Individual and contextual factors affecting maternal health care utilization in Mandera County in Kenya: a mixed methods analysis

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Abstract

This paper examines the individual and contextual factors affecting the utilization of three aspects of maternal health care utilization: place of delivery, contraceptive use and child immunization. Primary data collected using a two stage cluster sampling is used to collect data in Mandera County - one of the remotest counties in Kenya. Low levels of maternal education, husband disapproval, deep religious and cultural beliefs, lean staff at health facilities and deep trust in Traditional birth attendants (TBAs) are key factors behind the low utilization of maternal and child health services in Mandera County. The study calls for a re-orientation of the role of TBAs, investment in human resources for health and increase in maternal education as well as community sensitization campaigns as means of accelerating uptake of maternal health services.

Introduction

The purpose of this paper is to investigate some of the key individual and contextual factors affecting poor maternal and child health utilization in Mandera county of Kenya. The reasons behind the low utilization of maternal services in Mandera County remain poorly understood and have not been subject to any systematic research. In this paper sheds insights on the study problem by providing insights on the levels of utilization of selected maternal and child health services. It further examines some of the individual and contextual factors that are likely to influence utilization of maternal health care services in Mandera County.

The adverse consequences of low utilization of maternal services are well documented in literature. They include high maternal and infant deaths, increased maternal related injuries and disabilities, high fertility due to unintended childbearing and disempowerment of women against access to sexual and reproductive health rights.

Results from Kenya's social atlas survey that was carried out in 2014 shows that Mandera County has a maternal mortality rate of 3,795 per 100,000 births against the national rate of 488 per 100,000 live births (KNBS 2014). Further, only 35.1% of births are delivered at a health facility against the national average of 44%. Additionally, only 53.1 percent of the children are fully immunized against a national average is 83%. Among married women in the reproductive ages (15-49 years), only 2% are using contraceptives against a

national contraceptive prevalence rate of 45%. Little is known why the uptake of these key maternal services is so low and scanty research has been done to systematically document the underlying factors. This lacuna forms the starting point of this paper.

This paper is based on primary data that was collected in Mandera County using a two stage cluster sampling design. The first stage of sampling involved the selection of clusters from the total number of clusters in Mandera County. The selection of the sample clusters was done based on probability proportionate to population size (PPPS) technique. The second stage involved the selection of households from the selected clusters. A list of households for each cluster was used as the sampling frame. In each households, a household questionnaire was administered to the household head. Secondly, a women questionnaire was administered to every woman in the household in the reproductive age group (15-49 years). A total of 312 households and 1726 respondents were sampled.

The main objective of this study is to apply a mixed methods analysis approach to assess individual and contextual factors associated with three facets of maternal health care utilization – place of delivery, use of contraceptives and child immunization.

The three delay framework was used to guide the study. This framework was first used as a guide to improve obstetric care but can be applied in other settings as well. The framework posits that it is important to address three major delays that are largely response for adverse maternal and child health outcomes. The first two are the delay in deciding to seek care and the delay in reaching appropriate care. These two relate directly to the issue of access to care, encompassing factors in the family and community including transportation barriers. The third "delay" (delay in receiving care at health facilities) relates to factors in the health facility, including quality of care. The thesis here is that unless the three delays are addressed, no safe motherhood programme can succeed. In practice, it is crucial to address the third delay first, for it would be useless to facilitate access to a health facility if it was not available, well-staffed, well equipped and providing good quality care.

Ethical Approval

This study obtained consent from the Mandera County Health Management Team. Prior to the actual data collection, a verbal consent was obtained from the respondents. Respondents were also informed that they were free to opt out at any stage of the interview process. Confidentially of the collected information was assured through removal of personal identifiers before data analysis. This

way, it was impossible for one to link the collected data directly to the respondents.

Preliminary Results

A descriptive analysis using Stata Version 13 revealed that Mandera County had:-

- Only 4.5% of women in the reproductive age group who were using contraceptives against a national average of 56%.
- 80% of married men disapproved of family planning use by their women/spouses
- 86.5% of women in the reproductive age group did not know where to go in case of pregnancy complications
- Among women who have ever given birth, 73% were not given any anti-malaria prophylaxis during pregnancy
- Over 96% of households did not have means of transport to a health facility and 93.4% of women who had given birth did so at home.
- At least 72% of women who had ever given birth were assisted by traditional birth attendants (TBA) during delivery
- 17% of women reported that they had given birth to a boy or a girl but later died before attaining the fifth birthday. This translates to an under-five mortality rate of 147 deaths for every 1000 live births- a rate that is almost twice the national average of 77/1000 live births

An analysis based on binary logistic regression found that husband approval, level of education, distance away from the health facility, prior history of pregnancy complications, ever had at ANC visits and religion were significantly associated with delivery at a health facility by mothers (p-value<0.05). On the other hand, husband approval, maternal education, religion and cultural beliefs were all associated with contraceptive use (p-value<0.05).

A mixed method analytical framework which entailed a triangulation of quantitative results with qualitative results provided further insights on this topic. For instance, evidence from focus group discussions and key informant interviews revealed that cultural and religious barriers were the main reasons behind the extremely low contraceptive use as cited below:-

"*According to Islam, family planning is not allowed. They [people] are not even supposed to talk about it. There is no need for family planning… God says, I am there to bring everything to the world…. am there to judge. If a person uses family planning, it is like competing with God and who would want to do [compete with God] that?" male FGD respondent.*

"Islam does not allow use of family planning. "Islam religion prohibits the use of family planning and instead advises it to be substituted with 24 months with breastfeeding as a control" However, some [Women] use [contraceptives] privately if they have short intervals of pregnancies" Female FGD respondent, Mandera North.

