this campaign to other counties with high burden of maternal mortality. We therefore plan to replicate the innovative approach in a rural set up county to determine how the partnership approach will work in such set up. We plan to use this second campaign to document and share lessons for partners to use in conducting similar campaigns in other parts of Kenya.

TUPE280

Mediating “Street-Level Bureaucracy”: Increasing Access to Small Private Providers by Standardizing Health Policy on the Ground in Kenya; **Lauren Suchman | University of California, San Francisco**

Background: “Street-level bureaucracy” describes the process by which policies drafted at high levels of government are enacted, and sometimes re-formulated, through the practices of low-level bureaucrats working directly with the public. Re-formulations can have repercussions for public service provision. Although small private providers make up a large proportion of the healthcare landscape in low- or middle-income countries (LMICs), engaging these providers in government initiatives to achieve universal health coverage (UHC), such as social health insurance (SHI), is challenging. Drawing on interviews with private providers in Kenya, an LMIC country expanding SHI contracting, this paper analyzes a programmatic effort to increase private provider accreditation by mediating between providers and SHI officials.

Methods: This paper draws from a dataset of 126 interviews conducted with small private providers in Kenya. Data were collected as part of the qualitative evaluation of the African Health Markets for Equity (AHME) program; an initiative that aims to increase access to quality private providers for low-income clients in Kenya and Ghana. Semi-structured interviews were conducted with providers, both SHI- and non-SHI accredited, in 2013, 2015, and 2017. Interview data was supplemented with informal conversations with implementing partners and document review.

Results: Providers often lacked information on the SHI accreditation process, which sometimes discouraged them from applying. Those who received accreditation assistance from AHME said that the program helped them navigate the process by clarifying the process and requirements for accreditation, and advising them to help the providers prepare for assessment. Providers also noted the importance of having external help to “push” the accreditation process along.

Conclusions: Our findings are significant in the context of current challenges to SHI expansion and financing in Kenya. We draw lessons and guidance to project future challenges and opportunities for Kenya and countries in the region promoting this approach to UHC.

TUPE281

How social entrepreneurship breeds motivation and retention: innovative retention methods of community health workers (CHWs); **Kenneth Ogendo | Living Goods, Kenya**

Issues: Globally, the issue of motivation and retention of CHWs has become a formidable challenge to community health programming. Though researched, gaps still exist on how to sustain CHWs, especially when stipends are not anchored by government policies. Maintaining CHWs has posed a challenge to CHW programs, since iCCM requires a fully stocked kit and motivated human capital to look out for danger signs in the community. Programmatically, organizations have tackled this by incentivizing behaviors through providing a CHW medicine kit to motivate them but sustaining it has proved to be a challenge.

Description: The Living Goods approach has introduced a model that ties best practices from social entrepreneurship and performance-based incentives (PBIs). CHWs are thus motivated to achieving health seeking behavior targets based on these incentives and are stocked with essential medicines in sync with approved content guidelines. Our product portfolio is based on community health needs with an aim of solving simple public health problems and summarily preventing diseases. CHWs are trained to understand the nexus between health messages and the health products they are selling.

Lessons learnt: The combination of performance based incentives and the sale of health products to the public motivates CHWs to conduct the management of community cases in an environment where global aid is dwindling. The maintenance of medicine kits with medicines also keeps CHWs motivated. There is need to sustainably stock CHWs and finance them through incentives and sale of health products. This combination of efforts will motivate CHWs to visit more households and address health issues in low-resource settings.

Next steps: Research must be conducted in expanding the product portfolio and tweaking the PBI to assess the uptake of incentives against different variables and still ensure community work without commercializing it.

TUPE282

Use of health facility committees to improve health system governance and accountability: Institutionalization and Sustainability issues in Enugu State Nigeria; **Benjamin Uzochukwu | University of Nigeria, Nigeria**

Introduction: Facility Health Committees or Health Facility Committees which is voices of the community have been around for some years in Nigeria in various guises. It was originally designed for the Bamako Initiative's promotion of Drug Revolving Funds but has expanded to improve health system governance and social accountability. However, there are sustainability issues with the establishment of these committees especially in areas where they are supported by a donor programme. The objective of the study was to explore the institutionalization and sustainability of these committees beyond the life of a donor agency that had supported the initiative in Enugu State Nigeria.

Description: Desk review of documents and Key stakeholders' interviews (IDIs & FGDs). The basic assumption was that committees would be institutionalised and sustainable if they had strong internal relevance, viability and functionality; were well integrated into their relevant community and institutional environment; and were capable of renewal and reproduction without donor supported assistance.

Lessons learnt: Committees' internal viability key factors included Payments; Composition; Mentoring; LGA Role; Membership renewal; Threat of Ward Development Committees; Training and availability of Printed Reference Materials. The key factors that enhanced integration and replication included integration into the State, LGA and community Health System and Scaling up mechanism.

Next steps: Institutionalization of FHC is essential for sustainability and maintaining the positive impact of FHCs especially with their proposed role in the implementation of BHCPF and other health financing reforms in Nigeria. It should be pursued with institutions in the community, LGA and the State health system. A Formal agreement with the State health system is desirable.

TUPE283

Offre de services par et pour les Jeunes en SSR et de VIH aux jeunes les plus touchés par le VIH à Bujumbura afin d'atteindre les trois 90; **Ndayikeza Nadia | Réseau National des Jeunes vivant avec le VIH (RNJ+), Burundi**

Contexte: Le centre de jeunes de RNJ + à Bujumbura a été créé en mai 2014 en tant qu'espace sûr et accueillant. Les jeunes peuvent s'y rencontrer pour accéder à des informations, des conseils et des services en matière de santé sexuelle et de procréation, ainsi que de VIH. Depuis sa création plus de 55.000 jeunes ont été servis via le centre. Etant donné que le centre de jeunes est ouvert à tous les jeunes, les services s'adressent aux jeunes vivant avec le VIH, aux TS et aux jeunes LGBTI, pour assurer un suivi de qualité des services et une orientation efficace.

Description: Le centre est un espace géré par et pour les jeunes. Tout le personnel fournissant des services liés au VIH – conseils, discussions sur la santé, dépistage du VIH – appartiennent aux populations clés. En tant que tels, ils sont en mesure d'offrir le genre de services qu'ils aiment recevoir eux mêmes. Le centre a développé un partenariat avec les établissements de santé publics pour a) garantir aux jeunes l'accès à une gamme de services de santé sexuelle et reproductive et de désintoxication du VIH qui ne sont pas proposés au centre de jeunesse et b) assurer un suivi et un mentorat de qualité pour les jeunes prestataires de services du centre de jeunesse.

Leçon Apprise: Au cours des quatre dernières années, Le centre de jeunesse RNJ + a prouvé que: L'inclusion des jeunes des populations clé dans la prestation de services augmente l'accès aux services de leurs pairs Les jeunes préfèrent un environnement dans lequel ils peuvent se sentir libres de s'exprimer et de demander du service sans craindre un comportement critique. La fourniture de services intégrés VIH/SSR aux jeunes nécessite un environnement approprié La collaboration avec les jeunes dans la prestation de services peut réduire la peur de la discrimination dans l'accès aux services.

TUPE284

Mobile mobilization to activate communities for a People's National Health Insurance: Reflections on using mobile technology to facilitate community participation in reaching universal health coverage in South Africa; **Peter Benjamin¹, Shehnaz Munshi² | ¹Health Enabled, People's Health Movement, South Africa, ²University of the Witwatersrand, South Africa**

Introduction: The People's Health Movement South Africa (PHM-SA) has called on civil society, communities and allies in health struggles to participate in an innovative social accountability process using health technology that has the potential for mass mobilization and community action to realise health equity and the right to health for all in South Africa. A prominent example is PHM-SA's urgent campaign for a "People's NHI", which demands people-centred health services based on the principles of human rights, universality, social solidarity and social justice. PHM-SA is strategically using Bavuse! – An exciting new mobile health advocacy, communications and mobilisation tool to establish a broad social movement for people's health. Bavuse! could reach potentially thousands of people through SMS, USSD, email and social media. It is a single interactive easy to use platform and can be adapted to people's access to specific forms of technology (basic, smartphones, tablets, and computers). Bavuse! can serve as a strategic tool that changes health mobilization for the voiceless and 'unheard' through: Mobilizing constituencies in different geographical areas around health advocacy and social justice campaigns, help communities with self-organizing and information-sharing in remote and grassroots communities – at little or no cost to community members, Public education on health issues, Quick, large-scale information-sharing on developments happening on the ground.

We will give an overview of how we have been using Bavuse! To mobilize for a People's NHI Campaign and for increasing people's voice about health issues – through initiating discussions, organizing and bringing change. Bavuse! Provides options to organize campaigns, call meetings, have votes, run polls, and integrate with petitions hosted through online platform Amandla.mobi.

TUPE285

Health system governance factors affecting implementation of free healthcare policies: qualitative insights from a Nigerian state.

Daniel Ogbuabor¹, Obinna Onwujekwe² | ¹Government of Enugu State, Nigeria, ²University of Nigeria, Nigeria

Background: The study provides evidence of the governance factors affecting implementation of free maternal and child healthcare programme (FMCHP) in Enugu state, Nigeria.

Methods: The study was conducted in Enugu State, Nigeria, using a qualitative case study design.

Semi-structured interviews were conducted with 44 participants (16 policymakers, 16 providers and 12 health facility committee leaders) purposively selected from the Ministry of Health and the two health districts. Data collection and analysis were guided by Siddiqi and colleagues' health system governance framework using a framework approach.

Results: The key findings show that supportive governance practices included existence of funding plan, revision of contribution rules, existence of health facility committees, systems to verify questionable provider claims, pay providers directly for services, compel providers to procure drugs centrally and track transfer of funds to providers. However, strategic vision was limited by low public spending. Participation and consensus orientation among actors was low. Transparency was constrained by recurrent unauthorised expenditure and absence of expenditure caps from FMCHP pool. Benefits and obligations to users were not transparent. Rule of law was limited by absence of FMCHP law and delays in provider payment. Unclear resource allocation procedure hindered responsiveness of FMCHP. Rural urban disparities in staff distribution and exclusion of some target beneficiaries hampered equity. Weak decentralisation, insufficient workforce, limited supervision and uncertain reimbursement hindered effectiveness and efficiency. Social accountability is weak. Intelligence and information are constrained by paper-based system and poor use of evidence in planning. Rationing of free services by providers and users' non-adherence to primary gate-keeping role hindered ethics.

Conclusion: Weak governance limits potential of FMCHP to contribute towards universal health coverage. Appropriate governance model for free healthcare programmes in low-resource countries must pay attention to the context-specific institutional designs and organizational practices that underpin revenue raising, pooling and purchasing in free healthcare policies.

TUPE286

Experiences of local nurses involved in experimental research during the West African Ebola crisis | **David Nguyen¹, Antonia Arnaert¹, John Pringle¹** | ¹Ingram School of Nursing, McGill University, Canada

Introduction: The West African Ebola Crisis from 2014 to 2016 was the largest Ebola Virus Disease outbreak resulting in the deaths of at least 11,325 individuals. With the high fatality rate and the absence of effective drugs or vaccines against this virus, the World Health Organization approved the use of trial vaccines and other interventions which had promising laboratory results during this public health crisis. Nurses who were the frontline healthcare providers caring for infected patients in an attempt of controlling the outbreak, were approached to participate in various experimental studies due to their high-risk of infection. Little is evidence is available concerning their experiences in participating in those studies.

Purpose: Therefore, this qualitative descriptive study aims to explore the experiences of local nurses involved in experimental research during the West African Ebola crisis.

Method: A purposive sample of 13 nurses with an average age of 39 years of age, were recruited in Sierra Leone (n=7), Guinea (n=5) and Liberia (n=1); the three countries most affected. In order to be eligible, participants needed to be licensed nurses, be fluent in English or French and have participated in at least one Ebola research study. Semi structured interviews (in-person and phone) were conducted. After transcribing these interviews, themes were identified using thematic analysis.

Results: Nurses have joined four studies of which 5 participated in Experimental Vaccine, 5 in observational Study, 3 in Experimental Plasma, and 1 in Experimental Drug. Findings revealed that all nurses had a dilemma in their decision-making process to participate, which was influenced by family members' opinions, colleagues' experiences, and trust in local researchers and faith in God.

Conclusion: Findings will add to the current body of knowledge to improve the information sharing in participating in experimental research for future outbreaks.

TUPE287

Role of private health sector in scaling up family planning uptake in Western Kenya: A case of KMET Huduma Poa Social Franchise;
Okoth Oscar | Kisumu Medical and Education Trust, Kenya

Issues: Strategies to harness the private sector to advance public health goals is extremely diverse. There is limited experience in designing interventions to engage this sector to forge meaningful Public -Private Partnerships to accelerate access to health services.

Description: Kisumu Medical and Education Trust with support from USAID implement a program aimed at harnessing the efforts of private health providers to increase access to family planning services through social franchising. The franchise strengthens capacity of providers through training, mentorship and support supervision. For demand creation, the capacity of CHV is strengthened through training on behavior change and communication, and equipped with materials for mobilization. To strengthen partnership and oversight of private facilities, MOH is engaged for commodity supply, supportive supervision and reporting.

Lessons Learnt: Over the five-year period a total of 110 clinics have joined the network with a geographical distribution of 70% in rural and 30% urban. Cumulatively 169,254 women have been served with various FP methods. Use of Long Acting and Reversible Contraceptive has gradually increased over the years with a utility rate of 2.5 % in 2012 to 48.4 % in 2017. Injection remains the most preferred method, however through behavior change and communication, the utility rate dropped from 79% in 2012 down to 50% in 2017.

Recommendations: Partnership, and oversight of private health sector offers a great opportunity for synergy and complements efforts in attaining public health goals. Male involvement is key in scaling up Family planning. This approach has demonstrated the potential role of the private sector in advancing Sustainable Development Goal 3 and the need for engagement in program design.

TUPE288

Health system responsiveness for improved uptake of skilled birth attendance among pastoral communities of Ethiopia; evidence from baseline data of RCT; **Nejimu Biza | Samara University, Ethiopia**

Background: Health system responsiveness (HSR) is the non-health enhancing aspect of care relating to the environment and the way healthcare is provided to clients. It relates specifically to the interactional dimensions of patient experience rather than to health-related or technical aspects of care quality. It contributes to enhanced utilization of delivery services, especially in settings where people might choose not to use available services because they feel that they are not treated according to their inherent expectations. It is measured on eight domains of patient reported experiences: dignity, autonomy, choice, communication, confidentiality, prompt attention, quality of basic amenities, and social support. This study is intended to evaluate degree of Skilled Birth Care responsiveness and associated factors among women in pastoral communities of Ethiopia.

Methods: Institution linked community based cross-sectional study design was employed to assess the responsiveness of intrapartum care received by pastoral mothers in the last six months of delivery. Self-modified and extensively contextualized (WHO) responsiveness measurement tool was used to collect data on eight responsiveness domains. Robust method called, Canonical correlation analysis (CCA) was used to assess multivariate sets of variables effect on responsiveness level of skilled delivery services.

Result: A total of 280 women were interviewed with age range of 15 to 40 years. The mothers surveyed generally perceived pastoral SBA to be highly unresponsive with overall responsiveness level of unsatisfactory (4.70 out of a maximum 10.0). The three lowest scoring domains were dignity, choice of provider and social support. Major determinant set of factors affecting responsiveness of delivery care were age, income, availability of functional maternity waiting homes, being attended by female midwives and perceived cultural acceptable care.

TUPE289

Trends in health disparities in Tanzania – A 25 years perspectives; **Emmanuel Maliti | Tanzania**

Background: Global attempts to monitor health disparities are gaining pace mostly because of the misplaced assumption that by focusing on diseases of the poor (tuberculosis, malaria, diarrhoea etc.) health programmes would automatically reach the poorest (Victora 2008).

Methods: This study uses the 5 rounds of the Demographic and Health Surveys (DHS) covering a period of 25-years. It applied the Gwatkin's (2012) and WHO's (2003) methodology in measuring health disparities in Tanzania across the wealth, rural-urban and gender dimension for the 8 health indicators of antenatal care, neo and post-natal mortality, infant and under-5 mortality, births attended by skilled health personnel, stunting, wasting and underweight.

Results: Results shows that rural-urban disparity has been on the decline for postneonatal mortality, and stunting rates, eliminated for wasting and births attended by skilled health personnel, but on the rise for the antenatal care, neonatal mortality, infant mortality, and underweight. Wealth based disparity is on the decline for post-neonatal mortality, eliminated for births attended by skilled health personnel, but on the rise for the neo-natal mortality, and immunisation. Interestingly, the infant mortality rate for poorest households has significantly declined more than the case with wealthy households, and by 2015, the infant mortality rate for poorest households is lower than for wealthy HHs. Gender disparity is observed to have been on the decline for the stunting rates, eliminated for children immunisation, but on the rise for the wasting indicator.

TUPE290

Integrating HIV treatment with primary care outpatient services improves retention to HIV care for private health facilities in Coastal Kenya; **Mohammed Mwakazi | Goldstar, Kenya**

Background: Kenya has an average prevalence rate of 5.4% with about 1.6 million people live with HIV infection. It is one of the six HIV high burden countries in Africa. Retention to care is required for optimal clinical outcomes in patients with HIV infections. Integration of HIV treatment services with primary care outpatient services has been argued to improve effectiveness, efficiency and equity. However, there is limited evidence based information regarding the benefits and the depth of integration beside sexual reproductive health and tuberculosis. In 2015, 81% of people initiated on care were still in care after 12 months. Between 2015 and 2018, the Health Communication and Marketing Program supported scaling up a model of integrated HIV services to outpatient departments (OPD) for 56 Tunza and Goldstar network franchise health facilities. The paper examines the effects of the integrated model on the organization of the service delivery and clients' retention to HIV care to improve patient outcome.

Methods: We conducted retrospective cohort study in 56 private health service providers over a period of three years looking at the client retention into care in Coastal Kenya. The data generated in line with the data collection tools by the ministry of health. Primary data aggregated from the antiretroviral (ART) cohort register and the patient enrolment register (treatment preparation and pre ART register). The data was analyzed and key comparison made with the national data to inform overall analysis.

Results: Implementation of the integrated model improve HIV retention to care with an average of 85% retention rate to ART after 12 months compared to the 80% national data. The retention rate after 24 months was 80% and after 36 months was 71%. Other organizational advantages were identified including efficient use of minimal staff and clinic space, equitably delivery of care to both HIV and non HIV clients, reduction of stigma and discrimination and improved teamwork. The integration did not solve the issue of shortage of staff and high rate of staff turnover, which limit the efficacy of the model.

Conclusion: While private health facilities have less strategies for HIV retention, the model demonstrated potential for retaining clients in private clinics through the use of service integration at the outpatient department. It further demonstrated potential in strengthening organizational aspect of HIV management in private health facilities

TUPE291

Analysis behind service delivery protest: a case of Bolobedu South in Mopani District, Greater Tzaneen municipality, Limpopo Province, South Africa; **John Mamokhere | University of Limpopo, South Africa**

Background: The main purpose of the article is to explore reasons behind service delivery protests at Bolobedu South, Mopani district, Greater Tzaneen Municipality at Limpopo province.

