Best practices for addressing socio-cultural barriers to reproductive, maternal and neonatal health service utilization among women from pastoralist communities of Afar, Ethiopia: a qualitative study

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Abstract

Background: Over the past decade, Ethiopia has shown impressive gains in improving access to reproductive, maternal and neonatal health services for its citizens. Nevertheless, there are striking disparities in the provision of good-quality reproductive, maternal and neonatal health services – and the use of such services – between regional states. In Afar region, which is home to numerous pastoralist communities, the uptake of reproductive, maternal and neonatal health services is particularly poor, largely due to socio-cultural barriers. However, there is limited scientific- and context-specific evidence on the best practices that could address the socio-cultural barriers to the uptake of such services in these pastoralist communities.

Objective: To describe best practices to address the socio-cultural barriers to the uptake of reproductive, maternal and neonatal health services in the pastoralist communities of Afar, Ethiopia.

Methods: This study used a qualitative approach with 12 respondents from Zone 1 of Afar region. Purposive sampling was used to recruit 12 health care providers to participate in the in-depth interviews, which were held between March and June 2016. All interviews were audio-recorded and transcribed in English. Categories and codes were weighted for their significance to the research question and recurrence in the interviews. The transcripts were exported to ATLAS.ti 7.5.13 software for analysis. Recurring themes were described with accompanying explanatory quotes.

Results: The best practices to address the prevailing socio-cultural barriers limiting the uptake of reproductive, maternal and neonatal health services in the Afar setting were identified as strengthening the traditional governance structure; forming volunteer groups and committees; constructive engagement of traditional birth attendants; promoting male involvement in reproductive, maternal and neonatal health services; engaging religious and clan leaders, and influential figures; making maternity waiting homes more culturally acceptable; improving postnatal care; promoting family planning; deploying mobile health teams and clinics; promoting community settlement; and setting priorities.

Conclusions: Redirecting public resources to implement the best practices for an improved uptake of reproductive, maternal and neonatal health services needs to be considered in the context of 'development first', where women, education and infrastructural development are given priorities. Failing to appreciate the 'development first' approach will continue to perpetuate the low uptake of reproductive, maternal and neonatal health services and further widen the health disparities between the agrarian and pastoralist communities in Ethiopia. [*Ethiop. J. Health Dev.* 2018;32(Special Issue):0-00]

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Introduction

Mothers' utilization of the continuum of care is believed to be vital in improving maternal and neonatal health outcomes. Cognizant of this fact, Ethiopia has been working inexorably to improve the health of mothers and children based on the principles of decentralization, democratization, equity and accessibility. As a result, remarkable progress has been made in improving maternal and child health (MCH) services in the country. Child mortality has reduced by two-thirds (from 204 per 100,000 in 1990, to 68 per 100,000 in 2012) and the Millennium Development Goal (MDG 4) was achieved two years ahead of plan (1). Similarly, maternal mortality has significantly reduced to about 412 per 100,000 live births (95% CI: 273-551) in Ethiopia (2). These improvements have largely been credited to the Health Extension Programme (HEP) and, more recently, its extension, the Health Development Army (HDA) (3).

However, the uptake of reproductive, maternal and neonatal health (RMNH) services by women in the pastoralist communities of Ethiopia is still very low compared to the uptake by women living in the agrarian communities of the country. The uptake of contraception is highest in Addis Ababa (57%) and lowest in the Somali (2%) and Afar (12%) regions (2). The best proxy for maternal mortality is the percentage of deliveries attended by a skilled birth attendant (SBA) (5). Despite the risk associated with home deliveries, 90% of Afar women still deliver at home and more than 82% of the deliveries are assisted by traditional birth attendants (TBAs) (6). The level of postnatal care coverage is extremely low in Afar. The majority (90%) of women aged 15 to 49 from Afar

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who had given birth in the two years preceding the survey on which this article is based had no postnatal check-up, and only 12% of them had a postnatal check-up in the first two days after birth (2).

The remarkably low uptake of RMNH services will continue to be one of the most challenging health concerns to the health system in the region, necessitating reinforced efforts to improve the uptake of available RMNH services and reduce the health disparities between the agrarian and pastoralist communities in Ethiopia. The lack of a comprehensive and holistic understanding of the demand-side barriers to and facilitators of the uptake of RMNH services is currently a major obstacle to finding effective solutions to the lower uptake of RMNH services in these pastoralist communities. Thus, the objective of this study was to qualitatively assess the best practices to address the socio-cultural barriers that limit the uptake of RMNH services by women from Afar pastoralist communities.