"A mother breastfeeds her child for up to 2 years as [Islam] religion teaches. A husband after his wife delivers goes away with animals for about 2 years then he can return to his home or he stays with other wives until that time when the child is 2 years…This is like family planning in itself" FGD male, Dandu sub location.

"Islam prohibits family planning… It says "Do not kill or control your child propagations while you're running away from poverty/hunger" Male respondent, Mandera Central

Cultural barriers coupled with misconceptions adversely affected utilization of other maternal health services such as child immunization and place of delivery as evidenced by the following selected excerpts from the respondents.

"*Among the Somali, there are cultural norms that baby boys cannot be taken out until 40 days after delivery. Therefore, it is not easy for children to be taken to hospital as soon as they are delivered for vaccination"* FGD, Female respondent.

"Taking a child to hospital for immunizations makes the child get malaria" FGD respondent, Female, Mandera West sub county.

"People associate vaccination of children with birth control methods. Birth control methods are unacceptable in Islam religion. Culturally, it is expected that a child is kept indoors for six weeks after birth under all circumstances and hence cannot be taken to hospital for immunization" FGD member, Mandera county Hospital.

"Culturally, men should not see a woman's body who is not his wife yet most medical staff are male. Therefore our women prefer going to traditional birth attendants for women issues [maternal related services] such as being checked during pregnancy and actual delivery…what is even worse is most medical staff at the health facilities are not locals- our women and the community at large does not trust foreigners with their health" Male community health worker, Border Point 1.

"In the Somali culture, a woman is not allowed to go out of the house after birth [before end of two weeks] and if she must for example go to the toilet she carries with her a metal rod to protect her from evil spirits. So how can she take the baby for vaccination at the hospital after delivery? …in any case, immediately after delivery, the Sheikh prays for the newly born child and spits water to the baby…its believed the child will be strong thereafter." FGD respondent male, Dandu sub location

Besides, our analysis also found that health systems factors played a role not only in family planning uptake but also in the uptake of other maternal health services.

"Employ the right number of nurses at our facilities. For example, Takaba hospital has only 6 nurses instead of 60 nurses. Can you imagine the workload they have? Can they really offer quality services including family planning?" Health Provider, Female, Takaba Hospital.

"There are few nurses at the hospital so they take too long to attend to us which makes us get bored" Women respondent, FGD Mandera West sub county.

"Sometimes we come to the facility and find it closed, no one would want to come again putting in mind the long distance we have travelled" Women respondent, FGD Mandera West sub county.

"We need to be supported…We don't even have a delivery couch for mothers, they deliver on the floor. We need more staff, currently I'm the only one who does everything at the facility and cannot deliver my best. I'm on call 24/7. I can't be able to do the ideal procedures for delivery, I'm the one who is to deliver a mother take the initial assessment of the baby, deliver the placenta. It's really overwhelming" KII, Takaba Hospital.

"We don't have a weighing scale for newborns; we just use estimation which is a problem because we try to estimate the weight to be within the normal range" KII, Takaba Hospital.
"We have a fully equipped theatre but with no surgeon to conduct the surgeries, I wish the government could employ at least one and we would not have to refer patients to Moyale" KII, Takaba Hospital.

Due to scarcity of trained health providers, traditional birth attendants were viewed as a blessing and a curse in the delivery of maternal health care.

"TBAs are very important …they assist mothers during deliveries, they hold the baby's head not to fall, and they clean the mothers and baby. They are always available and ready when called upon. Women never feel shy to be delivered by TBAs as compared to male nurses at the facility. "Traditional birth attendants also understand our language better" Women respondent, FGD Mandera West Sub County.

"They [TBAs] provide services especially where we don't have facilities in the community. In places like Ireteno with a population of approximately 8000 and Danaba with a population of approximately 6,000 there are no health facilities, so only TBAs do conduct deliveries in those areas. They are important" KII, female, Takaba Hospital.

"TBAs provide unskilled services to women leading to complications like excessive bleeding and even death. They are like our competitors and a hindrance to quality care; they go to the mothers while we tell the mothers to come to us… I was called to intervene at the community to a mother who had been in labour for 8 days! I asked the TBA is the baby alive and she said yes. How do you know? She answered because the stomach is warm. After my intervention I managed to deliver a macerated foetus with no head to it. Luckily the mother survived and I put her on antibiotic treatment" KII, female, Takaba Hospital.

Conclusion and recommendations

Mandera County experiences poor maternal and child health care indicators which have adverse consequences for the mother, the child and the community at large. This is undermining the county in realizing the national and

international targets such as goals 4 and 5 as articulated in the Millennium Development Goals (MDGs).

This study calls for an urgent need for investment in human resources for health. There is need to increase awareness campaigns on the need for utilization of health facilities for maternal delivery, child immunization and uptake of modern contraception. Given the deep rooted believes in the use of traditional birth attendants by the communities, there is need for stakeholders to partner with the county health management to re-orient the role of TBAs to serve as patient referral agents to the link facilities so that they do not serve as competitors to the professionally trained health providers who have skills to handle pregnancy complications and emergencies. The study strongly calls for urgent policies to foster empowerment of women such as increasing opportunities for maternal education as a way of increasing their choice in decision making in matters of reproductive health and child care.

References

- **To be provided with the full paper.**