The aim is to establish reasons why people protest, although it is within their rights to protest peacefully. The study also intended to investigate whether these people really protest due to poor or sufficient service delivery or not. It is quite obvious that some people take advantage of the circumstance to their best interests rather than a merely protest behind better service delivery such as clean water, infrastructure, shelter and electricity.

Methods: data analysis using journal articles, statsSA database, literature review, IDP policy, Regulations and Acts, online media such as The Citizen. The data was thoroughly analyzed.

Results: The study found the underlying reasons behind service delivery as unemployment, poverty and lack of access to information and corruption and other unethical practices.

Conclusion and Recommendation: The study recommends peaceful and lawful protests among community protesters and municipality representatives. Communication must also be fostered among the parties involved to avoid issues such as violence and damaging of properties during strike. In the case of corruption behavior, the study recommends that firms which are found guilty of misconduct and misappropriation must be blacklisted and also must face criminal charges in terms of the Prevention and Combating of Corruption Act 12 of 2004.

Keywords: Service delivery, protest, Corruption, Nepotism, Unemployment, Poverty, Accountability.

TUPE292

A community midwifery model in provision of maternal and newborn health care during healthcare workers' industrial action: Busia County; **Shikuku Duncan | Save the Children International, Kenya**

Background: Skilled birth attendance is an acknowledged strategy for reducing maternal deaths. Access to skilled care during pregnancy and birth is lowest for the poor, who carry the burden of maternal and neonatal morbidity and mortality. Evidence shows that community – based interventions improve antenatal care coverage and maternal and neonatal health outcomes. This paper evaluates the effect of implementation of a community midwifery model on skilled attendance during pregnancy and childbirth in 'hard – to – reach' parts of Busia.

Methods: This was a cross – sectional review of project data for 10 registered community midwives (CMs) between two 3 – months interval periods. Nationwide healthcare workers strike paralyzed service delivery in health facilities during the period Dec 2015 – Feb 2016 (3 months) and June – Oct 2017 (5 months). Community sensitizations, linkage of CMs with the community health volunteers (CHVs) & birth companions to create demand and community – based referrals by CHVs to increase access for community midwifery services; supportive supervision & mentorship on midwifery skills were conducted and strengthened during the strike period 2. Service attendance for first and fourth ANC, delivery and postpartum care at the CMs were reviewed. Means and differences in means between the two periods were compared using paired t – tests.

Results: The mean attendance for 1st and 4th ANC, deliveries and postnatal care for strike periods 1 and 2 were: 3.3 vs 29.8, 2.6 vs 21.2, 2.7 vs 39.3 and 4.8 vs 30.7 respectively. Differences in means between two periods showed statistically significant increases in all the four services provided: 1st ANC (1.1 vs 5.96, P=0.0101), 4th ANC (0.87 vs 4.24, P=0.0167), deliveries (0.9 vs 7.86, P=0.0044) and postnatal care (1.6 vs 6.14, P=0.0387).

Conclusion: Supporting a community midwifery model can improve the skilled attendance in 'hard-to-reach' areas.

TUPE293

The effect of leadership style on employee performance among nongovernmental organization employees in Ethiopia: the case of Amref Health Africa in Ethiopia; **Abdissa Agal, Abera Demsis² | ¹Amref Health Africa, Ethiopia, ²Debre Markos University, Ethiopia**

Background

Leadership is very important in shaping and sustaining the current or future condition of an organization. It is considered as an interpersonal process through which a leader directs the activities of individuals or groups towards the purposeful pursuance of given objectives within a particular organization by means of common understanding. The objective of this study is to determine the leadership styles that Amref Health Africa in Ethiopia follows and its effect on employee performance.

Methods: A cross-sectional study design was conducted in December 2017 by Amref Health Africa in Ethiopia. A sample 98 respondents were randomly selected and data collected from 87 (88.78%) respondents. The data was entered in Microsoft Excel 2007 and exported to Stata 13 for descriptive and inferential analysis

Results: The level of leadership style that exists in Amref Health Africa in Ethiopia is not conclusive, a transformational leadership style shadowing transactional leadership style. The study found the leadership style, in general, significantly and positively affects employee performance ($r = 0.28, p = 0.002$). Among the leadership styles, the transformational leadership style has a statistically significant effect on employee performance, ($r = 0.24, p = 0.031$). The study found that education ($r = 0.24, p = 0.026$) and salary ($r = -0.14, p = 0.035$) have a statistically significant association with employee performance. The level of employee performance in the organization is 3.43, which can be considered inadequate.

Conclusions and Recommendations: The level of transformational and transactional leadership existing in Amref Health Africa in Ethiopia is low. Amref Health Africa in Ethiopia should increase the level of capacity of its leaders in transformational leadership to ensure improved employee performance.

Keywords: Leadership, Leadership Style, Employee Performance, Amref Health Africa

TUPE294

Chemical composition and in vitro antibacterial, antioxidant and anti-inflammatory efficiency of essential oil of *Greenwayodendron suaveolens* (Engl. & Diels) Verdc against bacterial strains responsible of pulmonary diseases; **Moni Ndedi Esther Del Florence¹, Kom Wayoue Christelle², Tchamgoue Deutou Armelle², Nyegue Maximilienne Ascension³, Etoa François-Xavier¹, Betote Diboué Patrick Hervé² | ¹University of Yaounde, ²Institute of Medical Research and Medicinal Plants Studies, ³University of Montpellier**

Background: This study was undertaken to determine the chemical composition and evaluate the in vitro anti-bacterial, antioxidant and anti-inflammatory activities of essential oil (EO) of *Greenwayodendron suaveolens* against bacterial strains responsible of pulmonary diseases.

Methods: The determination of the chemical composition of EO was carried out by Gas Chromatography coupled to Flame Ionization Detector (GC/FID) and Gas Chromatography coupled to Mass Spectrometry (GC/MS) simultaneously. The anti-bacterial susceptibility and inhibitory parameters of EO on *Klebsiella pneumoniae*, *Streptococcus pneumoniae*, *Mycobacterium smegmatis*, *M. fortuitum* and *M. tuberculosis* growth were evaluated using the agar diffusion and micro-dilution methods. The antioxidant activity of EO was highlighted using two methods: DPPH and FRAP. The anti-inflammatory effect of EO was evaluated according in vitro Bovine serum albumin (BSA) denaturation and Proteinase Inhibitory Action assays.

Results: The results obtained show the presence of epi-cubebol, cadalene, -humulene and 14-hydroxy-(Z)-caryophyllene with respectively proportions of 15.51%, 13.77%, 7.87% and 7.31 % as major compounds in *G. suaveolens* EO. The inhibitory parameters of EO has shown anti-bacterial activity with the minimum inhibitory concentrations (MICs) ranging from 14.25 – 912 mg/mL for the bacterial strains tested. The *G. suaveolens* has shown the free radical scavenging activity ($0.00129 \pm 0.00001a$ g/mg) similar to the ascorbic acid value ($0.00125 \pm 0.00002a$ g/mg) and the highest reducing power ($542.33 \pm 16.51a$ mg EAA/g DW). EO of *G. suaveolens* has shown a good anti-inflammatory activity through bovine serum albumin denaturation and proteinase inhibitory action with the inhibitory concentration 50 (IC₅₀) of $183.30 \pm 3.15b$ mg/mL and $33.62 \pm 0.95a$ mg/mL respectively.

Conclusions and Recommendations: These results suggest that *G. suaveolens* essential oil is efficient against bacterial strains and it could be used by the population to treat pulmonary diseases.

TUPE295

Facilitators and barriers to birth preparedness and complication readiness in rural Rwanda among community health workers and community members: a qualitative study; **Richard Kalisa | Ruhengeri Hospital, Rwanda**

Background: Birth preparedness and complication readiness (BP/CR) comprise a strategy to make women plan for birth and encourage them to seek professional care in order to reduce poor pregnancy outcome. The study sought to understand the facilitators and barriers to BP/CR among community health workers (CHWs) and community members in rural Rwanda.

Methods: Eight focus group discussions were conducted with 88 participants comprising of CHWs, elderly women aged 45–68 and men aged 18–59, as well as two key informant interviews in Musanze district, Rwanda, between November and December 2015. Qualitative data were digitally recorded, transcribed verbatim and analysed using content analysis.

Results: Participants perceived the importance of family assistance, medical insurance and attending antenatal care (ANC) to facilitate BP/CR and enhance professional care at birth. CHWs reinforced BP/CR messages by SMS alerts and during community gatherings. 'Ubudehe (collective action to combat poverty)' was known as a tool to identify the poorest families in need of government aid to pay for medical care. Disrespect and abuse of women during labor by health workers were perceived as important barriers to access professional care, as well as conflicting health policies such as user fees for ANC and family planning services, and imposing fines on women giving birth outside health facilities.

Conclusion and Recommendations: CHWs, ANC and medical insurance are perceived to be important facilitators of BP/CR. Respectful care is paramount for improved maternal health. There is a need for addressing inconsistent health policies hindering the intention to access professional care

TUPE296

What do we know about the healthcare costs of extreme heat exposure? A comprehensive literature review; **Berhanu Wondmagegn¹, Jianjun Xiang¹, Susan Williams¹, Dino Pisaniello¹, Peng Bi² | ¹The University of Adelaide, Australia**

Background: Community exposure to extreme heat and heatwaves leads to a range of heat-related illnesses and exacerbation of pre-existing health conditions. Heat-related health problems have economic consequences through incurred medical treatment and health costs; loss of work productivity; and welfare changes. A projected increase in temperature may lead to even greater demand, but at present the costs of heat-related healthcare service utilization are unclear. This study aims to review the literature on heat-attributable healthcare costs associated with ambient heat exposures.

Method: Three databases namely: PubMed, Scopus, and Embase were used to search relevant literature from inception to December 2017, and limited to English language. Peer-reviewed and grey literature which examined the effects of heat on health and medical costs were initially included, and the yield supplemented with relevant papers from reference lists, and other extension approaches. Articles on indoor heat exposure; and cold temperature were excluded. After the screening, ten papers were included for final review.

Results: Only four studies projected future health and economic costs of the changing climate. Studies showed that females, the elderly, and low-income groups had the highest healthcare costs, across a range of health services. Available studies confirmed that future excess healthcare costs have been projected to increase significantly compared to the reference period. Even though studies quantified the healthcare costs, none of the findings examined the temperature-cost relationship. In general, the healthcare costs of heat extremes are significant but have been poorly investigated in developed countries and not reported in developing countries where the largest vulnerable population may reside.

Conclusion: The review suggests a need to systematically examine heat-related costs for our healthcare system in the context of climate change in order to plan prevention actions and allocate resources. This finding has implications for policy makers, healthcare providers, emergency management teams and other relevant stakeholders.

TUPE297

Youth led Initiatives on one to one engagement on advocacy; **Malcom X Andrew | Maisha Youth, Kenya**

Issues: Adolescent and Youth Populations (AYP's) challenge continues to be limited access to youth friendly services, lack of policies that speak to their needs, and lack of representation in high level policy making dialogues for adolescents and young people to articulate their HIV/SRHR needs. For better service provision it is necessary to modify health policies, systems and environment which young people engage in to have more inclusive policies for AYP's. The case is a study of Unified and amplified voices in engagement with young people from various parts of the country, youth led organizations in advocating for their space in the policy making stages. The key objective of the project is to advocate for meaningful engagement of adolescents and young people to take up leadership positions, to be included in high level policy meetings for responsive programming, and champion for integration of other services such as (entrepreneurship, entertainment etc) together with HIV Services.

Description: During the Maisha Conference, Maisha Youth was mandated to organize a youth pre-conference by the National AIDs Control Council (NACC). The whole process was given to the young people from planning to execution which turned out to be very successful. This was a clear example of the benefits and rewards of meaningful youth engagement. Similarly, the event resulted in increase in other youth networks in different organizations championing for Meaningful youth engagement in their spaces.

Lesson Learnt: When young people are given leadership opportunities and meaningfully engaged, among-st themselves they are able to work very well and have a great impact on peer to peer approach. However, success is also guaranteed if there is technical support from the implementing partners, donors and professions.

Recommendation: Capacity building on Leadership, advocacy, and meaningful engagement (Policy engagement) in HIV/Srhr among AYP's is key in decision making process. Guidance on standard definition of meaningful engagement of adolescent and youth in advocacy and policy is needed.

TUPE298

End Term Evaluation Maternal, Newborn, Child Health and HIV and AIDS project among the residents of informal settlements in Lang'ata, Kibra and Dagoretti Sub-Counties in Nairobi County, Kenya; **Lennah Kanyangi | Amref Health Africa, Kenya**

Background: The inaccessibility and poor quality of healthcare in urban slums, coupled with the low take up rate of health services result in many adverse effects such as HIV/AIDS prevalence and poor Maternal New-born and Child Health outcomes. Amref Health Africa in Kenya partnered with the the County Government of Nairobi and the local community to implement an integrated maternal, new born and child health and HIV/AIDs project for 3 years in Kibera and Dagoretti Sub counties. The study sought to assess the project outcomes and performance on maternal, new-born, child health and HIV and AIDS among residents of Kibra and Dagoretti sub counties, Nairobi County.

Methods: A cross sectional study design with use of mix methods was adopted. The study used both quantitative and qualitative research methods. Data collection was carried out using structured questionnaires, FGDs and KII guides. SPSS was used for analyzing Quantitative data while Qualitative data analysis relied on Content & Triangulation Analysis to identify key thematic areas.

Results: The percentage of pregnant women attending 4 ANC visits increased from 47.4% at baseline to 67.5% at the end of the project. The proportion of mothers who delivered in a health facility increased from 94.2% at baseline to 96.3% at the end of the project. Proportion of HIV positive patients adhering to their treatment and clinic appointments was 44% an improvement from 21% at baseline. The percentage of health facilities providing Basic Emergency Obstetric and New-born care increased from 0% at start of the project to 100% at end of project term.

Conclusion: Access and utilization of MNCH services improved as demonstrated by achievement of the project's key performance indicators. The design and implementation promoted synergies, avoided duplications and resource conflicts. Sustainability strategies were appropriate and sufficiently implemented from project inception.

TUPE299

The prevention and control of seasonal outbreak of diarrhoea in flood prone Chiga Area, in Kisumu East Sub-County, Kenya;
Redemptah Yeda | Jaramogi Oginga Odinga University of Science and Technology, Kenya

Background: Diarrhoea is preventable and treatable in children by breastfeeding, increased fluids, and early recognition of dehydration. Flood prone areas have high incidence of diarrhoea. The purpose of this study was to assess the prevention and control measures of seasonal outbreak of diarrhoea in flood prone Chiga area, in Kisumu East Sub County.

Methods: Retrospective health records of clinically-diagnosed and treated diarrhoea cases in the period of 2012 to 2016 were extracted from the registers in Chiga Health Centre and then stored electronically in an excel format. Monthly average rainfall for the period of 2012 to 2016 were extracted from Kisumu Weather station and stored electronically in an excel format.

Results: There were 774 confirmed diarrhoea cases at Chiga Health Centre between 2012 and 2016.

More than two-thirds (67.3%) of the diarrhoea cases were adults (≥ 18 years). Older children (6-12 years) made up 22.5% of the patients with diarrhoea while only 10.2% were adolescents (13-17 years). The mean age for adults' patients was 38.7 years old (SD=16.52) and the median age was 35.0 years (IQR: 25.0-49.0). In addition, the mean age for older children was 8.7 years (SD= 1.94) and median age was 9 years (IQR: 7.0 - 10.0). For the adolescent group, the mean age was 15.2 years (SD=1.54), median age (15.0, IQR: 14.0 - 17.0). Also, observed was that more than half (59.9%) of the patients with diarrhoea were females compared to 40.1% who were males. Diarrhoea followed a seasonal pattern with peaks from January-March, in May, and around October. Two of these peaks fell towards the end of the local rainy seasons of March-May.

Conclusions: There was more number of diarrhoea cases in adults than either older children or adolescents. Adolescents registered the least number of cases of diarrhoea. This suggests a possible differential exposure to diarrhoeal causing agent.

TUPE300

Beneficiary targeting using the EquityTool and community health workers; **Nirali Chakraborty¹, Taylor Capizola² | ¹Metrics for Management, USA, ²Living Goods, USA**

Issues: Metrics for Management (M4M) and Living Goods (LG) are committed to providing equitable community health solutions in the world's most vulnerable areas. In Kenya, many pregnant women and children die from common, yet treatable illnesses. These mortality rates are worse in areas of poverty that lack proper access to care. While there is significant research in health and vulnerable populations, measuring socioeconomic equity remains challenging.

Description: Developed by M4M, the EquityTool is an easy-to-use, validated tool to assess equity. The tool applies a simplified Demographic and Health Surveys wealth index. LG-supported community health workers (CHWs) in Kenya embedded the tool in a mobile health application to examine and target the most vulnerable households.

Lessons learn: CHWs surveyed over 80,000 households using the EquityTool. Findings showed 44% of households LG served were in the lowest two wealth quintiles, outlining the most at-risk households served. By providing services to the most vulnerable, we found that 70% of Living Goods clients in the poorest wealth quintile delivered in health facilities as compared to 30% of the poorest, nationally. This tool was successful in highlighting how to identify and prioritize households of need in vulnerable communities.

Recommendations: The ability to have validated equity data within a mobile app is powerful in targeting specific household by CHWs. When combined with other meaningful data, it becomes possible to understand not just who we serve, but how we should serve them to maximize impact in the field. Monitoring health equity and continual tool optimization will help maximize health outcomes, equity gains, and system responsiveness in health programs.

TUPE301

High prevalence of onchocerciasis associated epilepsy in villages in Maridi County, Republic of South Sudan; **Robert Colebunders¹, Jane Y Carter², Peter Claver Olore³, Kai Puok⁴, Samit Bhattacharyya⁵, Sonia Menon¹, Gasim Abd-Elfarag⁶, Morrish Ojok³, Richard Lako⁷, Makoy Yibi Logora⁷** | ¹University of Antwerp, ²Amref International University, ³Amref Health Africa in South Sudan, ⁴Maridi Health Sciences Institute, ⁵Shiv Nadar University, ⁶University of Amsterdam, ⁷Ministry of Health, South Sudan

Background: High numbers of persons with nodding syndrome and other forms of epilepsy were reported in onchocerciasis endemic regions of South Sudan but an epilepsy prevalence survey had never been performed.

Methods: In May 2018, a door-to-door household survey was conducted in 8 study sites encompassing 44 villages in an onchocerciasis endemic area in Maridi County. Onchocerciasis-associated epilepsy (OAE) is defined as ≥ 2 seizures without any obvious cause, starting between the ages of 3–18 years in previously healthy persons who had resided for at least 3 years in an onchocerciasis endemic area.

