FACTORS INFLUENCING DELIVERIES AT HEALTH FACILITIES AMONG RURAL MAASAI COMMUNITIES IN MAGADI SUB-COUNTY, KENYA

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BACKGROUND

- Most childbirth among the Maasai community occur at home and is not assisted by skilled birth attendance
- Amref Health Africa in Kenya launched the "Boma" model in Magadi Sub-county to promote health facility delivery (HFD) by establishing community health units and training community health volunteers (CHVs) and traditional birth attendants (TBAs) as safe motherhood promoters
- The project's end-term evaluation revealed that HFD increased from 14% to 24% which is still considerably below the national average (61%)
- We therefore conducted this study to determine factors influencing HFD and describe barriers and motivators to the same.

METHODOLOGY

- A mixed methods cross-sectional study
- A questionnaire administered to women 18-45 years who delivered in the past 24 months
- In-depth interviews conducted with 16 women, 4 key decision influencers, 2 village elders and 4 TBAs.
- 3 focus group discussions conducted with health providers, chiefs and CHVs
- Adjusted odds ratios (AOR) and 95% confidence intervals (CI) using logistic regression were calculated to identify predictive factors for HFD
- Thematic analysis of qualitative data was conducted to describe barriers and motivators to HFD.

RESULTS

- Of the 200 women interviewed, 39% had delivered in a health facility
- Factors associated with HFD included not married [AOR 2.4 (95%CI 1.1-5.4)], low parity [AOR 0.7 (95%CI 0.5-0.9)], living near the health facility [AOR 2.2 (95%CI 1.1-4.4)] and belonging to the highest wealth quintiles [AOR 4.9 (95%CI 1.5-16.5)].

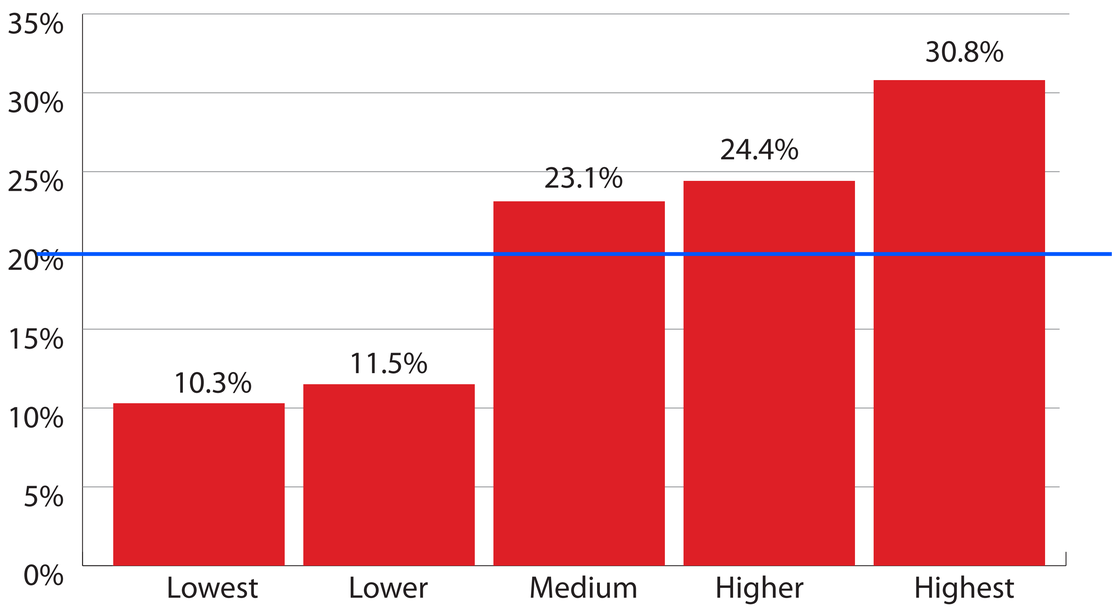

Fig 1: Distribution of wealth quintiles for women who delivered at the health facility

Table 1: Bivariate and multivariate analysis of the association between socio-demographic characteristics and health facility delivery among Maasai women