Methods

Study settings: The interview was undertaken in Logia and Samara, towns in Zone 1 of the Afar Regional State. Logia and Samara lie on the Addis Ababa–Djibouti highway and are home to the Afar Regional Health Bureau, the Women and Youth Affairs office and several development partners. The Afar region was chosen for this research not only because the uptake of RMNH services is low, but also because Afar presents an interesting ideal case study for the poor uptake of RMNH services in pastoralist communities across Ethiopia.

Study participants: Study participants were recruited from staff members of the Afar Regional Health Bureau, local and international development partners and local health providers working in the domain of reproductive, MCH services. Study participants were selected based on their level of expertise and involvement in RMNH services in Afar. The diversity of the informants allowed us to gather a variety of perceptions regarding the uptake of RMNH services in the region.

Recruitment of participants: Purposive sampling was used to recruit the research participants. This was a judgmental selection based on the participants' knowledge of the subject of study, the participants' role in the selected RMNH services in the Afar region, and our evaluation and/or perception of the relevance of that role and knowledge to the research topic.

Basic characteristics of the study participants: Our study participants were experts who have had solid experience of RMNH services in Afar pastoralist communities. The participants were either health professionals or gender experts with a formal university education.

Data collection methods and tools: An open-ended thematic topic guide was used to guide the in-depth interviews. The tool was designed to ensure that similar themes were covered in each interview. However, it had built-in flexibility that allowed questioning to flow naturally, while permitting us to pick at random and probe more deeply into any pertinent but unexpected issues that arose during the interview process. The instrument focused mainly on the demand-side barriers to the uptake of RMNH services and the best practices to overcome the socio-cultural barriers to the uptake of RMNH services by women, taking into consideration the possible effects of the mobile nature of the pastoralist communities in which they live. Some of the questions posed to participants during the interviews focused on problems relating to demand-side knowledge, service provision and socio-cultural preferences. Demand-side factors influencing access to healthcare services are defined in the Grossman model (4), which analyzes individual consumption and investment decisions, as 'those factors that influence demand and that operate at the individual, household or community level' (5). This stands in contrast to supply-side factors which derive from the health care production side and include, for example, wages and quality of staff or available medical technology. Thus, the socio-cultural barriers to RMNH services uptake refers to any factors holding people back from securing the optimal RMNH services that they can obtain. To ensure that the instrument was reliable, we engaged in a continuous review of the questions and the interview process to ensure the instrument was to capture the intended response. This proved valuable in enabling us to reframe the questions, clarify and use more appropriate or easily understandable concepts as the research progressed. All interviews were tape-recorded alongside hand-written field notes.

The in-depth interviews were conducted in English, thereby eliminating translation bias. The process of data collection via in-depth interviews continued till the saturation point, and ended when no new ideas and issues seemed to arise. Thus, to uncover the socio-cultural barriers to the uptake of RMNH services in the Afar region and to identify best practices in overcoming these barriers, 12 in-depth interviews were conducted with key stakeholders and experts from Afar region. Sample size was determined by information saturation. The guide used for the in-depth interviews was based on key informant interviews conducted before data collection with experts in the RMNH field. The fieldwork took place from March to June 2016.

Data management and analysis: All interviews were audio-recorded and transcribed. Codes were assigned to all informative narratives that pertained to the research question. Categories and codes were weighted for their significance to the research question and recurrence in interviews. Data coding continued until theoretical saturation was reached. This was a point where no new concepts emerged from successive reviewing and coding of the data. Transcripts were exported into ATLAS.ti 7.5.13 software for further analysis. The most significant and recurring themes are described in the 'Results' section, with accompanying exemplifying or explanatory quotes. Where appropriate, we use verbatim quotations from interview

transcripts to illustrate responses related to relevant themes.

Ethical considerations
Ethical approval for the study was obtained from the Institutional Review Board of the College of Health Sciences at Mekelle University. We also received permission from Afar administrative and health authorities. All participants/informants agreed to voluntarily take part in this study and gave their informed consent after it was explained that their participation was entirely voluntary and that information obtained would be used for the purpose of this study only. The anonymity, privacy and confidentiality of the participants were respected.

Results
Best practices
***Strengthening the traditional governance structure*:** The strength of the traditional governance structure, referring mostly to the power of clan leaders, was reported to be an Afar-specific factor that should be used to achieve RMNH programme objectives. Furthermore, multiple interviewees also spoke of 'dagu (community based system helps to share different information)' as an Afar-specific factor that should be utilized to optimize results, and would be especially effective when used by the clan leadership to promote the use of RMNH services. The view was expressed that without the support of the traditional governance system, any attempt by the formal government structure to achieve RMNH programme objectives would fail. As an Afar Development NGO project officer stated:

> *Any information that passed through the traditional governance system is accepted by the Afar community.*

***The formation of volunteer groups and committees*:** The Ethiopian Federal Ministry of Health has reportedly set clear guidelines on how to best create awareness and mobilize the community. These guidelines are adapted to the Afar context by the various development partners and implemented in a variety of ways. Accordingly, model women's committees were formed. Women's committees were reported to be effective in identifying cases of medical complications, such as fistulas, that would otherwise have gone undetected'. These model women have positive attitudes towards and use RMNH services, and could organize social gatherings for awareness creation and community mobilization.