Results: A total of 2,511 households were surveyed, corresponding to 17,652 individuals. A five question epilepsy screening questionnaire identified 799 persons with suspected epilepsy (4.5%); epilepsy was confirmed in 736 (96.1%) of the 766 seen by a clinical officer or medical doctor. Adding 38 persons not confirmed but with a positive answer to a combination of the screening questions, 774 (4.4%) persons had epilepsy. Epilepsy prevalence was highest in the 11–20 age group (10.5%). The median age at first seizure was 10 years (IQR: 7–14); 66 persons with epilepsy (PWE) developed their first seizures in the year preceding the survey (annual incidence=373.9/100.000). OAE criteria were met by 85.2% of PWE. In 45.4% there was a history of nodding seizures. Neurocysticercosis cannot explain the high epilepsy prevalence due to no pigs in the area. Independent risk factors for epilepsy included male gender, belonging to a “permanent household”, belonging to a farming family, and living in a village bordering the Maridi River. Only 7,209 (40.8%) of the total population received ivermectin in 2017.

Conclusions and recommendations: Urgent action is needed to prevent children in Maridi County from developing OAE by strengthening the onchocerciasis elimination program

TUPE302

Prevalence of Hepatitis B Virus infection among taxi drivers in Mampong Municipality of the Ashanti Region, Ghana; **Kyei Baffour Samuel¹, Portia Owusu¹, Livingstone Nyamedzi¹, Denis Dekugmen Yar¹ | ¹University of Education, Ghana**

Background: The global burden of Hepatitis B viral (HBV) infection in Sub-Saharan Africa (SSA) in 2017 was 6.1% and could drawback the Sustainable Development Goal three (SDG3) in SSA .This is occasioned by the lack of access to screening opportunities for HBV infection amongst the vulnerable groups in SSA. This study assessed the prevalence and risk factors for HBV infection among taxi drivers in Mampong Municipality of the Ashanti Region, Ghana.

Methods: A cross-sectional study was conducted to assess the burden of HBV infection amongst male taxi drivers aged 20-70 years in Mampong municipality. A cluster sampling was employed to select 3 registered taxi stations while 109 respondents were randomly selected for the study. After obtaining an informed consent, using a structured questionnaire, data was collected from respondents via face-to-face interview. Blood samples were taken and examined (One Step Strip Style HbsAg Rapid Screen Test) for the presence of hepatitis B antigen.

Results: Overall prevalence of HBV infection was 10.1% amongst the taxi drivers, 84.4% and 91.7% of them have never been screened and vaccinated for HBV respectively. Of the 109 respondents, 69.7% and 28.4% had 1-10 and ≥ 11 total sexual partners respectively while 80.7% never used a condom during sex. Meanwhile, 15.6% and 36.7% shared shaving stick and share razor blade with others respectively.

Conclusions and Recommendations: The prevalence rate of HBV infection amongst taxi drivers in this study is higher compared to that of SSA. This increase could be attributed to the high risks factors and lack of awareness, access to screening and vaccination. Thus, a nationwide screening and vaccination is highly recommended.

TUPE303

Population health and burden of disease profile in Uganda from 1990 to 2015; **Khomotso Maimela | University of Pretoria School of Public Health, South Africa**

Background: Uganda like all countries globally aims to attain the United Nations (UN) sustainable development goals (SDGs) for health and decrease premature deaths due to communicable (CDs) and non-communicable disease (NCDs) by 40% by the year 2030. The study aimed at describing the trends in population health and disease burden in Uganda in the past 26 years and show the pattern of health transition across the country through 1990 to 2015.

Method: A cross-sectional study design was used in the study of the burden of disease in Uganda from 1990 to 2015. Secondary data was used through complete sampling from the Institute for Health Metrics and Evaluation (IHME) system and analysed through SAS 9.4.

The GBD metrics used were: Disability-adjusted life years (DALYS), YLLs (Years of Life Lost), YLDs (Years of Life Lost due to disability), HALE (Health Adjusted Life Expectancy), Age-Standardized Death Rate (ASD).

Results: Life expectancy (LE) over the 26-year period increased by 25% from 49.10 in 1990 to 61.59 in 2015; and the total causes of DALY's declined by 55% for both sexes. The total causes of YLD declined by 15% (from 104 33.96 to 8 892.59); and the YLL's declined by 59% (102 596 in 1990, and 42 400 in 2015) for both sexes. The total rate of all-cause mortality for females of reproductive age (15-49 years) decreased by 56% over the same time period.

Conclusion: Great strides have been made in accessing health services in Uganda. Preventative strategies and policies though need strengthening to combat the burden of disease to further reduce morbidity and mortality rates in Uganda.

Keywords: Uganda, burden of disease, health profile, health trends.

TUPE304

Trends in population health and burden of disease in Mozambique from 1990 – 2015; **Dan Lole | University of Pretoria, South Africa**

Background: Mozambique has made significant progress in some of the health indicators. However, some health indicators are lagging so as to achieve the UN sustainable development goals (SDGs). This study sought to describe the burden of disease in Mozambique over a 25-year period and develop recommendations for policy.

Methods: Secondary data from 1990-2015 Global Burden of Disease (cross-sectional study design) obtained from the Institute for Health Metrics and Evaluation (IHME) was analysed. GBD standard of measurements with emphasis on metrics such as Disability-adjusted life years (DALYs), Years of Life Lost (YLLs), Years Lived with Disability (YLDs), Health-Adjusted Life Expectancy (HALE) and Age-Standardised Death rate (ASD), were used.

Results: Leading causes of death in 2015 for all ages were HIV/AIDS (24%), Malaria (15%) and Lower Respiratory Infections (6%). Life expectancy increased between 1990 and 2015 from 52.8 to 62.9 years in females and 48.5 to 57.0 years in males. Malnutrition and unsafe sex have constantly been leading risk factors to DALYs between 2005 and 2015, with a percentage change of -25.7% and -21.6% respectively. Non-communicable diseases featured frequently in the top 10 causes of YLDs. Skin Diseases increased by 42.5% and lower back & neck pain increased by 29.0%.

Conclusion and recommendations: Although communicable diseases are the most important contributors for the morbidity and mortality burden, NCD are becoming more frequent, accounting for an estimated fifth of all deaths in Mozambique. A combination of interventions targeting the high prevalence diseases will be crucial to deal with the undesirable shifts in the burden of diseases. However, NCD risk factors cannot be dissociated from the social profile of the population. Therefore, policies in meeting the social determinants of health such as housing, safe water and sanitation, employment, access to education and health care should be a priority.

TUPE305

Sharp Sexually Transmitted Infection rise among Men who have Sex with Men prep users in Kiambu County, Kenya: a prospective cohort study; **Eric Mwanzia | Mamboleo Peer Empowerment Group, Kenya**

Background: AMen who have sex with men(MSM) led organization was established in 2010 and legally registered as Mamboleo Peer Empowerment Group in 2014. It engages members through advocating for Human Rights, promotes sexual reproductive health, referrals for security interventions, psychosocial support and social economic empowerment of MSM and Lesbian, Gay, bisexual, transgender, and intersex (LGBTI) community. MPEG partnered with Jilinde project in January 2018 for demand creation on oral prep among MSM in Kiambu, Kenya.n

Objective: Target of 200 MSM and retain 50% aimed at reducing new HIV infections in Kiambu County. Quarters New HIV Diagnosed Diagnosed and Treated of STI

Quarter	1	19	15
Quarter	2	12	33
Quarter	3	10	42
Quarter	4	12	36

During the course of implementation of PrEP, new H.I.V infection lowered while a sharp rise in Sexually Transmitted Infections was noted. Financial year is divided into quarters, starts in October and ends in September

Lessons Learnt: Generally, this could be attributed to unprotected sex among MSM/MSWs. But mostly, there is inadequate screening and treatment for STIs. Lack of knowledge about STI transmission, prevention and treatment is a problem in our educational system. Moreover, when they access screening, it does not include screening for oral and anal infections.

Conclusion: Even if young MSM/ MSW feel comfortable forgoing condoms because they're on PrEP and feel protected from HIV, they need condoms to prevent STIs. MSM/MSW on PrEP should be screened for STIs on a regular basis. All providers must be educated on appropriate screening that evaluates all sites of possible infection, and screening should be available in all care facilities.

TUPE306

One health amboseli ecosystem and Universal Health Coverage; **Mohameedkhaler Rashid | One Health, Kenya**

Background: Universal health coverage (UHC) is a healthcare system that ensures all communities have access to quality and affordable health care services including preventive. Ensuring UHC is challenging especially for communities living in sparsely populated areas where conservation efforts are in place such as those living in Amboseli. In the pursuit of attainment of UHC by 2030, there is need for innovative approaches that involve participatory, community engagement and multidisciplinary teams in order to develop tangible solutions that are sustainable.

Methods: A multidisciplinary group of students and faculty were engaged in a field based intervention in Amboseli Ecosystem for a period of two weeks in August in 2018. To assess the community OH needs, we used direct observation, structured questionnaires, KII, SII, structure groups, community groups and FGDs. A skit and demonstrations on general health education was used, explaining the root causes of inadequate access to health care facilities for both animals and humans.

Results: The priority One Health needs at the humans, animals and the environment interface that were identified included human diseases like malaria, eye infections (trachoma) and complications of childbirth; animal diseases like Malignant Catarrhal Fever (MCF), Cysticercosis, and Contagious Caprine Pleuropneumonia(CCPP); human-wildlife conflict, water scarcity and limited access to health care facilities. The topmost prioritized need after doing matrix piling was limited access to health care services. These included registering for National Hospital Insurance Fund (NHIF).

Conclusion: The interventions identified priority OH challenges in Tukuta Manyatta that were contributory to the impediment towards UHC. The priority challenges identified included: access to quality health care, respiratory diseases, limited water resources and waste management.

TUPE307

A human rights perspective of maternal and newborn health service delivery in Siaya County, Kenya; **Patricia Teresa Nudi Orawo¹, Monica Oguttu¹ | ¹KMET, Kenya**

Introduction: KMET is implementing a safe motherhood advocacy project in Siaya County- Kenya. Through the implementation process, KMET sought to achieve the objectives of: 1). Gathering and analyzing relevant maternal and newborn health data from 2016 with a focus on deliveries, deaths, staff size, equipment and commodities available in the hospital; and 2) Understanding if/how the providers and hospitals are ensuring provision of maternal health services as human rights. At the project's onset, a baseline assessment documenting the status of maternal and newborn health service provision from a human rights perspective was conducted. The assessment was conducted between April and May 2017 at the 3 Hospitals with the highest volume. The facility assessment was conducted in the context of standards of the right to health-availability, accessibility, acceptability and quality.

Key findings: Availability: All three facilities have staff shortages, commodity stock outs, lack of/faulty essential equipment, no blood bank among others. Accessibility: All 3 facilities have inadequate numbers of assistive devices and equipment for PWD. Maternity services are entirely free. Acceptability: The hospitals only conform to cultural practices that are in line with the ethics and guidelines of medical practices. Patients with personal, religious or cultural beliefs were handled on case-by-case basis.

TUPE308

Nutritional status and associated factors among Children 24–59 months whose mothers are flower farm workers at Isinya Division Kajiado County, Kenya; **Esther Wambui¹, Alice Lakati², Susan Keino³ | ¹Amref Health Africa, Kenya, ²Amref International University, Kenya, ³Moi University, Kenya**

Background: Globally, nutritional status is considered the best indicator of the well being of children. Nutritional status of children aged 24 to 59 months is of paramount importance since foundation of lifetime health, strength, and intellectual vitality is laid during this period. The objective of the study was to assess nutritional status and associated factors among children aged 24–59 months whose mothers worked at flower farms at Isinya Division.

Methods: A cross sectional study among 195 children with their mothers drawn from six selected flower farms in Isinya Division, Kajiado County was conducted. Anthropometric measurements of the children were taken and an interviewer administered questionnaire used to collect data on maternal socio-demographic, child's health related characteristics and household food security status. Anthropometric data was analyzed using ENA for SMART and interpreted using WHO Standards (2006). Data on household food security was analyzed using FANTA indicator guide (2007). Descriptive statistics and Chi-square tests were used in analysis. Statistical significance was considered for $p < 0.05$.

Results: Mean age of mothers was 27 years and a mean income of KES. 7021. Over half of the mothers (59%) had attained primary education and 83.6% were married. Prevalence of wasting among children was 9.3%, stunting 33.8% and underweight 11.3%. A total of 84.5% of households had a form of food insecurity. There was significance association between wasting and mother's level of education ($\chi^2=4.499$; 1df; $P = 0.034$) and stunting and substitute care giver ($\chi^2=10.465$; 2df; $P=0.005$).

Conclusions and Recommendation: There was malnutrition level of concern within these children. There was association between; malnutrition and mother's level of education and malnutrition and type of substitute caregiver.

The flower owners should consider having baby friendly working place. Mothers should take their children for monthly growth monitoring so that malnutrition can be identified and nutrition intervention given.

TUPE309

Innovative approaches to improve access and uptake of IPTp and LLINs among pregnant women in Mbarara district, Uganda;

Sunday Atwine | Amref Health Africa, Uganda

Background: USAID RHITES SW project supports implementation of five elements of the National Malaria Control Program's (NMCP) malaria strategy, Malaria in Pregnancy (MIP) is among them. Existing evidence shows that the use of long lasting insecticide treated nets (LLINs) and intermittent preventive therapy in pregnancy (IPTp) is effective in preventing malaria in pregnancy (MIP). A district performance review revealed a low uptake of 62% and 29% for IPTp2 and LLINs respectively, and 3.1% malaria cases in pregnancy in December 2017. A root cause analysis was done and strategies developed to address the performance gaps.

Methods: Sites that performed below the district average of 62% and 29% were identified and targeted for the interventions. At each site, a detailed root cause analysis was done to identify performance gaps. Using an existing mentorship platform, targeted ongoing technical assistance was provided to health workers basing on the gaps. Quality improvement projects were initiated to continually assess and address process challenges, monthly HSD data reviews to monitor performance and commodity stock levels, MIP commodity redistributions done to avert any stock outs. Conducted quarterly districts/HSD performance reviews attracting all health facilities to discuss challenges and foster peer-to-peer learning. Where LLINs stock outs were identified, the project provided buffer stocks.

Results: Access and uptake of IPTp and LLINs among pregnant women improved in 63% of health facilities leading to increased proportion of pregnant women receiving LLINs from 29% in October 2017 to 91% in August 2018, IPTp2 from 62% to 85%, and cases of malaria in pregnancy reduced to 0.96% from 3.1%.

Conclusion: Improving access and uptake of IPTp2 and LLINs (the two prongs of malaria prevention) is effective in lowering malaria cases among pregnant women. Deliberate efforts should be undertaken to scale-up and accelerate implementation of these innovative approaches.

TUPE310

Factors Influencing the Utilization of Community-based Health Planning and Services (CHPS) in Northern Ghana: High Cost of Maternal and Child Health Services to Clients amidst User-fee Exemption; **Yakubu Abdul-Rahaman | Ghana Health Service, Ghana**

Background: This study highlights social accountability issues and the “unheard” voice of rural communities in Northern Ghana in the CHPS programme in track 4 of AHAIC. CHPS is a national health initiative in Ghana that seeks to reduce barriers to geographical access to healthcare in rural communities. CHPS has brought primary health care services closer to the doorsteps of many more communities and households. However, there has not been a corresponding improvement in utilization of CHPS for Maternal and Child Health (MCH) services. The study was conducted to identify factors that influence the utilization of CHPS for MCH.

Methods: The study was conducted in Northern Ghana. The study design was exploratory crosssectional.

Focus Group Discussions, In-depth Interviews and Key Informant Interviews were used. The study population included pregnant women, mothers of children, young adults and older adults. Health volunteers and health staff were also interviewed. Both random and non-random sampling methods were applied in the selection of the participants. Thematic analysis was used in the study.

Results: Utilization of MCH services provided through the CHPS strategy was hampered by illegal charges by nurses for Maternal Health Record booklets and Child Health Record booklets; high cost of transportation for National Health Insurance Scheme (NHIS) subscription; cost of camping for NHIS subscription centres and unofficial and restrictive requirements by National Health Insurance Authority (NHIA) officers.

Conclusion and Recommendations: Illegal charges by health staff and poor accessibility to health insurance subscription services restricted the utilization MCH services in the CHPS programme. Health Service managers should build the capacity of community members to know their entitlements under country’s MCH policy and put in place effective client complaint systems. In addition, NHIA should leverage on eHealth to make its services readily accessible to community members.

Key words: Unofficial, Charges, Community- based, Health, Insurance

TUPE311

Knowledge and attitude to breast cancer screening and risk factors among women in South West Nigeria; **Tolulope Falowo | CancerAware, Nigeria**

Background: Breast cancer is the commonest cancer in Nigeria. There are several reasons why over 60% of breast cancer patients present with advanced disease. Some of which are lack of awareness and poor uptake of cancer screening methods. The aim was to assess the knowledge of breast cancer risk factors and practice of screening modalities among a cross-section of women in 5 different local Government areas of Lagos, South-West Nigeria.

Methods: This was a descriptive and cross-sectional study conducted among women during a breast cancer awareness and screening program in 5 local Government areas of Lagos. A self-administered questionnaire was used to assess the knowledge of breast cancer risk factors and practice of screening methods. Results were analyzed with SPSS version 21.

Results: A total of 1113 respondents were surveyed across the 5 communities. Distributions among semi urban communities include: 29.7% from Mushin, 22.4% from Somolu, 18.2% from Ikeja, 15.8% from Kosofe and 13.8% from Idi-Araba. Mean age \pm SD of respondents was 43.6 ± 12.6 years. Even though 78.5% have heard about breast cancer and 69.5% breast cancer screening, only 29.3% had ever had any form of breast check. Breast screening modalities used were clinical breast examination (19.9%), mammogram (5.8%) and breast ultrasound (3.6%).

Conclusion: There is a low uptake of breast cancer early detection practices among the studied population.

The high level of awareness about breast cancer did not translate to a higher uptake of breast screening. There is a need to create more awareness on risk factors identification, symptom awareness and emphasize the importance of regular screening for breast cancer as essentials for early diagnosis and survival.

TUPE312

Use of modern contraception among women living with HIV at central hospital of Yaounde, Cameroon; **Hidayatou Hidayatou¹, Joelle Sobgnwi², Phillipe Msellati³** | ¹University of Buea, Cameroon, ²Catholic University of Central Africa, Cameroon, ³Research Institute for Development, Cameroon

Background: With antiretroviral therapy, the number of pregnancies among women living with HIV (WLWH) has increased dramatically in recent years, leading to demand for contraception. The objective of this study was to determine the frequency and factors associated with the use of modern contraceptive methods among WLWH.

Methods: We conducted a cross-sectional study of 252 FVVIH aged 18-49 years on antiretroviral therapy at Yaounde Central Hospital in September to October 2015. A questionnaire on contraceptive practices was administered to all participants. A logistic regression model were used to identify factors associated with the use of modern contraceptive methods among WLWH.

Results: The frequency of use of at least one modern contraceptive method among WLWH was 38.1%. The most commonly used method was the male condom (95.2%), the female condom (25.7%); the pill (17.0%), the morning after pill (9.9%), injectable hormones (9.5%), spermicides (3.5%), IUDs and implants (2.7%). In multivariate analysis, contraceptive use was higher among women with at least secondary education (ORa = 1.9, p = 0.02); those who had a frequency of sexual intercourse 4 / month (ORa = 2.7, p = 0.04) and those who had the support of their partner spouse (ORa = 4.5, p = 0.039). Use of modern contraception was low among single WLWH (ORa = 0.33, p = 0.025) and those with a desire for a child (OR = 0.352, p = 0.003).