Characteristics	Total (%)	Delivered at HF		P-value	Unadjusted OR(95% CI)	Adjusted OR (95% CI)
		Yes n (%)	No n (%)			
Total sample	200(100%)	78(39%)				
Education level						
None (Ref)	137(68.5%)	38(27.7)	99(72.3%)	<0.001*	1	1
Primary	50(25.0%)	30(60.0%)	20 (40.0%		4.0(2.0,7.7)*	1.8 (0.8 , 4.01)
Post Primary	13(6.5%)	10(76.9%)	3(23.1%)		8.69(2.3, 33.3)*	2.3 (0.5, 11.3)
Age(Mean(SD))	25.8(7.3)	24.5(6.1)	27.0(7.7)	0.05*	0.94((0.90, 0.98)*	1.0 (0.9, 1.1)
Religion						
Others (Ref)	40 (25.0%)	15 (37.5%)	25 (62.5%)	0.828	1	
Christians	160 (75.0%)	63 (39.4%)	97 (60.6%)		1.08 (0.5, 2.2)	
Marital Status						
Polygamous (Ref)	73 (36.5%)	17 (23.3%)	56 (76.7%)	0.001*	1	1
Monogamous	104 (52.0%)	47 (45.2%)	57 (54.8%)		2.72 (1.4, 5.3)*	2.8 (0.7 , 10.1)
Curr not married	23 (11.5%)	14 (60.9%)	9 (39.1%)		5.12 (1.9, 13.9)*	2.4 (1.1, 5.4)*
Occupation						
Earns no income (Ref)	154 (77.0%)	53 (34.4%)	101 (65.6%)	0.015*	1	1
Earns income	46 (33.3%)	25 (54.3%)	21 (45.7%)		2.27 (1.2, 4.4)*	1.7 (0.7 , 4.1)
No. of children	3 (1,8)	2 (1,6)	3 (1,8)	<0.001*	0.66 (0.5, 0.8)*	0.7 (0.5 , 0.9)*
ANC visits						
less than 4 visits (Ref)	35 (17.5%)	11 (31.4%)	24 (68.6%)	0.306	1	
4+ visits	162 (82.5%)	66 (40.7%)	96 (59.3%)		1.50 (0.7, 3.3)	
Distance						
Far (>3 km) (Ref)	96 (48.0%)	26 (27.1%)	70 (72.9%)	0.001*		
Near (≤3 km)		1	1			
	104 (52.0%)	52 (50.0%)	52 (50.0%)		2.69 (1.5 , 4.9)*	2.2 (1.1 , 4.4)*
Wealth quintiles						
Lowest (Ref)						
Low	40 (20.0%)	8 (20.0%)	32 (80.0%)	0.001*	1	1
Medium	40 (20.0%)	9 (22.5%)	31 (77.5%)		1.16 (0.4, 3.4)	1.4 (0.4 , 4.5)
High	40 (20.0%)	18 (45.0%)	22 (55.0%)		3.27 (1.2, 8.8)*	4.5 (1.5 , 14.1)*
Highest	40 (20.0%)	19 (47.5%)	21 (52.5%)		3.62 (1.3, 9.8)*	4.9 (1.5 , 15.5)*
	40 (20.0%)	24 (60.0%)	16 (40.0%)		6.0 (2.2, 16.3)*	4.9 (1.5 , 16.5)*

Fig 2: Barriers and motivators to health facility delivery

CONCLUSION

- Four factors were identified as potential determinants of health facility delivery with the most prominent factor being wealth quintile, followed by marital status, living near the health facility and parity.
- Women had limited autonomy in deciding the place of birth and lacked a birth plan.
- Community based interventions such as the "Boma model" is one way of improving health facility delivery.
- Health facilities need to be functional with adequate supplies and motivated staff who work closely with the TBAs to ensure referral of pregnant mothers to the health facilities.
- Transport mechanisms need to be established to avoid the second delay.
- Intensive health education should be provided to increase awareness of the importance of skilled birth care and developing of birth plans and such efforts should involve men and other influential community decision-makers.