COMMUNITY HEALTH VOLUNTEERS CAN EFFECTIVELY IMPLEMENT DISEASE SURVEILLANCE OF PRIORITY DISEASES AT VILLAGE LEVEL IN KENYA

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ISSUE

- Most acute disease events first occur at the community level and takes time to become recognized and documented within the formal health system through the established health facility-based Integrated Disease Surveillance and Response (IDSR) reporting system
- Strengthening capacity for disease surveillance at community level is therefore vital to bridge the gap between the facility and the community by enhancing community participation in disease surveillance.

DESCRIPTION

- In 2009, the Ministry of Health, Kenya, in collaboration with Amref Health Africa, established a pilot project to introduce a Community Based Disease Surveillance (CBDS) system into three districts in Kenya.
- The project aimed to provide Community Health Volunteers (CHVs) with the capacity and means to identify, refer and report patients with suspected priority conditions, according to the national Integrated Disease Surveillance and Response (IDSR) strategy, to local health facilities for diagnosis and management.
- A national project steering team was created comprising senior officers from the Units of Disease Surveillance, Outbreak and Response; and Community Health Services, and Amref Health Africa.

Selection Criteria

- Confirmed seasonal H1N1 cases reported
- High burden of communicable diseases
- Areas with established community structure

Case definition

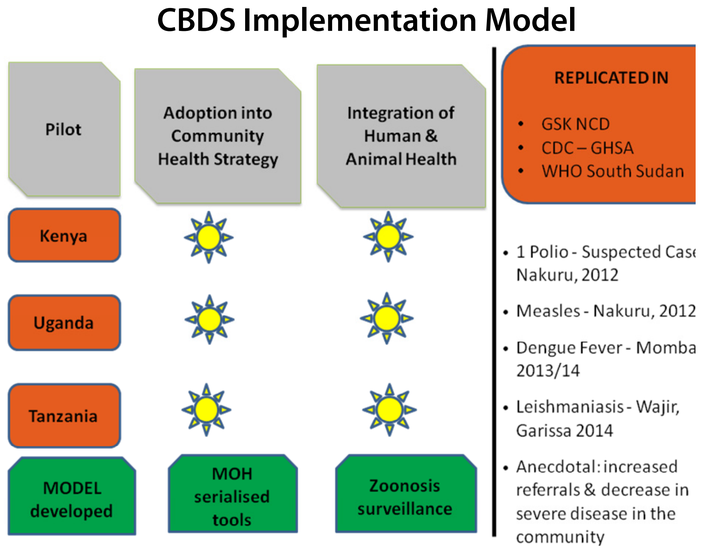
- National Integrated Disease Surveillance and Response (IDSR) priority diseases, used to develop Lay case definitions
- Priority diseases were grouped into major conditions with simplified lay case definitions.