Conclusion: These results show that it is imperative to reinforce an integrated family planning program in HIV care centers to guide and support the choice of WLWH in terms of contraception and procreation. The involvement of men in the interest of family planning is essential.

TUPE313

Prioritising Initiatives that reach the vulnerable; **Ephy Oyugi | L'esperance Fibromyalgia Organisation (LEFIFO), Kenya**

Issue: L'esperance Fibromyalgia Organisation (LEFIFO) is an organisation in Kenya that does fibromyalgia awareness and supports people living with chronic pain. Amongst the major objectives of the Organisation is to prioritise initiatives that reach the vulnerable people in the society especially fibromyalgia and chronic pain patients.

Description: We create awareness and advocacy in Kenya; through media, institutions, schools, churches and youth forums. We have also created support groups for fibromyalgia patients through which they interact, encourage each other and share their experiences, impacts of fibromyalgia and chronic pain on their lives and how they manage.

The organisation has been involved in educating the public on fibromyalgia including symptoms, management and diagnosis; especially to the caregivers of those living with fibromyalgia. We also encourage the fibromyalgia and chronic pain patients to get involved in exercise routines such as yoga and aerobics that will strengthen their muscles, uplift their spirits and moods thus improving their quality of life.

We also encourage healthy diets, routine medical checkups and clinic visits and also follow their prescriptions to the later.

Lessons Learnt: Giving hope is the most important aspect of our organisation as Tim Fargo once said 'Don't Let Pain Define You, Let It Refine You'

Recommendations: Therefore, we encourage fibro warriors to rise up in spite of the circumstances and the pain they undergo in their day to day lives.

TUPE314

Motorcycle-Taxi Drivers: community agents of HIV mobilization for female sex workers in Cameroon (MOVHICAM SURVEY-ANRS 13250); **Hidayatou Hidayatou¹, Valerie Sandres², Vanessa-Irène Kouayep²** | ¹University of Buea, Cameroon, ²Moto Action, Cameroon

Background: Considered as Potential bridging group for HIV transmission, motorcycle-taxi drivers (MTD) are engaged in sex with both the general population and Most-at-risk populations such as female sex workers (FSW). Access to screening, which takes into account the specificities of Most-at-risk Populations such as FSW, is essential to ensure the goal of '90% of all people living with HIV will know their HIV status by 2020'. This work aimed to describe the role of MTD as community agents for HIV prevention actor for FSW.

Methods: We conducted a descriptive and analytical cross-sectional study in qualitative approach. The qualitative approach consisted of a participant observation of MTD's work sites, individual interviews with 8 health workers, 8 illicit drug vendors, 33 FSW and 28 MTD. The data collection took place in Yaounde and Douala, 2 main cities of Cameroon from May to July 2017. The analysis of qualitative data was done by content analysis.

Results: We found that MTD are young adults who are exposed to potential sex partners. The proximity between MTD and FSW (waiting points as a place of activity, working hours, client waiting periods) can be explained by spatio-temporal, economic, socio-professional factors that generate close cooperation relationships (negotiation of delivery prices, transportation offer, multiple partners and transactional sex), and conflict relationships. Facilitation in providing clients to FSW and finding FSW for potential customers make MTD, key actors in identifying hot-spots for screening activities and for mobilization and distribution of the sensitization tools for HIV among FSW.

Conclusion: The intervention of this new category of actors in the context of HIV prevention would make it possible to improve the identification of hotspots and the mobilization of FSW, which remain a hard-to-reach population and positively impact the fight against HIV.

TUPE315

Social Accountability as a tool for activating community's health demands: a case of Citizen voices in Kabale district; **Tom Kulumba¹, Lilian K Mugisha¹, Zamzam Asianzu Yusuf¹, Edward Tibawala¹ | ¹Amref Health Africa, Uganda**

Issue: Social accountability initiatives mobilize citizens to protect their rights, and they yield real results. By leveraging evidence to demand that their needs are taken into account, citizens can develop more responsive governments, reduce corruption, and improve the quality and availability of health care.

Description: The social accountability, equity and inclusion cycle is a bottom- up and dynamic process which starts at community level and links to the district level. The Health Systems Advocacy program working with partner CBOs, facilitated a series of discussions with service users, providers at the lower community levels to the Health Sub Districts in Kabale district and engaged District Health Management Team (DHMT) about users' experiences and concerns.

Health champions were empowered with information that was used to guide discussions with service providers, users and key stakeholders. Information was aggregated and shared, follow up of actions made and feedback meetings on the outcome of the social accountability initiative were conducted.

Lessons Learnt: Ten hearings were hosted from January 2017 to June 2018) in Kabale district in which citizen voices on health concerns were captured. Media platforms; talk shows on transparency to manage budget and quality of care issues identified in public health facilities. Ultimately, there were improved relationship between the leaders, health workers and the community that resolves challenges as and when reported. Community champions in the intervention sub counties have been used to monitor the quality and availability of health services. The district advocacy working group has been instrumental in following up on critical commitments made to improve service delivery.

Recommendation: Social Accountability is critical in narrowing the gap between service providers, users and other stakeholders. The approach should be credited for heightening the value of soliciting user voices as part of health systems strengthening.

TUPE316

The outcomes of partnerships with community based organizations in project implementation: a case study of Kitui County;
Samuel Okumu¹, Sarah Karanja¹, Lennah Kanyangi¹, Peter Ofware¹ | ¹Amref Health Africa, Kenya

Background: The study seeks to establish the outcomes of partnering with local community based organizations to help implement project interventions geared towards improving maternal, newborn and child health outcomes. The project partnered with Wikipuvwa Development Actions in Mwingi West and Mwingi Central Sub Counties in Kitui County from 2013–2018. This included working with community health volunteers, community health extension workers, Sub County Health Management Teams and directly with the community.

Methodology: The study was conducted in February 2018 and compared project results across baseline, midterm and end-term evaluations. The study utilized a mixed method approach where probability and purposive sampling techniques were used for both quantitative and qualitative approaches.

Results: The results highlighted the importance and benefits of partnering with WDA as they were critical in community mobilization, sensitization, and reinforcement of project support and ownership by the local community. They were also critical in helping community units register as CSO's to foster growth and opportunities. The study revealed that through the interventions of Amref Health Africa and WDA in Mwingi West and Mwingi Central, skilled delivery, 4th ANC attendance and Measles Vaccination rose from 58%, 54% and 56% at baseline to 78%, 69% and 81% at end-term respectively. However, exclusive breastfeeding dropped from 89% at baseline to 74% at end-term.

Conclusion: Incorporation of a local CBO into the project to help the implementation of community health strategy sought to enhance the project's coverage and sustainability by leveraging on the pre-existing local knowledge and networks of the CBO. Projects need to enhance such partnerships further by technically capacity building the CBOs and mentor them to enable them to identify funding opportunities to grow their scope of work and increase their impact in the community. This will reinforce existing efforts at making project interventions sustainable and foster community empowerment.

TUPE317

Youth in action, the promising sustainable social accountability foundation for Kilifi County; **Omar Mwamuye Bandika | Y-Act, Kenya**

Issue: Youth in Action-Kilifi abbreviated (Y-ACT-Kilifi), portions the growing network of youth advocates and youth organizations championing for gender and SRHR policy address in Kenya. The network comprise six youth-led organization mobilizing their peers campaigning around gender mainstreaming and access to Sexual and Reproductive Health Youth Friendly Services.

Kilifi is one among the counties reports alarming health outcomes on Sexual and reproductive health that increase demand for policy address highly affecting the youth. Increased rate of teenage pregnancies from 22% according the KDHS 2014 to 30% reported by the NACC in 2017 and low access of youth friendly services with 38% unmet need for modern contraceptive. Sexual and gender based violence is at its peak at 98% women violated to an extent it is acceptably hidden in social and political institutions.

Description: The youth established a coalition to build the numbers needed to influence the policy makers and individual youth advocates created linking to complement the advocacy goal. Youth engagement decision makers to put their priorities in to the County policy action. They did 1 memorandum to and meeting to influence five department heads and 2 County Executive Officers in the Departments of Gender, Health and economic planning setting out their priorities. Youth also put their gender and Sexual Reproductive Health priorities to the Kilifi County Integrated Development Plan 2018-2022.

Lessons learnt: You engagement in the policy development on issues affecting them provide a window for their responsibility towards implementation; exhibiting youth are great partners to build Kilifi County, Kenya. The youth proactive role in policy advocacy guarantees promising inter generational partnership towards sustainable healthy gender and SRHR outcomes for Kilifi County and Kenya by December 2018

Recommendations: Continue supporting and building the network in Kilifi as well as replicating it in the other Counties in the Coastal Kenya Region.

TUPE318

Cost of HIV care services in Kenya's private sector; an alternative from public provided "free" HIV care services; **Stephen Mutuku**
| National AIDS Control Council, Kenya

Background: Costing for direct costs of providing HIV services from healthcare system and infrastructure. The services include ARVs provision and laboratory monitoring at different levels of private facilities. It identifies supplies in private health facilities including standalone laboratories and pharmacies. Objectives (i) compared HIV/AIDS delivery and treatment costs within existing models of care in the private and public sector (ii) understand motivations and interests of private for-profit players to provide HIV related services.

Methods: Study adopted Activity Based Costing (ABC) model. The approach is ingredient-based, such that inputs for service to client at facilities are measured and costed. Inclusion of 21% mark-up on overheads' direct cost was estimated from literature providing a range of 13% to 30%.

Results: Dispensing was largest cost component in ART provision in tier 2 and 3 facilities. Additionally, reception, triage, 1st and 2nd consultation did not account for significant proportion of direct cost of HIV service provision. Estimated cost of ART provision was US\$ 589 and US\$. 54.33. Costs per Visit is US\$ 147.2 in tier 2 and between US\$. 88.05 to US\$. 107.28 in tier 3 respectively. Tier 4 laboratory costs were the largest component with CD4 Count costing US\$. 285.10, unlike other components which were insignificant to direct cost. Estimated cost of ART provision is US\$ 1,873.62, and cost per visit was US\$ 468.40.

TUPE319

In vitro gastric and vaginal probiotic properties of *Lactobacillus rhamnosus* yoba | **Ejekwumadu John Nnamdi^{1,2}, Iwueke, Adaku³, Pius Theophilus¹ Ntulum Ibrahim¹, Conrad Miruka¹ | ¹Kampala International University, Uganda, ²Makerere University, Uganda, ³Imo State Polytechnic, Nigeria.**

Background: *Lactobacillus rhamnosus* yoba is a yoghurt fermentation starter culture introduced in Uganda by Yoba for Life foundation. It is being used in rural communities across the country. Recent studies show that probiotics possess more health benefits than earlier thought. Although this bacterium has previously been demonstrated to possess probiotic properties, its potentials for use as a vaginal probiotic has not been demonstrated.

Aim of the Study was to assess the adaptations of this strain to the gastrointestinal environment as well as sexual lubricants and spermicides.

Methods: The strain was cultured on MRS agar at 40, 45 and 50°C, pH2 and pH5, 0.3% bile, Vaginal douche, Sexual lubricant as well as Nonoxyl 9 containing spermicide. The antibacterial activity and haemolytic activity was investigated. Data were analyzed using ANOVA on SPSS version 20.

Results: The *Lactobacillus rhamnosus* yoba grew at all the tested temperatures and both at pH5 and pH2. It survived bile at pH5 but not at pH2. The cell free extract inhibited *S. aureus* but not *E. coli*. There was no haemolysis of blood agar. *Lactobacillus rhamnosus* yoba survived vaginal douch, Sexual lubricant and spermicide at 10⁶CFU/ml.

Conclusion: *Lactobacillus rhamnosus* yoba has in vitro characteristics for oral and vaginal applications like vehicles for antibiotic and drug delivery.

TUPE320

Functionality of community health units in informal settlements of Nairobi Kenya- case of Kibra and Dagoretti Sub Counties;
Collins Owek | Centre for the Study of Adolescence, Kenya

Background: This study focused on the implementation of Community Health Units (CHU) as stated by the Kenya Health Policy. The objectives of the study were to determine the current functionality status and the factors influencing functionality of CHUs in informal settlements, Nairobi County.

Methods: Cross-sectional exploratory method was used employing both quantitative and qualitative approaches. In the quantitative approach, functionality score-card was administered to the eight CHUs supported by Amref Health Africa (AHA) to assess their functionality status as per the score-card developed by AHA and partners. In the qualitative approach, six focus group discussions composed of between 9-12 members each and twenty-one in-depth interviews were conducted among stakeholders. Approval was provided from AHA's Ethics and Scientific Review Committee (ESRC) and data collection was done in March, 2017. Qualitative data was analyzed through coding and generation of themes while quantitative data was analyzed through descriptive statistics.

Results: The findings revealed the improvement of functionality of community units from the baseline study. Two-thirds of the eight CHUs met the basic functionality status while the others were semi-functional. Community Health Committees (CHCs) and Community Health Volunteers (CHVs) were trained, however there was gross shortage of CHA and drop out of CHVs. In health information system, reporting and referral tools were inadequately supplied. Mobile software known as m-learning and m-jali provided better learning and reporting opportunities. In health service delivery, job aids and access to some clients were cited as challenges. Commodities and supplies such as CHV kits have been lacking as well as drugs and supplies at the link health facilities.

Conclusion and Recommendations: In conclusion, Comic relief project contributed towards improvement in functionality of community units in the urban slums. The study recommends recruitment of CHAs, digitalizing reporting by the CHVs, provision of job aids to CHVs and integration of health facility staff in community dialogue days

TUPE321

Heavy metals status of spent engine oil polluted soil: health implications on vulnerable population; **Judith Nwodu¹, Adaku Vivien¹, Igwe Chidi², Ibe Coleman¹ | ¹Imo State Polytechnic, Nigeria, ²Federal University of Technology, Nigeria**

Background: Many oil, gas and solid mineral producing areas in sub-Saharan Africa are heavily polluted, exposing the local dwellers to a plethora of health hazards. Heavy metal status of spent engine oil polluted soil was investigated before pollution, after pollution and after remediation.

Methods: Various concentrations (A: 00ml/5kg, B: 50ml/5kg, C: 150ml/5kg and D: 300ml/5kg) of the polluted soil were prepared. These were further grouped for remediation treatment with ash, cassava/yam peels and vegetables waste separately.

Results: The results showed a dose-dependent, significant increase in the different heavy metals studied as compared to the control. Lead (Pb) (0.16 ± 0.02 : 1.33 ± 0.02); Iron (Fe) (2.20 ± 0.04 : 15.43 ± 0.45); Arsenic (Ar) (0.06 ± 0.01 : 0.25 ± 0.02); Cadmium (Cd) (0.21 ± 0.05 : 2.55 ± 0.37); Nickel (Ni) (0.11 ± 0.02 : 1.84 ± 0.08); Mercury (Hg) (0.08 ± 0.01 : 0.64 ± 0.04). Three separate remediation treatments (with ash, cassava/yam peels and vegetables) of the polluted samples indicated significant ($p < 0.05$) reduction of the individual heavy metal concentrations. Pb was least significantly reduced (1.33 ± 0.03 : 0.66 ± 0.01) while Cd was most significantly reduced (1.08 ± 0.04 : 0.02 ± 0.02) in all the treatments. Fe, Ar, and Hg were also reduced while Ni was significantly reduced in only ash treatment.

Conclusions and Recommendations: These results suggest that indiscriminate disposal of spent engine oil can significantly increase the heavy metal status of the disposal site and by implication adversely affect the plants, animals and humans in that environment. It is therefore recommended that improved access to health facilities be provided to populations most vulnerable to petrochemical pollution while efforts must be made to remediate their environment from heavy metal pollution.

Key words: Health, Heavy metals, oil pollution.

TUPE322

Status of Implementation of the Collective Bargaining Agreement (CBA) for Doctors: A case study of four counties in Kenya; **Happiness Oruko¹, Fredrick Oluga², Dorcus Indalo¹ | ¹Amref Health Africa, Kenya, ²Kenya Medical Practitioners, Pharmacists and Dentists Union (KMPDU), Kenya**

Background: In 2012, Kenya only had an average of 19 doctors per 100,000 population against WHO's recommended level of 36 doctors per 100,000 population. The Kenya Human Resources for Health Strategic Plan 2012 reported a migration rate of 57% of doctors trained each year which translated to an annual loss of about \$ 12.9 million to the country. In December 2017 to March 2018, doctors went for an industrial action for 100 days paralyzing the health sector. They later signed a collective bargaining agreement with the Kenyan Government. The objective of the study is to establish the status of implementation of the CBAs entered between the Doctor's union and respective employers.

Methods: The study adopted a descriptive research design and a mixed methods approach involving review of secondary information, focus group discussions (FGDs) and key informant interviews (KIIs) at the national level and in Kajjado, Narok, Siaya and Homabay counties. In the four counties, data was collected from selected Kenya Medical Practitioners, Pharmacists and Dentists Union (KMPDU) members and leaders at the branch level, government representatives at national and county levels and representatives from civil society organizations. Data was analyzed using content analysis.

Results: The four county governments have implemented clauses of the collective bargaining agreements relating to allowances. However, the basic salary clause has not been implemented by majority of the employers. Other clauses that have not been fully implemented are: promotions, staff training, 40-hour working week and compensation for extra hours worked. The implication is that health facilities are experiencing shortages including for doctors in critical specialized areas. The high workload leads to burnout and work-related stress among doctors.

Conclusions and Recommendations: This paper calls for the establishment of a national forum and framework for escalating challenges in implementing specific clauses of the Doctor's CBA.

TUPE323

Changing the life of obstetric Fistula victims: case of 10 districts in Rwanda; **Noella Umulisa¹, Marie Rose Kayirangwa¹, Marcel Manariyo¹, Stephen Mutwiwa¹, Felix Sayinzoga² | ¹Jhpiego, Rwanda, ²Rwanda Biomedical Centre (RBC)**

Obstetric fistula is a sequela of complicated labour, which, if untreated, leaves women handicapped and socially excluded. Globally, 50,000–100,000 women develop obstetric fistula annually, with the majority of cases occurring in resource-poor countries. At least 33,000 of these women live in Sub-Saharan Africa where limitations in quality obstetric care and fistula corrective repairs are prevalent.

The aim of this study was to describe the process of reaching and repairing women affected by obstetric fistula with the support of the Maternal and Child Survival Program in collaboration with the Ministry of Health.

Since 2016, the Ministry of Health together with the USAID-Maternal and Child Survival Program initiated screening of obstetric fistula in 10 supported districts of Rwanda to enable more women living with fistula access surgery, and build the long-term capacity for fistula care and treatment through training of local surgeons and health workers.

From June 2016 to March 2018, 175 women were repaired. Of these, 95 (54 %), 67 (38%), and 13 (8 %) women had vesico-vaginal fistula, recto-vaginal fistula, and urethro-vaginal fistula, respectively. Successful fistula closure was achieved among 96 %. 1 additional fistula repair center was equipped in Kibungo District Hospital. Obstetric fistula screening was integrated in 12 hospitals' routine services by orienting 21 GPs on comprehensive obstetric fistula screening. MCSP, in collaboration with Jhpiego/Miles for Mothers, supported the social rehabilitation and reintegration of 65 women repaired from Obstetric fistula in 4 districts.

Through enhanced awareness of fistula, improved suspected cases detection at community level and referral system, and better health system capacity, barriers that prevent women with untreated fistula access life-transforming treatment can be overcome.

TUPE324

Eyes on the Abuja declaration; accountability lessons for our counties; **Peter Ngure | Y-ACT, Kenya**

Issue: Kenyan health sector has undergone lots of transformation over the last ten years, with allocation to the health sector increasing from 5% in 2003/2004 budget to 7% (2016/17). This is still way too far from the 15% Abuja declaration that Kenya committed to.

Description: Although there have been improvements of health indicators in the last decade, the health sector continues to face major challenges with the biggest being limited budgetary allocation.

Since devolution; 90% of health functions were moved to the counties with an open cheque on how much to invest in the same. This being the case; and with limited education to the leadership or the citizenry on the importance of investment in health, most counties prioritized infrastructure development (roads, water, buildings) and personal emolument and neglected health.

Lessons Learnt: However, we have seen success as CSOs invest in citizen education, social accountability and development of health policy plans. The MoH approved budget has increased from 86 Billion (2012/14) to 155 Billion (2017/18) representing a growth rate of 88%. Since 2013/14, the figures have been split between the National and county governments. In 2013/14, the split was 48% by counties and 52% by the national government, we have seen nominal increase where in 2017/18, the split is 65% to counties and 35% to national. Health economists have in the last 5 years reviewed county allocations and settle on a global % of 30-35% as being the requisite allocation that can spur healthy living. On average, however, 25.2 percent of county budgets were allocated to health in FY 2016/17, and 23.4 percent in FY 2015/16.

Recommendations: Citizens must advocate for meeting of commitments set, especially at the county level.

CSOs must continue educating the citizens on holding their governments accountable. CSOs must also educate the leaders on the importance of investing in their people's health.

TUPE325

Is there an association between calcium level and preeclampsia in pregnant women? A systemic review; **Melese Linga | Woldia University, Ethiopia**

Background: Trends of pregnancy induced hypertension in low and middle income countries. Serum calcium level in pregnant women was low due to increment in demand as well as nutritional deficiency which predisposes to preeclampsia. Even if World Health Organization recommends calcium supplementation during pregnancy countries didn't give emphasis so the aim is to review calcium level among preeclampsia and normotensive women.

Methods: The data was searched electronically from Medline, Pub Med, Cinhal, Google scholar, Cochrane database reviews and Google. Searching was done by using key words calcium and/or pregnancy/preeclampsia. Case control, retrospective and prospective cohort and clinical trial and papers published in English language was included.

Results: There are about 460 literatures were searched electronically from this only 58 literatures were used others were not reviewed based exclusion criteria. In this review 14 case control studies, 2 cross sectional studies, 1 longitudinal study, 2 clinical trials and 4 reviews were included. The age of the study participant's ranges from 18-41, all study participant's gestational age was greater than 12 wk. All studies use diagnosis criteria for preeclampsia are Blood pressure (BP) more than 140/90 and proteinuria >300 mg/do in 24 hr urine or 1+ in dipstick urine sample. Low levels of calcium have significant association to preeclampsia as indicated in most studies.

Conclusion: Most studies explained that calcium level was low among preeclampsia women even if the sample size they take is too small which makes doubt to trust the association. For future the researchers should focus on investigating path physiological correlation of calcium and hypertension.

TUPE326

Safety and Security in Primary Healthcare facilities -Influence on provision and use of maternal healthcare services in Nigeria; **Enyinnaya Ifeoma Etiaba¹, Benjamin Uzochukwu¹, Tolib Mirzoev², Bassey Ebenso², Obinna Onwujekwe¹ | ¹University of Nigeria, Nigeria, ²University of Leeds, UK**

Background: Maternal and Child Health (MCH) is a priority in Nigeria. Access to services remains a challenge. Little literature exists on how security within health facilities affects provision and use of services, especially by vulnerable pregnant women from disadvantaged backgrounds. The Nigerian government, addressed this to mitigate both demand- and supply-side barriers to MCH services for the underserved population. The programme trained and deployed midwives and community health workers (CHWs) in primary healthcare facilities; upgraded infrastructure; provided supplies and incentives to pregnant women to access and utilize services. Village health workers were deployed to mobilise pregnant women and assist them to access services.

Methods: This on-going study employs a phased mixed-methods Realist Evaluation approach to assess how and under what circumstances programme worked to achieve outcomes in Anambra state, southeast Nigeria. We conducted 32 in-depth interviews with facility managers and health workers, 12 focus groups with services users, analysed facility data and conducted facility exit survey. Specific programme theories, showing causal pathways of change, have been continuously validated and refined throughout data collection and analysis.

Results: The programme, with help of the community attempted to keep facilities secure. However, health workers, all females, felt insecure, due to lack of security guards and did not feel confident to provide services at night. Similarly, pregnant women and family members were reluctant to access facilities at night. The sense of lack of security had detrimental implications for programme outcomes, one of which was to increase facility deliveries.

Conclusion: Poor security contributed to lack of feeling of safety vulnerable groups, thereby constrained utilization of MCH services in an otherwise well-funded and equipped programme. Given that significant proportion of deliveries fall during night time, ensuring adequate security night security will contribute to round-the-clock MCH care and therefore can help address the needs of most vulnerable populations.

TUPE327

Un-met supportive care needs and determinants among cancer patients treated at University of Gondar Specialized Hospital, Northwest Ethiopia: a prospective study; **Begashaw Melaku Gebresillassie | University of Gondar, Ethiopia**

Background: Assessment of unmet needs is an important requirement to plan any supportive care intervention. This study aimed to assess the unmet supportive care needs of cancer patients treated at a University hospital.

Methods: A prospective hospital based cross-sectional study was conducted from January to August 2017. Adult (18 years and greater) cancer patients and those who were receiving therapy were consecutively recruited. The 34-Item short-form Supportive Care Needs Survey tool was used to assess unmet needs. Descriptive statistics, One-way ANOVA and binary logistic regression analysis were employed to describe and examine association between variables.

Results: A total of 150 interview guides were included in the analysis. More than half of the participants were females 83(55.3%) and not attended school 69(46%). In majority 65(43.3%) the disease was metastasized even though they undergone surgery 78(52%). The overall mean score level of unmet need towards cancer care was 3.49. The highest unmet need mean score was reported from the health system and information need domain, and being informed about things you can do to help yourself to get well (72%) was the highest ranked item. A significant unmet need difference with respect to need domains was found in sex, age, area of residence, occupation status and income. Whereas, sex and area of residence were found to be an independent predicting factors for unmet needs.

Conclusion: The overall level of unmet needs with respect to five need domains was high. Health system and information need domain ranked first. A significant unmet need difference was found in sex, age, residence, occupation status and income. Sex and residence were found to be independent predicting factors. Hence, professionals working in oncology unit should be aware of unmet needs and expect changes over time, and certain programs and services to address the identified unmet needs should be urgently provided.

TUPE328

Mortality and predictors among HIV exposed uninfected infant at University of Gondar comprehensive specialized hospital, Northwest Ethiopia: retrospective follow-up study; **Chalachew Adugna¹, Aklilu Endalamaw¹, Nigusie Birhan¹ | ¹University of Gondar, Ethiopia**

Issue: Child mortality is major problem especially in Africa. HIV exposed infants are especially vulnerable group of the population.

Description: Those children born from HIV positive mother are highly vulnerable to HIV infection, poor parental care due mother illness, exposed to ART starting from intrauterine through postnatal, nutritional problem and other related problem.

Lessons Learnt: Mortality was high among HIV exposed uninfected infants. Especial attention has to be given to those infants who have a suggestive sign and symptom of HIV infection, low birth weight, growth failure, non-exclusive breastfeeding, and lost their parent

Recommendations: This abstract tries to show the magnitude of mortality and the predictors among HIV exposed infants. So planning intervention that can reduce this contributing factors will minimize the mortality and morbidity of children. Therefore this abstract can contribute important input for future health improvement for policy makers and other stakeholders.

TUPE329

Gender responsive budgeting: creating an enabling environment for gender equality and social inclusion; **Elizabeth Elfman¹, Annie Baldridge¹, Federica Busiello¹ | ¹DAI, USA**

Issue: Gender Responsive Budgeting is not simply budgeting for women, or a budget allocated by women for women, it is in essence a form of benefit incidence analysis: a technique to assess the impact of the budget and/or expenditure on a subset of the population – in this case women. This means taking into account gender and other intersectional dimensions such as age, class, ethnicity, etc., that may fall victim to social exclusion.

Description: GRB efforts look at: whether spending is sufficient to meet the practical and strategic needs of all while working towards closing the gender gap in terms of both pay and expenditure; how budgeting decisions affect unpaid care and subsistence work and the distribution of these between genders; and whether spending in practice matches budget plans. GRB can take many forms, it can be carried out at the national or local level, and by different actors (government, civil society, NGOs), and it can involve a variety of different actions throughout the budget process.

Lessons Learnt: Gender Responsive Budgeting is a powerful tool to ensure that the priorities of men and women are addressed and incorporated in the budget cycle, ultimately promoting gender equality and working towards the fulfillment of women's rights. Budgeting is a way to address some of the gender inequalities that exist in society. Effective use of GRB can enhance democracy, civil society participation and accountability, support gender mainstreaming in macroeconomics, strengthen civil society participation in economic policy making, enhance the linkages between economic and social policy outcomes, and ensure the tracking of public expenditure against gender and development policy commitments.

Recommendations: Gender Budgeting has in some countries led to changes in fiscal policies and contributed to the achievement of gender-oriented goals; while in others it has led to improved systems of accountability for public spending for gender-oriented purposes.

TUPE330

Governance challenges and solutions within a free Maternal and Child Health (FMCH) services programme: re-visiting the SURE-P MCH programme in Nigeria; **Benjamin Uzochukwu | University of Nigeria, Nigeria**

Background

The Subsidy Reinvestment and Empowerment Programme (SURE-P) included MCH related interventions referred to as SURE-P/MCH. It was launched on January 2012, but was shut down in April 2015 following emergence of a new National government. The programme was aimed at improving access to quality free MCH services. There is need to look at the lessons learnt around governance of such programmes. This will inform the planning and implementation of free MCH services as will be provided by recent health financing programme reforms in Nigeria like the Basic Healthcare Provision Fund (BHCPF). The project aims to explore the governance challenges and solutions within the free MCH services in the SURE-P MCH programme.

Methods: Document Reviews, IDIs and FGD as part of an ongoing Realist Evaluation of the SUREP/ MCH programme. The Siddiqia et al. 2009 framework for assessing Health Systems Governance was used for analysis

Results: The key challenges included issues around strategic vision; participation and consensus orientation; rule of law; transparency; responsiveness of institutions; equity; effectiveness and efficiency; accountability; information and ethics

Conclusion and recommendations: The FMCH within the SURE-P/MCH programme was fraught with lots of challenges. Access to information, social accountability efforts, increased effective health reporting, financial audits, equity, inclusiveness and others are associated with improved governance of the FMCH. The information provided here will assist development and implementation of similar FMCH programmes in Nigeria to ensure good governance

Key words: Health system Governance, maternal and child health programme, SURE-P, Nigeria

TUPE331

The Burden of Road Traffic Injury among Trauma Patients in Ethiopia: A systematic review and Meta-analysis; **Aklilu Endalamaw**
| **University of Gondar, Ethiopia**

Background

Road traffic injury (RTI) is one of the main reasons for trauma-related admission in Ethiopian hospitals. Nationally representative data is needed to develop and implement the public health emergency management strategy. Therefore, this study was aimed to estimate the national pooled prevalence of RTI among trauma patients in Ethiopia.

Methods: PubMed, Excerpta Medica Database (EMBASE), psycEXTRA, and Google Scholar databases were searched. Heterogeneity of studies was assessed using the I² statistics. Publication bias was checked by using a funnel plot and Egger's regression test. The DerSimonian and Laird's random-effects model was used to estimate the pooled prevalence. Subgroup analysis was conducted by age and region. The trend of RTI estimated as well.

Results: The pooled prevalence of RTI among trauma patients in Ethiopia was 31.5% (95% CI: 25.4%, 37.7%). Regional subgroup analysis showed that the pooled prevalence of RTI was 58.3% in the region of southern, nation, nationalities, and peoples (SNNPR) and 33.3 % in Addis Ababa. Subgroup analysis based on patients' age showed that the pooled prevalence of RTI was 51.7% in adults, 14.2% in children, and 32.6 % in all age group. The time-trend analysis has shown an increasing burden of RTI in Ethiopian hospitals.

Conclusion: The burden of RTI among trauma patients was high. Therefore, strengthening road safety management throughout the country is needed to reduce RTI.

Keywords: Hospitals; road traffic injury; trauma patients; Ethiopia

TUPE332

Heat-stable carbetocin versus oxytocin to prevent hemorrhage after vaginal birth; **Zahida Qureshi¹, Alfred Osoti¹ | ¹University of Nairobi, Kenya**

Background: Postpartum hemorrhage is the most common cause of maternal death. Oxytocin is the standard therapy for the prevention of postpartum hemorrhage, but it requires cold storage, which is not available in many countries. In a large trial, we compared a novel formulation of heat-stable carbetocin with oxytocin.

Methods: We enrolled women across 23 sites in 10 countries in a randomized, double-blind, noninferiority trial comparing intramuscular injections of heat-stable carbetocin (at a dose of 100 µg) with oxytocin (at a dose of 10 IU) administered immediately after vaginal birth. Both drugs were kept in cold storage (2 to 8°C) to maintain double-blinding. There were two primary outcomes: the proportion of women with blood loss of at least 500 ml or the use of additional uterotonic agents, and the proportion of women with blood loss of at least 1000 ml. The noninferiority margins for the relative risks of these outcomes were 1.16 and 1.23, respectively.

Results: A total of 29,645 women underwent randomization. The frequency of blood loss of at least 500 ml or the use of additional uterotonic agents was 14.5% in the carbetocin group and 14.4% in the oxytocin group (relative risk, 1.01; 95% confidence interval [CI], 0.95 to 1.06), a finding that was consistent with noninferiority. The frequency of blood loss of at least 1000 ml was 1.51% in the carbetocin group and 1.45% in the oxytocin group (relative risk, 1.04; 95% CI, 0.87 to 1.25), with the confidence interval crossing the margin of noninferiority. The use of additional uterotonic agents, interventions to stop bleeding, and adverse effects did not differ significantly between the two groups.

Conclusions: Heat-stable carbetocin was noninferior to oxytocin for the prevention of blood loss of at least 500 ml or the use of additional uterotonic agents.

TUPE333

Evaluation of malaria morbidity trends in complex humanitarian settings in north western Tanzania; **Siril Kullaya | World Health Organization, Tanzania**

Background: The excess mortalities and morbidities resulting from disease outbreaks which occur in complex humanitarian situations can be prevented through timely and effective preparedness and response planning if sufficient knowledge of the particular disease or outbreak potential is sufficient. This knowledge can be generated through evaluation of disease trends from the past events from which lessons learned can be used to inform the preparedness and response planning for the present and future events. The aim of the study was to evaluate malaria morbidity trends in the complex humanitarian emergencies in North Western Tanzania in the past 8 years.

Methods: Information on the number of confirmed malaria cases and the incidence based on the monthly refugee population updates was obtained from HIS records. Information on temperature and rainfall were obtained from the regional meteorological agency. Time series analysis was done using autoregressive integrated moving averages modeling to determine changes in malaria incidence over the past 8 years with changes in temperature, rainfall and population.

Results: Total number of malaria cases reported in Nyarugusu camp (2010-2017) was 753,568 (monthly average 7,932). The number of malaria cases and the incidence show a general increasing trend as well as seasonal trend with double peaks between December and June and low transmission from July to October. While rainfall pattern shows a fluctuating and general decreasing trend, temperatures appear to be constantly high throughout the observed period with random unpredictable fluctuations. From cross correlation functions, rainfall leads malaria transmission by one month while temperature variation coincides with the transmission. The 2015 malaria epidemic coincided with record low temperatures and refugees' influx.

Conclusions and recommendations: Climatic patterns are potential factors influencing malaria transmission in complex emergency humanitarian settings. Planning of malaria programs to reduce morbidity and mortality in such settings may benefit from working with meteorological agencies as key stakeholders.

TUPE334

Breastfeeding made Easier! An innovative expression solution for the workplace; **Caroline Kyalo¹, Alice Tarus¹, Eddine Sarroukh¹ | ¹Philips, Kenya**

Background: The WHO and UNICEF recommend optimal breastfeeding practices to include initiation of breastfeeding within the first hours after birth, exclusive breastfeeding for the first six months of a child's life (increasing the child survival rate by 14.4 times) and continued breastfeeding for up to two years. About 40% of Kenyan children are not exclusively breastfed. With the increased proportion of women in the formal sector in SSA, there is need to address factors hindering breastfeeding practices, for example, lack of dedicated rooms for expressing as well as lack the basic necessities such as sink with running water, electric socket and milk storage facilities. Philips designed and deployed an innovative mobile expression cabinet to address this. The study aimed: 1) To determine whether the expression cabinet is useful in supporting working mothers to exclusively breastfeed. 2) To determine the willingness of companies to invest in the solution

Methods: This study employed prospective qualitative design and was carried out for a period of 6 months (December 2015 to May 2016) in a commercial building in Nairobi. 15 participants were recruited through snowballing technique. Key stakeholders in government and private sector were engaged to get insights on the solution.

Results: The users consistently utilized the cabinet for the study duration. Insights included better concentration at work, ability to work for longer, increased milk production as well as ability to express more than once in a clean and private space. 13 mothers were able to exclusively breastfeed during the period of the study.

Conclusions and recommendations: 87% of the participants exclusively breastfed their babies. The solution got buy-in from the Ministry of Health as well as private sector with one of the private firms installing it commercially

TUPE335

Improving the health of pastoral communities through appropriate policies; **Lanoi Parmuat | Enai Africa, Kenya**

Issue: ENAI-Africa's mission is to improve the quality of life for pastoralist communities by harnessing holistic participation, resource utilization in improving health, food security and gender equality for equitable and sustainable development. Pastoral women have unique health and development needs, faced by enormous challenges such as harmful traditional practices which often compromise their health and future. Early sexual debut, unintended pregnancies, Female Genital Mutilation, early marriages and high number of births remain pertinent issues for adolescent girls and women. Development of a policy document to address this issues tailor-made for this particular County was of great need because of this unique needs

Description: ENAI-Africa took the initiative to spearhead the development of the Kajiado County Family Planning Costed Implementation Plan (2017-2022). The document provides a policy framework for improving family planning utilization and addressing the unmet sexual reproductive health needs and rights by 2022. The plan was developed through an extensive and intensive consultative process which involved the participation of various stakeholders and public engagement. The plan emphasizes the following key strategic priorities that will enhance the achievement of the County FP CIP objectives: Leadership and governance, Service provision and access, Commodity security, Health information, monitoring and evaluation, research, Health workforce, Family planning advocacy, Family planning financing and resource mobilization.

Lessons Learnt: Some quick wins from the development of the document were: Establishment of a Family Planning-Technical Working Group, allocation of Family Planning dedicated funds and development of the policy document. An emerging issue during the development of the document was the need for the Kajiado County minister of Health to prioritize implementation of a strategy to expand adolescent access to Family Planning information and services.