PRIORITY DISEASES	CONDITION	SIMPLIFIED CASE DEFINITIONS
Childhood diarrhoea	Sudden diarrhoea	Any person with 3 or more watery or blood-stained diar
Cholera		stools in 24 hours
Diarrhoea with blood		
Childhood pneumonia	Chest problem	• Any person with cough and/or difficulty breathing a
Influenza-like illness		• Any person with body hotness and cough
Plague		
Tuberculosis (TB)		Any person with cough for more than 2 weeks
Typhoid fever	Fever (body hotness)	Any person with body hotness, or who has died after ar
Malaria		hotness. Body hotness is more serious if accompanied b
Meningitis		• drowsiness, confusion
Viral Haemorrhagic Fevers (VHFs)		• fits
Brucellosis		• skin rash
Leishmaniasis		• bleeding from nose, mouth, skin or other sites
Trypanosomiasis		• painful groin swellings
Plague		
Measles	Fever (body hotness) and rash	Any person with body hotness and widespread rash on f
Yellow fever	Sudden yellowness of eyes or skin	Any person with sudden yellowness of the eyes or skin f
Acute jaundice		weeks, with or without body hotness
New AIDS, cancer, diabetes	Severe weight loss	Any person with rapid weight loss and frequent illness,
Sexually Transmitted Infection	STI, urine problem	Any person with discharge, ulcer, pimple or itching on hi
Urinary schistosomiasis		Any person with blood in urine
Guinea worm	Skin worm	Any person with a worm emerging from the skin
Leprosy	Skin problem	Any person with a skin patch
Leishmaniasis		Any person with a skin ulcer or rapidly growing pimple
Anthrax		
Trachoma	Eye problem	Any person with soreness of the eyes or pus or watery d
Acute Flaccid Paralysis (AFP)	Sudden weakness or loss of movement of arms or legs	Any person less than 15 years with sudden loss of move arms or legs (not due to injury)
Neonatal tetanus (NNT)	Newborn tetanus	Any newborn who is normal at birth, then after 2 days i and has body stiffness
Severe malnutrition	Malnutrition	Any child less than 5 years with severe weight loss , swe change in hair colour
Animal bites	Animal bites	Any person who has been bitten or scratched by a dome
Maternal deaths	Maternal death	Death of a woman during pregnancy, childbirth, miscarr (6 weeks) after delivery or miscarriage
Neonatal deaths	Newborn death	Death of a newborn within 28 days of birth

Fig 1: Lay Case Definitions

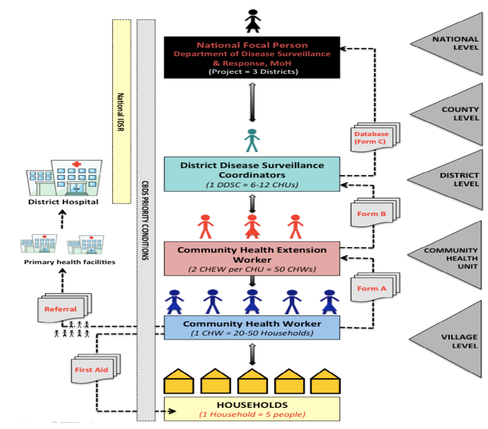
TRAINING APPROACH

- Sub-county Health Management Teams (SCHMTs) and Community Health Extension Workers (CHEWs) were trained on principles of IDSR and CBDS system
- CHEWs Trained Facility based Health care workers
- CHEWs trained Community Health Volunteers linked to their health facility.



Three districts in Kenya participated in the CBDS pilot project. A total of 64 CHEWs from 32 Community Health Units (CHUs) and 1600 CHVs were trained. The trained CHV employed a paper-based, hand-delivered reporting system, in compiling weekly house-hold reports. Reporting rate of CHVs, Health facilities including number of cases referred and attendance at health facilities were used to monitor the project.

Fig 2 Achievement of CBDS



LESSONS LEARNED

- Communities play a critical role in early detection, reporting, prevention and basic management of disease
- Communities are active and willing to participate in community disease surveillance but require both monetary and non-monetary incentives
- CHVs need more knowledge of First Aid; what they should do if they find a suspected case
- CHVs require recognition, feedback and structured discussions at link health facilities
- CHVs require continuous support supervision and mentoring
- CHVs need tools to educate households to improve health seeking behaviour.

NEXT STEPS

1. Introduce a community-based disease surveillance and mobile reporting system into selected sites.
2. Introduce a system of data analysis, mapping and communication between health service levels in real time.
3. Integrate the new system with existing MoH m-health platforms and CBHIMS.

RECOMMENDATIONS

- Investment in CBDS is a significant contribution towards global health security
- Investment in M-reporting System for community health volunteers (CHVs) to eliminate paper-based, hand-delivered reporting, and a web-based platform for community health extension workers (CHEWs) is crucial.
- Anticipated benefits of mobile phone data reporting:
  - » Reduced paperwork
  - » More rapid and accessible data
  - » Improved decision making