Recommendations: From the success of the project we would recommend that creation of such policy documents tailor made to fit target communities be prioritised.

TUPE336

An assessment of nutrient intakes and pregnancy outcomes among women exposed to nutrition psycho-educational initiative, in Migori County, Kenya; **Florence O Odiwuor¹, Judith Kimiywe², Judith Waudu² | ¹Rongo University, ²Kenyatta University**

Background: Several pregnant women in many parts of the world enter pregnancy at sub-optimal weight and height. Malnutrition primarily affects pregnant women and other vulnerable groups. Maternal nutrition is critical for both mother and child as it lays fundamental foundation for the successful outcome of pregnancy. Kenya's high rates of undernutrition among women are due to sub-optimal feeding practices, inadequate energy and micronutrient intake and insufficient awareness and knowledge on nutritionally adequate diets leading to poor pregnancy outcomes. This study assessed nutrient intakes and pregnancy outcomes among pregnant women exposed to a psycho-educational initiative in Migori County.

Methods: A Prospective Cohort study design was used and simple random sampling was used to obtain a sample of 150 pregnant women up to ≤ 26 weeks gestation who were enrolled into Nutrition Psychoeducation Intervention Study. Data was collected by 24-hour recall, anthropometric measurements and Secondary data and was analyzed by Nutri-Survey computer package descriptive, t-tests and Pearson's Product Moment Correlation.

Results: Findings showed that the delivery and birth weight were normal. Weight gain was less than recommended. Pregnant women exposed to nutrition psycho-education may have improved nutrient intakes and positive pregnancy outcomes.

Conclusions and Recommendations: The finding is important to the governments, intergovernmental agencies, research groups, business enterprises and community under study. The study fills the knowledge gap and therefore contributes to the advancement of knowledge.

TUPE337

Willingness to pay for a social health enterprise to improve social health protection among uninsured households in informal settlements in Nairobi, Kenya; **Peter Otieno¹, Shukri Mohamed¹, Hermann Pythagore Pierre Donfouet¹, Elvis Wambiya¹ | ¹African Population and Health Research Center, (APHRC), Kenya**

Background: More than half of the urban population in Sub Saharan Africa live in informal settlements and majority lack financial protection from healthcare costs. Social health enterprises have been shown to improve access to quality healthcare and financial protection in Asia. However, there is scarcity of evidence on the feasibility of setting up social health enterprises in sub-Saharan Africa. We assessed the feasibility of establishing a social health enterprise among uninsured households in a resource poor urban setting in Nairobi, Kenya.

Methods: A random sample of 300 households in an informal settlement in Nairobi, Kenya were recruited between June and August 2018. We defined a hypothetical social health enterprise as a community based health insurance scheme that operates on the principle of mutuality, voluntary and open membership, concern for the community and member economic participation. Willingness to pay for the social health enterprise was elicited using contingent valuation. Multivariable interval regression analysis was used to estimate the willingness to pay and its predictors.

Results: Our results suggest that 57% of the households do not have any formal health insurance cover and nearly all (97%) were willing to pay US\$ 2 per person per month for a scheme that would provide quality healthcare services. The amount respondents were willing to pay increases with wealth quintile (=45.5; $p<0.1$), satisfaction with current health care services (=38.2; $p<0.05$) and distance to primary health care facility (=12.6; $p<0.01$). Males are more likely to pay than females (=33.0; $p<0.1$) and this amount decreases with increase in age (=-2.4; $p<0.01$).

Conclusion and Recommendations: Setting up of social health enterprise may be feasible in the informal settings in Nairobi. However, there is need to pilot the social health enterprise to determine if this hypothetical willingness translates to actual practice

Key words: Feasibility, Social Health Enterprise, Insurance Coverage⁹⁶

TUPE338

Effects of health financing on achievement of universal health coverage – a case of Malawi; **George Jobe; Malawi Health Equity Network, Malawi**

Issue: The Malawi health system is at three levels: primary (e.g. health centres), secondary (district hospitals) and tertiary (central hospitals). Malawi is a signatory to many protocols and declarations that consider health rights of citizens, including the consideration for health financing. Budget allocations in Malawi have been below the 15% Abuja benchmark except in the 2014/2015 financial year since the launch of the declaration.

Description: Although the primary level of health care serves the majority of the population, it is lowly funded while tertiary is the highest funded in addition to having specialists and state of the art equipment.

Lesson Learnt: This has resulted in a number of challenges facing the health sector and in the processing threatening realisation Universal Health Coverage. These include: 30% vacancy rate in the sector (Malawi Health Sector Strategic Pla), failure to meet distance requirement of 8 km radius between health facilities (HSSP II and MHEN Research Findings), failure to avail all the UN prescribed 13 essential drugs all the time (Survey Findings), and inadequate ambulances to serve Malawians. There is also pilferage of drugs and medical supplies by some health workers. In trying to address the financing gap, central hospitals introduced paying wards that are spacious while those who cannot afford to pay are put in congested general wards; there are plans to introduce paying wards in some of the district hospitals although they also currently congested; central hospitals introduced bi-pass fees to deter the public from flocking there directly without referrals from district hospitals and health centres; Ministry of Health established an Anti Drug Theft Unit and Quality Management Directorate to check some of the malpractices; Government entered into service level agreements with some facilities belonging to Christian Health Association of Malawi (CHAM) on maternal and neonatal services only although the invoices are not effectively serviced

TUPE339

Rural health workforce: Equity, recruitment and retention; **Pratyush Kumar | WONCA Rural South, Asia**

Issue: Astana declaration 2018 reaffirms its commitment to strengthening Primary health care to achieve universal health coverage. Key to strengthen primary healthcare lies with its health workforce team.

Description: Around 60 % of low and middle income countries population resides in rural areas in resource limited settings. There is inequity in terms of health workforce, resources allocation and compounded by lack of future roadmaps.

Lessons Learnt: Health care needs to match rural demands and provide comprehensive, continuing care which is affordable, accessible and also accountable. It also need to take care of vulnerable and minority population and remove any discrimination within on any grounds.

Health for all won't be possible without taking care of these vast rural population which needs strategic investment and equitable distribution of resources, education and training. Recruitment and retention with adequate and dignified remuneration and working environment is required.

Recommendations: Its not always that only those countries with more resources gives better health outcomes, globally various healthcare models have shown that within limited resources with strong commitment, fair political choices, sustainable economic policy and team work may come out with positive results.

To achieve SDGs its time to discuss, collaborate and develop health policies for LMICs keeping in view limited resources and shortage of health workforce.

TUPE340

Mental Health: An analysis of World Mental Day, 2018; **Grace Murianki | Kenya Professional Psychologists Counselors, Kenya**

Background: This study will examine discussions about mental health based on Twitter activity from the 9th to 11th October 2018 to coincide with the World Mental health day. Mental and neurological disorders are responsible for 13% of the global burden of disease and more than half of the 10 leading risk factors that cause one third of premature deaths worldwide have behavioural determinants. In spite of this evidence, mental health is a neglected and an under researched area of public health, particularly in low- and middle-income countries (LMICs).

Methods: The value of social media for understanding and affecting attitudes towards mental health are now well established and Twitter data is considered an effective tool for capturing mental health discussions. The data for this study will be obtained using NCapture, a web browser extension used to capture social media data and thematic analysis will be employed to analyse the resulting data set.

Results: Results will be reported as follows: 1) The number of tweets generated, the type of tweets (original or retweets, pictures, videos, web links etc), mental health themes discussed, the mental health 'language' used in Twitter discourse, and the types of participants contributing to the discussions (by age, professions and location).

Conclusions and Recommendations: Findings from this study will have a huge contribution to policy, and will highlight potential topics or interventions that may prove useful for mental health practitioners particularly in LMICs.

TUPE341

Community-based targeting in advancing Universal Health Coverage among vulnerable household in Kenya; **Leila Adunda, Charles Orora, George Mutembula | Kenya**

Background: The abstract focus on the Health Insurance Subsidy Program in Kenya that was financed by the World Bank to extend health insurance coverage through the National Health Insurance Fund (NHIF) to vulnerable households in selected clusters. Implementation was done with support from development partners, one being Population Services Kenya that leveraged its expertise in behavior change communication. Enrollment and utilization of any given social insurance entail behavior change dynamics which requires consumer insights and intensive education.

Methods: The intervention was grounded on the Social Ecological model (SEM) a theory-based framework for understanding the interactive effects of personal and environmental factors that determine behaviors. Blended with the Transtheoretical model (TTM) through participatory Social and Behaviour Change Communication. Lastly, Andersen's Behavioral Model of Health service utilization (BM) Andersen (1995) was used to understand different factors that come into play for the effective utilization of health services (Anderson). Mixed method approach where both quantitative and qualitative data was utilized. HISP beneficiaries were selected from lists developed by the Social Protection Secretariat (SPS) and eligibility criterion was adhered to. Stakeholders were recruited and trained to educate beneficiaries on HISP product and empowered them to register and utilize the scheme. Quarterly feedback and continued stakeholders' engagement were held to close the loop on a real-time between the players.

Results: At the start of the intervention, 64% of the household were interested but lacked vital registration documents (Identification cards and birth certificates) coupled with misconceptions that beneficiaries had about HISP. By the end of the intervention, registration was at 96%. Additionally, 83% of the household heads were satisfied with HISP and they perceived their membership to have improved access to health care.

Conclusion and Recommendation: Key lessons were, a real-time feedback mechanism between beneficiaries and NHIF officials through the CHVs resolved a lot of underlying issues.

TUPE342

Out in the open - strategies to engage parents and young people in talking about sexual and reproductive health and rights in Burundi; **Fabien Ndikuriy**| **Organisation communautaire, Burundi**

Background: Burundi has a young population, with more than 60% of the population under 25 years. The recent demographic study shows 11% of adolescents ages 15-19 years are sexually active with 7% of adolescent girls already mothers. Despite high levels of knowledge about contraceptive methods (97.4% amongst adolescents), use of contraception is low (only 1.3% amongst 15-19 year-olds and 11.7% amongst 20-24 year-olds). Between 2009 and 2013, 4760 pregnancies were documented in schools. A follow-on study in November 2013 showed an increase in unplanned pregnancies of up to 50%.

Methods: Under an SRHR and HIV integration project called Link Up, the network of young people living with HIV in Burundi is holding dialogues between parents and young people to support them to speak about issues that are considered taboo. For cultural reasons, parents and young people do not easily speak about sexuality. The dialogues organised allow parents and young people to first speak separately on specific SRHR topics and then come together for a facilitated discussion.

Results: Young people ages 15-19 years find it particularly difficult to speak with their parents one-to-one. Conducting the dialogues in groups enables parents and young people to more comfortably address sensitive topics of sex, love, pleasure and responsibility. The dialogues have highlighted that 15-19 year olds experience unplanned pregnancies, early marriage, unsafe abortions and STIs. Many turn to their peers for support, rather than their parents, making it difficult for them to access continuous family support.

The role of the facilitator is key in creating a space where parents and young people feel safe to speak, without fear or judgement. An effective facilitator also manages tensions between and within the two groups.

Conclusion: Facilitated and open dialogues between parents and young people must be prioritised in SRHR programming so sensitive topics are surfaced and discussed. The dialogues are a critical entry point for young people to ask questions and access services, which will enable them to lead healthy sexual and reproductive lives.

TUPE343

Engaging youth as stakeholders in promoting social accountability and advocacy; **Sylvia Ayieko | White Ribbon Alliance, Kenya**

Issue: There is a need for social accountability and to ensure that the voice of citizens is being heard. When communities, including youth, are activated and empowered, they can demand for their rights to health. Adolescents and youth are deeply affected by sexual and reproductive health (SRH) outcomes that have long-term physical, emotional, psychological, social and financial repercussions and their voices should be heard.

Description: White Ribbon Alliance Kenya (WRA Kenya) recognizes that citizen-led advocacy among adolescents and youth has the potential to maximize change and impact the society at large, because of the enthusiasm and energy harnessed by the youth. Adolescent and youth-led accountability programs can contribute to strengthening health systems by mobilizing marginalized communities with limited access to quality healthcare. WRA Kenya promotes youth-led advocacy by equipping youth and adolescents to become effective advocates for their own health through education and empowerment. WRA Kenya has also utilized innovative approaches such as citizen journalism to collect data on health. Furthermore, youth-led accountability is dependent on the building of networks with mainstream media and champions to ensure strengthened accountability in communities, health systems, and government.

Lessons learnt: Through these initiatives, the trained youth have reached out their communities and have held their respective health facilities accountable. They also formed peer support groups and are actively involved in the current What Women Want campaign

Recommendation: There is a need to further harness social accountability to address other health issues with the goal of achieving universal health coverage. The youth, who are actively engaged in social accountability, as community health advocates should be recognized and incentivized as a means of strengthening sustainability.

Key words: Youth-led, accountability, citizen journalism, advocacy

TUPE344

Sanitary and toilet facilities in Nigeria Universities: a case study of University of Abuja; **Michael Oke | Michael Adedotun Oke Foundation, Nigeria**

Issue: A joint UNICEF/WHO of 2012 indicates that 34 million Nigerians have no toilets and practices open defecation and this paper will be evaluating the sanitary practices and toilet facilities in Nigeria Universities. We visited the Toilets, early in the Morning, Afternoon and Late in the Evenings. Oral interviewed were conducted with Fifty Male Students and Fifty Female Students users of the different toilets at the main Campus of the University of Abuja,

Nigeria. Showing with the different pictorial representations and reflection on some of the best practice. Why this paper is trying to show the different practices it is the only University that is situated in the Federal Capital Territory and we believe it's supposed to be one of the best University.

Lessons Learnt: About Ninety Five percent of the student complains bitterly about the insufficient and inadequate maintenance of the public Toilet, but there are not complains of the different sanitary systems in the classrooms and various dustbins are kept neatly at the different places for waste paper and refuse management systems.

Recommendations: We stress that the University management should, provides more dustbins, built more Toilets, and fumigation of the campuses and it was reflected in the conclusion and recommendation

Keywords: Toilets, Students, Male, Female, Sanitary, Universities, Abuja

TUPE345

Expanding access to basic health services through 'shared value' partnerships in Rwanda; **Muhuza Imelda | SFH, Rwanda**

Issues: Expansion of public private partnerships can increase community access and coverage for basic health services across Africa. There is an opportunity to build upon to engage new actors within the health sector, harness knowledge and expertise among partners, and forge new PPP models for improved health outcomes. Engaging local communities as partners fosters sustainable solutions

Description: The Government of Rwanda is committed to expanding primary care services so that no person must walk more than 5 kilometres to receive basic health services. The Society for Family Health (SFH) Rwanda, a local non-profit aimed to improve the health of Rwandan citizens, has developed robust public private partnerships with the Ministry of Health, the World Health Organization, and several corporate partners to expand construction of health posts and to identify the optimal basket of products and services to sustain high-quality primary care. Together, these partners have established and equipped a total of 81 health posts, branded "Girubuzima" ('Be Healthy'). To reinforce local ownership and foster sustainability, health posts are constructed in collaboration with the district and community members as official project partners and beneficiaries. This is organized in a form of popular communal work (Umuganda), whereby communities proudly contribute to site preparation and material collection

Lessons Learnt: Rwanda's expansion of health posts, materialized through this PPP model, offers numerous benefits to the community by improving access to affordable primary care, decreasing travel time and associated costs for care; and engaging communities as partners from the outset

Next Steps: Support the continued expansion of health posts to reach more Rwandans, train providers, and optimize service provision at the primary level

Key Words: public private partnerships; Rwanda; health posts

TUPE346:

Effectiveness of the nutritional supplement, EvenFlo, in reducing sickle cell anaemia crises in patients living with the disease

Richard Muga¹, Arthur Ajwang¹ | ¹Uzima University Medical School, Kenya

Background: Approximately 50-90% of those born with sickle cell disease (SCD) in Sub Saharan Africa die undiagnosed before their 5th birthday from preventable diseases. SCD has been an “orphaned” non-communicable disease in terms of new therapies. In this study we investigate the efficacy of EvenFlo versus placebo in reducing the frequency of crises due to SCD. “Leaving no one behind”.

Methods: A total of 120 children were screened and 70 SCD subjects were enrolled into the study. Subjects were randomized in a 1:1 ratio, 35 into either the treatment or control group. 32 (91.4%) and 30 (85.7%) enrolled subjects in the treatment and control completed 6 months study follow-up. The baseline characteristics were similar between the groups in terms of age, gender, weight, height and hemoglobin level.

Results: The frequency of SCD crises was 0(0%) in the treatment group compared to 30(100%) in the control group over the 6 months period for each subject. All the subjects from the control arm had more than one crisis monthly for the 6 months duration of the study, compared to none in the treatment group. The mean change in haemoglobin level from the baseline, was greater in the treatment arm. The incremental difference in Hemoglobin level at baseline and at 6 months for the treatment group was statistically significant at 95% confidence interval, p-value 0.003684412 at 6 months. Treatment group showed improvement in the weight index as compared to the control arm. One participant in the treatment group had diarrhea on initiation day.

Conclusions: The results support previous unpublished data that EvenFlo increases hemoglobin level and improves weight index. It also reduces significantly the frequency of SCD crises and has a mild side effect.

TUPE347

Sharp increase in private sector's contribution in caesarean section births in India: Trends over past 25 years; **Abhishek Kumar¹, Mousumi Gogoi¹ | ¹Population Council, India**

Background: Cesarean section (C-section) when indicated is a life saving procedure but when performed without appropriate indications can add risk to both mother and baby. Evidence from India indicates a sharp increase C-section births – the current level of C-section in India is 17% against the WHO standard of 10% – even most of the health facilities are even not ready to provide essential components of comprehensive obstetric and newborn care. This clearly indicates that C-section deliveries are being conducted under life-threatening conditions in India and mostly for profit making. Private health sectors are playing big role in that context.

This paper examines trends in private sector contribution in C-section birth in India, across geographies and selected seriocomic characteristics of women.

Methods: We used all four rounds of the Demographic Health Surveys (DHS) of India conducted during 1992-93 to 2015-16. Bivariate analysis is used to understand the level and trends in C-section deliveries. Multivariate analyses is applied ton pooled data of all four rounds of the survey in order to understand moderation effect. All the analyses are segregated by public and private health sector to understand the contribution of private health sectors in C-section deliveries.

Results: In India, about 17% deliveries are C-section, of which 40% (an increase from 8% in 1992-93) are conducted in profit making private health facilities and only 11% are conducted in public health facilities. More than 50% of cases, women/or their family were informed about decision of C-section delivery after onset of labor pain. The level of C-section is high among urban, most educated and women from wealthiest household, and more than 70% of Csection among these women are conducted in private health facilities. Surprisingly, in states where private health facilities are highly inefficient to provide other healthcare services, their contribution in C-section deliveries is noticeably high.

TUPE348

The role of private sector in increasing access to contraceptive services in Kenya. Case study of the Tunza franchise; **Javan Waita¹, Job Makoyo¹, Sylvia Wamuhu¹ | ¹Population Services, Kenya**

Background: Women and adolescent girls have the right to access, high quality and effective contraceptive services and information. However, availability and access of quality contraceptive services and products is one of the key challenges affecting contraceptive prevalence rate globally. Social Franchising gives an opportunity to private providers to be in a network that standardize quality and monitors the service provision through health care standards.

Methodology: In 2017, Population Services Kenya through the health communication and marketing program worked with Private sector facilities. The project was implemented in 372 Private sector facilities within 38 counties in Kenya targeting women of reproductive age with family planning information and services. Monthly data verification and collection was done within the facilities and data uploaded in DHIS2. Family planning service delivery data from January to December 2017 was analysed.

Results: A total of 238,389 people (84% women and 12% men) were reached while 234,470 of them were provided with family planning health services out of which, 16,794 clients were reached through outreach activities with the rest being walk-ins. 25% (n=59,144) of the clients reached were new users of family planning. 26 % (62,015) of clients attended to were adolescent and youth with 74% being women above 25 years of age. 63% of the clients preferred injections 15% implants, 12 % Pills 7 % intrauterine device. The Tunza franchise contributed to 7.3% of the national family planning performance with long acting reversible contraceptives contributing to an average of 7.5%.

Conclusion: Social franchising is a reliable service delivery channel that is providing Kenyans with an opportunity to access quality contraceptive services. The contribution of the Tunza franchise to the national dashboard is a significant indicator of the project success towards increasing access to quality health services.

TUPE349

Clinical mentorship for improved provision of long acting reversible contraceptive methods: a case of KMET project sites in Kenya;

Caroline Nyandat | KMET, Kenya

Significance/background: Despite successes of Sexual Reproductive Health and Rights (SRHR) strategies for reduction of maternal mortality, Kenya faces challenges of non-training, which leads to health care workers' inability to consistently translate knowledge, and skills into practice. KMET implemented clinical mentorship in 22 facilities in Kisumu, Siaya and Migori Counties, aimed at improving the skills and knowledge of health care workers; to provide a platform for practical training and consultation among professional and mentees for delivery of sustainable quality clinical care.

Program intervention/activity tested: A mentorship guide for providing oversight, coordination and support to mentorship activities was developed for utilization by public and private facilities. KMET incorporated Ministry of Health (MoH) as regulator and coordinator of health sector, for sustainable service provision; they supervised and offered technical support, and formed the County Mentorship Support Unit (CMSU) for provision of SRHR guidance on: clinical contraceptives; adherence to applicable clinical standards, guidelines, protocols and reporting; and problem-solving skills and documentation.

Methodology: K-MET trained MoH RH coordinators as mentors, for mentorship and support needs. Mentors trained 66 providers on long acting reversible contraceptive methods (LARC), with continuous mentorship sessions provided; these activities were documented in mentorship supervision tools. Providers were tasked with responsibility of doing 20 LARC procedure (10 implants and 10 IUCD insertions) to attain competency.

Results/key findings: Ten mentors established across the counties. Mentorship guide developed with data collection tools. Increased uptake of LARC services from 12% (9,205) to 56% (43,774) in the year 2016-2017. About 89% of providers (58) reported improved skills in provision of LARC services and graduated as mentors.

Program implications/lessons learned: Development of joint mentorship plans between a mentor and mentee ensures efficient clinical support and mentorship.

TUPE350

Analysis of factors affecting leadership training knowledge transfer within a health system context: learning from the experience of Kenya's Healthcare Leaders; **Tecla Chelagat | Strathmore Business School, Kenya**

Knowledge transfer in organisations is evidently being recognized as a key determinant of organisational competitiveness. Research evidence confirms that the conditions under which knowledge is transferred has great influence on organisational performance improvement. However, even though organisations are realizing positive impact of knowledge on performance, drivers and barriers for successful knowledge transfer in different scopes and contexts are under-represented. The study sought to bridge the current gap between theoretical perceptions on knowledge transfer and the leadership reality today. This is achieved through identification and analysis of factors affecting leadership knowledge transfer in healthcare organizations in Kenya.

Mixed methods design without a random assignment was adopted, to provide evidences on effective strategies for transferring knowledge as well as its facilitators and barriers. The study participants were 39, Strathmore Business School, healthcare leadership, management and governance (LMG) program alumni. The group were trained between the year (2011-2016) from 19 counties in Kenya, from the public, private and faith-based health sector. The results indicate that transfer mechanisms related positively with the extent to which managers supported and reinforced the use of learning on-the-job ($P=0.021$); the extension to which training is designed to give trainees ability to transfer learning to job application and training instructions match the job requirement ($P=0.027$); and the opportunity to use the learning at work environment ($P=0.022$).

The results provide evidence that ability scales (transfer design and opportunity to use learning) and work environment scale (supervisors support to use learning) plays a mediating role between the training learning and performance improvement, in a healthcare leadership context. The study concludes with recommendations that can be integrated successfully and inform future programs design and partnerships within the health system healthcare organisations towards maximization of knowledge transfer process from classroom setting to work environment

TUPE351

Training Anambra State primary health workers on medicine management and provision of management tools: Steps towards strengthening the delivering of primary health care; **Chinyere Okeke | University of Nigeria, Nigeria**

Background: Medicines are key determinants of population health and of society's trust in the quality and viability of health systems. It's availability is facilitated by the presence of stock management tools in the primary health centres (PHCs) which have been neglected over the years. Medicine management involves selection, quantification, procurement, storage, distribution, proper prescribing, packaging, dispensing and counselling and these tasks require qualified health workers with appropriate skills.

Objectives: To assess the effect of training PHC workers and providing medicine stock management tools for effective medicine management practices in the PHCs in Anambra State.

Methods: The study was undertaken in 132 PHCs in Anambra State, Southeast Nigeria. The intervention included provision of medicine stock cards and training on essential medicine management. Data was collected using an observational check list, a pretested questionnaire administered to health workers in-charge of the facilities before the intervention and 6 months after intervention and in-depth interviews. Data was analysed using SPSS and manual content analysis.

Results: Six months after intervention, of the 132 facilities, knowledge score improved from 31 (23.5%) to 97(73.5%), while practice score improved from 40 (30.3%) to 81(61.4%) and both were statistically significant (P =0.000..). Mean scores and standard deviation before and after for knowledge (6.10±2.48 and 8.78±2.24) and practice (6.06±3.32 and 8.49±3.37) of medicine management was found to be statistically significant. Reasons for current practices were found to be lack of training and supportive supervision and lack of regular supply and harmonization of drug stock tools in the State.

Conclusions and recommendations: The training led to reduced medicine stock-outs, improved availability and use of medicine stock management tools and proper storage and prescription of medicines. It is therefore recommended that such trainings and interventions should be scaled up in all the PHCs to ensure availability of quality medicines in the PHCs.

TUPE352

Pattern of implementation of Emergency Obstetric Life-saving Skills (EmOLSS) in Health Facilities in Southeastern Nigeria; **Ugwu Scholastica¹, Adewusi Oluwafemi¹, Oshiname, Frederick¹ | ¹University of Ibadan, Nigeria**

Introduction: Nigeria accounts for 15% of the global maternal death burden with 109 women dying daily from pregnancy and childbirth preventable causes. Maternal mortality and morbidity can be minimized if adequate timely emergency obstetric life-saving skill (EmOLSS) care is provided especially at the local government primary health centres.

Methods: A cross-sectional descriptive study conducted among 167 purposively selected community health workers in Nsukka Local Government Area of Enugu state. A pre-tested, paper-based questionnaire was used for data collection. Descriptive statistics and ordered logistic regression were utilized for analysis with $p < 0.05$. Ethical approval was obtained from the UI/UCH Ethical Review Committee.

Results: The mean age was 39.5 ± 8.17 years. Almost all, (99.4%) were female, 43.7% had 11-20 years working experience and there were more Community Health Extension Workers (61.7%) than other qualifications. Pattern of core EmOLSS showed that 8.4% always use partograph, 60.8% use oxytocin for active management of third stage of labour, 4.2% perform assisted vagina delivery using vacuum extractor. Only 15% had high level of confidence in carrying out intrapartum and postpartum EmOLSS activities. Increased workload (66.3%), poor cooperation of clients (66.3%), influence of relatives (73.5%), poor electricity supply (81.3%), inadequate staffing in the labour ward (78.4%), inadequate training (76.6%), inadequate supportive supervision (91.0%), poor motivation (72.5%) were factors influencing the pattern of implementation. Increased workload, inadequate staffing, poor working conditions predicted the pattern of implementation while poor basic knowledge of EmOLSS and lack of time predicted the level of confidence of the health workers.

Conclusion: The study showed poor pattern of implementation of EmOLSS and low level of confidence among the health workers. Regular training, provision of basic amenities and motivations will be beneficial for ensuring improvement in the quality of care and reduction in maternal mortality.

Keywords: Emergency Obstetric Life Saving Skills, maternal health, pattern of performance

TUPE353

Perceived male involvement of family planning improved intention to use among women of pastoralist communities in Ethiopia: ordinal logistic regression analysis; **Afewerk Mulugeta¹, Araya Abrha Medhaniye¹, Mussie Alemayehu¹ | ¹Mekelle University, Ethiopia**

Background: Intention to use of family planning (FP) predicts the behavior which leads to actual use of FP. Male involvement in FP would bring a significant change in intention to use of FP. However, there is a scarcity of evidence on the role of perceived male involvement on intention to use FP methods in Pastoralist community.

Methods: A community based cross-sectional study was conducted from August 8-29, 2017. A cluster sampling technique was employed to select 891 women of reproductive age. Partial proportional odds model of ordinal logistic regression analysis was used to analyze the intention to use family planning methods with R software version 3.5.1. A Vector Generalized Additive Model (VGAM) package with vglm function was used to run the model. Assumptions of ordinal logistic regression; proportional odds and multicollinearity were checked using usdm and brant package. A p-value <0.05 was used to declare statistical significance.

Results: 464 (52%) of the respondents had high intention to use family planning (FP) methods. The odds of high versus the combined categories: moderate and mild intention to use of FP for high perceived male involvement (OR = 3.2; 95% CI: 2.21 – 4.68), moderate perceived male involvement (OR = 2.4; 95% CI: 1.51 – 4.04), perceived behavioral control (OR = 1.09; 95% CI: 1.02 – 1.16), and being polygamous women (OR = 1.4; 95% CI: 1.1 – 1.97). Besides, the predictors for the odds of high and moderate versus mild intention to use of FP were subjective norm (OR = 0.97; 95% CI: 0.95 – 0.99), having abortion (OR = 0.67; 95% CI: 0.46 – 0.97) and perceived behavioral control.

Conclusion: Perceived male involvement was the strongest predictor of improved intention to use FP.

TUPE354

Level of utilization and associated factors of reproductive, maternal and neonatal health services among women from pastoralist communities of Afar Region, Northern Ethiopia: a cross sectional survey; **Mussie Alemayehu¹, Afework Mulugeta¹, Araya Abrha Medhanyie¹, Kibrom Berhanu¹, Yemane Gebremariam¹, Tesfay Hailu¹, Selemawit Asfaw¹, Mohammed Ahmed² | ¹Mekelle University, Ethiopia, ²Samera University, Ethiopia**

Background: The provision of quality and improved uptake of reproductive, maternal and neonatal health services is key to prevent complications during and following pregnancy and childbirth. However, the uptake of the reproductive, maternal and neonatal health services in the Afar region of Ethiopia has been low.

Methods: A community-based cross-sectional study was conducted among 1978 women with 0 to 24 months old children. Multistage sampling technique was employed to recruit the study participants. Multivariate logistic regression analysis was used to identify the effect of independent predictors on utilization of Reproductive, Maternal and Neonatal Health services.

Results: The utilization of four and above antenatal care visits, institutional delivery, postnatal visits within 7 days, and current use of family planning was 443(22.4%), 322(16.7%), 61(3.1%) and 107(5.5%), respectively. About one third, 686(34.7%) of the women had good Reproductive, Maternal and Neonatal Health services utilization. The odds of Reproductive, Maternal and Neonatal Health service utilization was 2.8 times (AOR = 2.8; 95%CI: 2.0, 3.9) higher among educated women. Women with non-pastoralist husband occupation and women living within walking distance of less than 30 minutes from the nearby health facilities were 2.1 (AOR = 2.1; 95%CI: 1.6, 2.9) and 2.6 times (AOR = 2.6; 95%CI: 2.1, 3.3) more likely to utilize the services than their counterparts, respectively.

Conclusion and recommendation: The overall Reproductive Maternal and Neonatal Health service utilization was low. Lack of awareness about the importance of Reproductive Maternal and Neonatal Health service utilization was deeply rooted in the study participants for its low coverage. Reproductive Maternal and Neonatal Health service utilization was not uniform across all zones of the region and it becomes different in education status of women, husband occupation and distance. Empowering women on making decision making is crucial for increasing RMNH service utilization

TUPE355

Risk factors for acute childhood diarrhea: a cross sectional study comparing refugee camps and host communities in Gambella Region, Ethiopia; **Getachew Kabew Mekonnen | Addis Ababa University, Ethiopia**

Background: Diarrhea is one of the most common causes of child morbidity and mortality in refugee camps, aggravated by inadequate WASH services and nutritional deficiencies, particularly in developing countries.

Objective: The study objective was to assess acute diarrhea and associated risk factors among under-five children in the refugee camps and host communities in Gambella Region, Ethiopia.

Methodology: A comparative cross-sectional study was conducted from September to December 2016 using a structured questionnaire and the Potatest+ water quality testing kit. Bi-variate and multi-variable models and the Mann-Whitney U test were used. P-values < 0.05 with 95% confidence interval [CI] were considered statistically significant.

Result: Prevalence of childhood diarrhea was 38 % in the refugee camps and 33% in the host communities. Child age and maternal education were the common predictors of childhood diarrhea in both communities. Households of children in which the water containers were not covered, consumed less than 15 liters of water per capita per day and lacked hand washing setups were specific predictors of diarrhea in refugee camps. In the host communities, children of households which did not have a latrine and consumed surface water had significantly a higher risk of diarrhea than their corresponding households. Households with heads without formal education, surface water source, water shortages and unavailability free residual chlorine were determinants of fecal coliform contamination of stored water. Coliform counts exceeded the moderate risk were associated with acute childhood diarrhea [P = 0.002].

Conclusion: Diarrhea burden was significantly higher among children in the refugee camps than in the host communities. Hygiene related factors and facility problems were the main predictors of diarrhea in the refugee camps and host community, respectively. Therefore, further collaborations between government and non-government organizations are required to identify persisting factors of diarrhea transmission and draw relevant resolutions in the region.

TUPE356

Endemicity of Toxoplasmosis in Three Villages among Children and Pregnant Women in Ghana; **Agordzo Samuel Kekeli¹, Mutala Abdul-Hakim¹, Kingsley Badu¹, Dawood Abbas Ackom¹ | IKwame Nkrumah University of Science and Technology, Ghana**

Background: Transmission of *Toxoplasma gondii* can occur during pregnancy. The outcome of which is fatal, leading to neurological, brain and ophthalmic disorders subsequently in life. Other studies in Ghana reveal prevalence of 83.6% and 58.0% in pregnant women and children respectively. This study aims at determining the endemicity and associated risk factors of toxoplasmosis in three villages among children and pregnant women in Ghana.

Methods: 110 pregnant women aged between 16–45 years with a mean age of 28.6 who consented and 38 children aged from 8 months–14 years, of mean age 5.9 whose parents gave their consent were included in the study. Venous blood samples were taken into EDTA anticoagulant tubes and Toxo IgG/IgM rapid diagnostic test kit was used to test for the presence of anti-*T. gondii* immunoglobulins G and M. Forty microliters (40 μ L) of each blood sample was blotted onto whattman filter paper for PCR.

Results: Overall prevalence of 56.4% (62/110) was observed for the pregnant women. Out of these, 18/62 (29.0%) were in their first trimester and 22/62 (35.5%) in both second and third trimesters were seropositive. No pregnant woman was positive for IgM. Overall prevalence of 8/38 (21.1%) was observed for children, of which 2/38 (5.3%) were under 5 years, 2/38 (5.3%) from 5 to 10 years and 4/38 (10.5%) from 11 to 14 were seropositive for *T. gondii* IgG and IgM. A child, 1/38 (2.6%) was seropositive to IgM. P-values >0.05 was obtained for being a child, pregnancy and seropositivity. Ownership of cat and contact with cat litter with p values < 0.05 have been associated with infection.

Conclusion: Seropositive results for pregnant women in second and third trimester indicates infection early in pregnancy. There is therefore a 70.1% chance of transmission to the foetus. Further studies will include CSF and HIV patients.

TUPE357

Factors affecting access to immunization services in the intergrated outreach model in Loima; **Getrude Nasike Barasa¹, Daniel Esimit Echakan¹, Job Okemwa Ongubo¹, Ben Onyango-Osuga², Musa Oluoch² | ¹Ministry of Health, Kenya, ²Kenya Methodist University, Kenya**

Background: In efforts to prioritize initiatives that reach vulnerable hard to reach and migrant populations with essential health services in developing countries and curb vaccine preventable diseases, integrated community-based outreaches has been used as an alternative model for health service provision including routine immunization. This study was conducted with an objective of assessing the factors affecting access to immunization services through the integrated outreach model with emphasis on the influence of demand creation strategies, health leadership practices, logistical management practices and human resource capacity in provision of immunization services.

Methods: The study done in Loima sub-county, used a cross sectional design which involved collection of both qualitative and quantitative data. Cochran's formula was used to determine sample size. A total of 349 households with children 0≤23 months were interviewed and further information obtained through review of health records both at facilities and Sub County level. Data was analyzed by use of SPSS version 22 and presented in graphs, tables and charts.

Results: Among the factors affecting access to immunization services through the outreach model, leadership was found to be the important factor ($r=0.817$), followed by demand creation ($r=0.798$), logistics management ($r=0.719$) and human resource capacity ($r= 0.709$) respectively. Male (83%) participants more than female (17%); 69% were illiterate; 36% pastoralist and most lived far from nearest health facility: 46%>5 km

Conclusions and Recommendations: The study found that the integrated outreach model has increased number of immunized children in the Sub-County owing majority are nomads, where presence of coordination mechanism and logistical support facilitated model's functionality while poor information flow between outreach teams and communities, inadequate trained staff and high illiteracy (69%) impacted negatively. The study recommends more logistical assistance in transportation of vaccines, increased social mobilization and conducting frequent training to healthcare workers and community health volunteers.

TUPE358

Dietary fiber intake and metabolic syndrome risk factors among young South African Adults; **Machoene Derrick Sekgala¹, Zandile Mchiza², Whadi-ah Parker¹, Daniel Kotsedi Monyeki³**; ¹Human Sciences Research Council, South Africa, ²University of the Western Cape, South Africa, ³University of Limpopo, South Africa

Background: Public Financial Management for meaningful impact on health status of communities. This study attempts to bridge the research gap regarding the saving of public resources in the health facilities by providing the importance of dietary fiber in reducing metabolic syndrome (MetS) risk factors in young rural South Africans. **Methods:** A total of 627 individuals aged 18–30 years that are part of Ellisras Longitudinal Study (ELS) from rural South African participated in the study. Dietary intake was measured using a validated 24-h recall method. Anthropometrics, blood pressure (BP), fasting blood glucose (FBG), and lipid profiles were measured according to standard protocols.

Results: According to the definition of the International Diabetes Federation (IDF), the prevalence of MetS was 23.1%. Overall, the total median [interquartile range (IQR)] values for total, insoluble, and soluble fiber consumed were 4.6g [0.0–48.9], 0.0g [0.0–18.0], and 0.0g [0.0–15.0], respectively. Females had a higher median [IQR] intake of total (5.1g [0.0–48.9] vs. 4.3g [0.0–43.9]), insoluble (0.0g [0.0–18.0] vs. 0.0g [0.0–12.0]), and soluble fiber (0.0g [0.0–14.9] vs. 0.0g [0.0–7.3]) than males, respectively. The mean values for waist circumference (WC), FBG, and total cholesterol were higher in females than males (82.20cm vs. 75.07cm; 5.59mmol/L vs. 5.44mmol/L; and 4.26mmol/L vs. 4.03mmol/L, respectively), with significant differences observed for WC and total cholesterol ($p < 0.001$ and $p = 0.005$, respectively). More than 97% of participants had fiber intakes below the recommended levels. After adjusting for all potential confounders (total fiber was inversely associated with FBG ($\beta = -0.019$, 95%CI [-0.042 to 0.003], $p < 0.05$), systolic blood pressure (SBP) ($\beta = -0.002$, 95%CI [-0.050 to 0.002], $p < 0.05$) and high-density lipoprotein cholesterol (HDL-C) ($\beta = -0.085$, 95%CI [-0.173 to 0.002], $p = 0.051$)).

Conclusion and recommendations: This study may be of public health relevance, providing a potential link between less dietary fiber intake and FBG and both systolic and diastolic BP. This observational data encourages public health policy measures to increase the consumption of dietary fiber in rural communities in order to lower the burden of MetS. Therefore, an emphasis on food high in fiber might be safe, effective and low-cost approach to reducing risk factors of MetS.

TUPE359

Proportion of surgical site infection and associated factors among cesarean deliveries in Debretabor general hospital, Debretabor, Northwest Ethiopia, 2017: Institution based cross sectional study; **Twodros Seyoum | University of Gondar, Ethiopia**

Background: Cesarean section rates have been increasing dramatically during the past three decades and surgical site infections are becoming a leading cause of morbidity and mortality among women undergoing cesarean deliveries. However, there is lack of sound evidence on both the magnitude of the problem and the associated factors in developing countries including Ethiopia. The purpose of this study was to assess proportion of surgical site infection and associated factors among women undergoing cesarean delivery in Debretabor General Hospital in 2017.

Methods: An institution based cross sectional study was conducted from May to December 2017. All women delivered by cesarean section in Debretabor General Hospital during data collection period were study population. Census sampling was used to enroll 347 study participants. Data were collected using Pre-tested, semi-structured questionnaire/ data extraction tool and post discharge phone follow up and analyzed using SPSS version 20.

Logistic regression model was used to determine the association of independent variables with the outcome variable and odds ratios with 95% confidence interval were used to estimate the strength of the association.

Results: About 8 % (95%CI: 5.4, 11.6) of cesarean deliveries developed surgical site infection. Pregnancy induced hypertension (AOR = 4.75, 95%CI: 1.62, 13.92), chorioamnionitis (AOR=4.37, 95%CI: 1.53, 12.50), midline skin incision (AOR=5.19, 95% CI: 1.87, 14.37) and post-operative hemoglobin less than 11gram/deciliter (AOR=5.28, 95%CI: 1.97, 14.18) were significantly associated with surgical site infection.

Conclusions: Proportion of surgical site infection following cesarean deliveries in Debretabor general hospital was similar with proportion of other studies done in this country. Pregnancy induced hypertension, chorioamnionitis, midline skin incision and post operative hemoglobin of less than 11gram/deciliter were independent factors associated with surgical site infection. Further research capable of enrolling the whole study participants and minimizing possible information bias is recommended

TUPE360

A high prevalence of attention deficit Hyperactivity disorder among Cameroonian medical students: a cross-sectional study; **Karl Fai Njuwa¹, Larissa Pone Simo², Limnyuy Loweh Ntani³, Azumesi Nguni Forchin⁴, Chirsir Parviel⁵, Frank-Leonel Tianyi⁶, Nsah Bernard⁷, Ndip Valirie Agbor¹ | ¹Ibal Sub-divisional Hospital, Oku, Northwest Region, Cameroon, ²University of Bamenda, Cameroon, ³GiftedMom, Yaoundé, Cameroon | Department of Dental Surgery, ⁴Mbingo Baptist Hospital, Cameroon, ⁵Université Catholique de l'Afrique Centrale, Cameroon, ⁶Mayo Darley Sub-divisional Hospital, Cameroon, ⁷University College London, United Kingdom**

Introduction: Attention Deficit/Hyperactivity Disorder (ADHD) is a chronic psychiatric disease associated with poor productivity, poor school performance, substance abuse, employment difficulties and a significant negative impact on the quality of life. We sought to determine the prevalence and factors associated with symptoms of ADHD among medical students in a sub-Saharan African setting.

Methods: This was a web-based cross-sectional study including medical students from seven medical schools in Cameroon. The study was carried out from the 24th of June to the 2nd of September 2018. All non-medical students and all medical residents were excluded. Qualitative data were summarized using proportions and bar charts, whereas the median and interquartile mean were used to summarize quantitative data. Multivariate logistic regression was used to identify factors independently associated with ADHD in the study population. P-values below 0.05 were considered statistically significant. The Statistical Package for Social Sciences v23.0 was used for analysis.

Results: We had a total of four hundred and ninety-one eligible participants. The mean age was 23.4 + 2.6 years with 54% of our study population being females ($p=0.830$). We found the self-reported symptom prevalence of ADHD to be 24.4% with a female predominance (55.8%). Histories of chronic disease (adjusted OR [AOR] = 2.87; 95% CI = 1.45 – 5.68); $p<0.002$), anxiety disorder (AOR = 2.08; 1.27 – 3.40; $p<0.004$) and severe depression (AOR = 3.37; 95% CI = 1.76 – 6.45; $p<0.001$) were found to be independently associated with the symptoms of ADHD. 17.2% of the variability in our outcome variable was explained by the independent variables.

Conclusion: ADHD is a highly prevalent disease among medical students, and is associated with severe depression, anxiety disorders and chronic diseases. We recommend screening of the disease among Cameroonian medical students, with follow up clinical confirmation and treatment as per the guidelines.

TUPE361

Contextualizing Information, Education and Communication (IEC) materials for early cancer control in Kenya; **Nelima Otipa¹, Hildah Essendi¹ | ¹Population Services, Kenya**

Introduction/ Background: Cancer is a leading cause of death accounting for 7% of annual deaths in Kenya despite being preventable with early diagnosis and treatment. In fact 80% of reported cancer cases in Kenya are belatedly diagnosed and treated. Various strategies have been applied to encourage early diagnosis and treatment of cancer, including the use of various communication channels although most of the Information, Education and Communication (IEC) materials available in Kenya has not been contextually appropriate and has therefore been underutilized. To help address this gap, a formative research on cancer Knowledge Attitudes and Practices (KAP) was conducted to inform the design of IEC materials that are contextually-appropriate.

Methodology: Qualitative methods were used that combined in-depth interviews (IDI) with cancer patients, caregivers, expert stakeholders and health professionals with semi-structured focus-group discussions (FGD) involving cancer survivors and members of the general population in Uasin Gishu and Nairobi counties. The interviews with cancer patients and caregivers were carried out at Kenyatta National Hospital and Moi Teaching and Referral Hospitals. The total qualitative sample consisted of nine FGDs and 56 IDIs. Audio-recorded data from the interviews was transcribed and coded using N-Vivo.

Results: Most respondents felt that there was a language barrier because most cancer communication was in English and the content was too technical. Most respondents in rural areas trust traditional health practitioners and thus visit them after a diagnosis for advice and treatment.

Conclusion: IEC materials should be in local languages and medical jargon avoided. Where possible, materials should be translated in local dialects. Furthermore, since they are trusted, there is an opportunity to integrate traditional health practitioners in the cancer journey as messengers or given specific roles as advisors in various issues such as nutrition. The traditional health practitioners should thus complement and not replace orthodox healthcare.

TUPE362

Etiologies of Diarrhea and Drug Susceptibility Patterns of Bacterial Isolates among Under-Five Year Children in Refugee Camps in Gambella Region, Ethiopia: A Case Control Study; **Getachew Kabew Mekonnen | Addis Ababa University, Ethiopia**

Infectious diarrhea, the most common form of diarrhea causes substantial morbidity and mortality among children in developing countries, and the muddled use of antibiotics needs caution due to potential problems of drug-resistance, side-effects and cost of treatment.

Objective: The aim of this study is to identify etiologies of diarrhea and drug susceptibility patterns of bacterial isolates in under-five children in refugee camps in Gambella Region, Ethiopia.

Methods: An institution- based matched case control study was conducted using a questionnaire-based interview from June to December 2017 in Pugnido and Teirkidi refugee camps. Stool samples were collected and diarrhea etiologies identified by wet mount microscopy and conventional culture supplemented with API 20E identification kit. Antibiotic susceptibility of bacterial isolates was investigated by using the disk diffusion method. Pathogenicity was analyzed using McNemar test or Fisher exact test with a level of significance of P 0.05.

Result: The overall prevalence of enteric pathogens were 55 (41.0 %) in diarrhea cases and 18 (13.4 %) in healthy controls. The prominent detected etiology was include *Giardia lamblia* (28) followed by *Shigella* spp. (16) and *E. hystolytica/dispari* (13). All bacterial isolates were sensitive to kanamycine and ceftazidime. The high resistance rate was observed against ampicillin (100%), amoxicillin (100 %), erythromycin (52%) and chloramphenicol (47.5 %). The majorities of the isolates had a low rate of resistance to ciprofloxacin (8.7 %), nalidixic acid (8.7 %) and amikacin (13 %).

Conclusion: *Giardia lamblia*, *E. Hystolytica/dispari*, and *Shigella* spp are the major etiologies of diarrhea in children in the studied refugee camps. The study also showed that significant numbers of bacterial isolates resist the commonly used antimicrobial drugs. Therefore, improving clinical laboratory services and promoting evidence-based drug prescription may reinforce proper use of antibiotics and reduce the emergence of microbial resistance.

TUPE363

Prevalence of Salmonella Typhi among food vendors in Mampong municipality; **Baffour Awuah Albert¹, Dennis Dekugmen Yar¹ | ¹University of Education, Winneba**

Background: World Health Organization (WHO) estimates the global typhoid fever disease burden at 11-20 million cases annually. The disease continues to be a public health problem especially in the developing countries. This study therefore determined the proportion of medically certified food vendors and isolate and identify Salmonella typhi from the food vendors in Mampong Municipality.

Methodology: A multistage sampling technique was use in data sampling in which the study area Mampong, was divided into five (5) clusters. A structured questionnaire was administered. A stratified sampling method was used to sample 101 stools out of the 140 food vendors interviewed. Collected Stool samples were emulsified with normal saline with first (10-1) and second (10-2) serial dilution and 500µml of both the each was inoculated on Salmonella Shigella (SS) agar, and incubated at 37°C overnight. Salmonella typhi was identified by using Triple Sugar Iron agar (TSI).

Results: 82.9% of respondents were females. 25.7% of them had no formal education. 34.3% of the food vendors had not undergone any medical examination. 39.3% food vendors have no certificate to sell food. 4 out of the 5 Salmonellae isolated were S. typhi giving Salmonella typhi rate of 4.0% and the other 1, non-typhoidal Salmonellae species.

Conclusions and Recommendation: The study confirmed that there was a problem with contamination of street foods therefore a regular monitoring such as public education training and medical examination for food vendors is recommended.

Key words: Salmonella typhi, Medical examination, Food vendors, Monitoring

TUPE364

Dis-respectful and abuse maternal care and its associated factors during childbirth in Woldia General Hospital and Lalibela Primary Hospital, Northeast Ethiopia; **Melese Linga | Woldia University, Ethiopia**

Background: Dis-respectful care is comprehensive term which is expressed in the form of physical abuse, non-consented care, non-confidential care, non-dignified care, discrimination based on specific patient attributes, abandonment of care, and detention in facilities. Even though some study conducted in Addis Ababa Governmental health institution. As far as the researcher knowledge there is little research on the level of disrespect and abusive care among women during childbirth in the region particularly in the study Area.

Objectives: To assess dis-respectful and abuse maternal care and its associated factors during childbirth in Woldia General Hospital and Lalibela primary Hospital, Northeast Ethiopia

Methods: An institutional based quantitative cross-sectional study design was employed from June 20/2009–August 30/2009. E.C and sample size was 394. stratified systematic random sampling was applied. Data was collected by using structured questionnaire adopted from White Ribbon Alliance Declaration of women's right during Child birth. Data was entered in EpiDATA version 3 and analysed by using SPSS version 20. Descriptive statistics were used to present the data. Binary and multivariable logistic regression were performed, 95% CI with P-Value < 0.05 were considered as significant.

Result: A total of 382 respondents were interviewed with a nonresponse rate 3%. The proportion of dis-respectful care among child-bearing women was 47.1%. attending at general hospital (AOR =0.131, 95% CI: 0.066–0.261), history of antenatal care follow-up previously (AOR =2.080, 95% CI: 1.277–3.390), being one birth attendant (AOR =0.29, 95% CI: 0.1–0.845), being two birth attendant (AOR =0.568, 95% CI: 0.35–0.923) were significant association dis-respectful and abuse care

Conclusion and Recommendation: The proportion of D&A was high in this study as compared to local and international studies. Prompting compassionate respectful care for women and Comprehensive type of research from provider and women's perspective will be essential to know the factor.

TUPE365

Mapping of Urinary Schistosomiasis in Anambra State, Nigeria; **Ndukwe Yvonne¹, Aguzie Oscar¹, Obiezue Rose¹ | ¹University of Nigeria, Nigeria**

This study mapped urinary schistosomiasis in Anambra State. Geographic Information System (GIS) was used to map the distribution of schistosomiasis in the state. With the aid of GIS, the distance of the towns sampled to water bodies was calculated. A total of 450 urine samples collected from the nine LGAs sampled were examined for haematuria and *Schistosoma haematobium* eggs. Questionnaire was used to assess exposure/risks status to infection. The urine samples were examined for haematuria using dipstick and microscopy. Overall prevalence of infection in the study was 2.9% and 5.5% for microscopy and haematuria respectively. Prevalence of schistosomiasis was different between the districts, and this was statistically significant ($\chi^2 = 7.763$, $p = 0.021$). Prevalence of urinary schistosomiasis in the towns had a significant negative linear relationship with distance to water body ($r = -0.767$, $p = 0.016$). Based on infection status from microscopy, the adjusted odds of infection in fishers was over 103 times higher than in students; the difference was significant statistically (AOR = 103.0443, 95% CI = 4.6278 – 7093.972, $p = 0.0114$). People that washed things in stream had 12 times significantly greater odds of infection than those that did not (AOR = 12.4585, 95% CI = 1.9590 – 258.8108, $p = 0.02542$). The distance of respondents to stream was a major determinant of infection with urinary schistosomiasis in the State. Those that lived close to water were approximately 1131% more likely to be infected than those that lived far from water bodies (AOR = 11.3157, 95% CI 2.2473 – 90.6889, $p = 0.00713$).

Anambra State is endemic for urinary schistosomiasis and there is therefore need for focal studies. The study also provides relevant information for designing a plan of action for the selective integrated and targeted control of urinary schistosomiasis in the LGAs.

TUPE366

Human Papillomavirus (HPV) with low risk and high oncogene risk involved Oto-Rhino-Laryngology (ORL) tumors in Burkina Faso;
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Background: Among ORL tumors, there is a subgroup associated with oncogenic or non-oncogenic human papillomaviruses (HPVs). Low-risk HPV (HPV-BR) is most commonly associated with mild infections such as laryngeal papillomatosis, which involves the child's vocal and vital functional prognosis. The objective of this study is to characterize, by real-time PCR, low-risk and high-risk oncogenic HPVs implicated in histologically confirmed ORL tumors in Ouagadougou.

Methods: This was a descriptive cross-sectional study of archived tissues (175 blocks) obtained in the last ten years (2007 to 2017) in Yalgado CHU Cytology Pathology Anatomy Labs. Shiphra Clinic, Sandof Clinic and Philadelphia Clinic in Burkina Faso. Molecular analyzes were performed at CERBA / LABIOGENE.

Results: Of the fourteen HPV-HR genotypes tested, nine were identified. The prevalence of HPV-HR infection was 14.3% and HPV-BR (6 and 11) was 25.7%. The most common genotypes were: HPV56, HPV33 for ENT cancers (128/175) and HPV11, HPV6 for laryngeal papillomatosis (31/175) and for nasal and oral papillomas (16/175): HPV33, HPV11 and HPV6.

Conclusion: The results show the implication of a genetic variability and a high prevalence of HPV in ENT infections. Hence the need to ensure an HPV vaccine coverage adapted to the pediatric population for effective management.

Keywords: HPV-HR; oncogene; ORL; laryngeal papillomatosis

TUPE367

Assessment of quality of medical laboratory services provision and associated factors in public health facilities at Gondar Town, Amhara Regional State, Northwest Ethiopia; **Belete Biadgo Mesfine | University of Gondar, Ethiopia**

Background: A quality medical laboratory service is an important part of the health care system. In developing countries like Ethiopia, laboratory the quality system remains weak due to several factors. The study aims at assessing factors affecting the quality of medical laboratory service in Gondar town public health facilities, Amhara regional state, Northwest Ethiopia

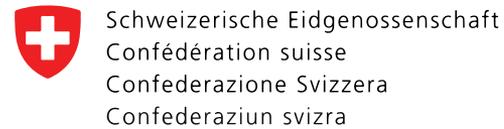
Methods: Institution based cross-sectional study was conducted at Gondar town governmental health facilities from March to April 2018. A pretested self-administered semistructured questionnaire and checklist was used to collect the socio-demographic information of the study participants and to assess factors affecting the provision of quality of laboratory services. Data were checked for completeness, entered and analyzed by using SPSS version 20. Data was presented as tables and figures. The strength of association between the dependent and independent variables was assessed by the chisquare test. A P-value <0.05 was considered statistically significant.

Result: A total of 103 medical laboratory professionals participated in the study. Of these, 62(60.2%) were males. Majority of the study participants, 63(61.2%) were laboratory technologist. Of these, 72(69.9%) had not attended laboratory refreshment training and 93(90.3%) of participants were not satisfied with their salary. Sixty-three (63%) of the participants, reported that their laboratory did not provide quality laboratory service. Lack of quality and adequate equipment, non-adherence to standard operating procedures, lack of continuing professional development, unavailability of adequate supplies and reagent, lack of customer service management, lack of regular internal and external quality assessment activity, inadequate diagnostic service for all requested test, no result verification and laboratory safety were the major factors significantly associated with poor quality laboratory service(P<0.05).

Conclusion: In conclusion, sixty-three (63%) of participants reported that their laboratory did not provide quality laboratory services due to the shortage of quality and adequate equipment, reagent and lack of motivation and employees recognitions mostly affect quality laboratory service.

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