***Constructive engagement of TBAs*:** Many interviewees detailed the need for the inclusion of TBAs in RMNH interventions, because of the immense respect they receive from the Afar communities and the concurrent influence they have on decision-making around pregnancy and birth. An RMNH NGO regional team coordinator stated:

> *Their (TBAs) recommendations are fully accepted by women from Afar. If the TBA refused a referral of a child to a hospital, then the mother will not take the child to the hospital. The mother will prefer to wait and see the fate of her child.*

Interviewees stated that if the influence of the TBAs is optimally utilized, it can be used to mobilize women towards an improved use of RMNH services. Towards this end, a proposed innovative was introduced by the Head of the Afar Health Bureau whereby the registered TBAs count and register the pregnant women in their respective kebeles, and the Bureau can hold the TBA accountable for the women who end up delivering at home. Others spoke of an approach that requires the TBAs to sign contracts that obligate them to have their pregnant women deliver in the nearby health facility, with monetary incentives per institutional delivery for the TBAs.

***Promoting male involvement*:** Improving demand for RMNH services is reported to be strongly hampered by social and cultural norms. RMNH-related issues are considered as the business of women. As an RMNH NGO regional team coordinator stated:

> *If men are involved, the demand generation towards RMNH service utilization would have been much easier and faster. However, men think that RMNH services are strictly issues of women.*

While the informants spoke of the poor involvement of husbands, there were also stories about the more positive' side of male involvement. They reported that peer influence through education and model men is often enough to promote the use of RMNH services.

***Engaging leaders and influential figures*:** Engaging leaders and influential figures was reported by all interviewees as a crucial component of an RMNH intervention. Apart from being very influential, the religious and clan leaders have the power to punish men through the 'fiema', the Afar traditional justice system, if they don't listen to their advice.

***Using cultural maternity waiting homes*:** The majority of the interviewees agreed that the introduction of cultural maternity waiting homes (CMWHs) was an innovative approach to mitigate social and cultural barriers. According to multiple interviewees, not only are the traditionally constructed wooden huts much cheaper than their modern counterparts, they make Afar women feel more comfortable. The CMWHs should be constructed by the community using local materials to achieve optimal community ownership. As an RMNH fund coordinator explained:

> *The cultural house (dibora) makes the Afar women feel at home and hence avoids stress for the delivering woman.*

Several interviewees noted that, to overcome social barriers, the CMWHs should be constructed to accommodate travel companions and visitors. Visiting someone at times of illness or delivery is a social obligation in Afar. As a government women and youths affairs official expressed:

> *If the companions don't have a place to stay, the delivering women may not want to go the health facilities for delivery.*

The interviewees insisted that the CMWH should provide food made from locally available resources for the stay and performance of preferred ceremonies surrounding birth. As an RMNH fund coordinator explained:

> *Women and the family travel so many kilometres to the health institution for delivery without food. So, after delivery, they need food to eat and to celebrate ceremonies surrounding birth at the CMWH.*

Some interviewees advised that there was a need for educational messages about institutional delivery and the CMWH initiative, including birth preparedness and advising households to have food ready for the travel, stay and ceremonies. However, financing and the sustainability of the CMWH was not converged to a specific point. Some of the interviewees argued that the sustainability of the CMWH can best be ensured by pooling funds from the salaries of the district (woreda) officials. Others argued that a payback system would be the best approach to make the initiative sustainable. A pastoralist NGO program coordinator stated:

> *We advised them [to use] the payback system, because the family should have a notice of ownership to the whole problem.*

Others suggested a mix of community and woreda financing. Although a woman can reportedly care for herself for most of her stay at the CMWH, it was advised by multiple interviewees that TBAs or health extension workers (HEWs) should welcome and introduce the pregnant woman to the CMWH. Besides providing comfort and social support, the health care providers should also ensure the proper provision of health education immediately after birth to make the stay of the mother educational and enjoyable.

***Improving postnatal care*:** The cultural barrier that hinders women from leaving home for 45 days after delivery is being tackled by HEWs carrying out house-to-house visits. The quality of care by HEWs, however, is reported to be unsatisfactory and their ability to provide care is hampered by the inaccessibility of and distance to the communities. Interviewees proposed refresher training for HEWs in home-based postnatal care, and providing HEWS with a motorcycle or bajaj ambulance to transport women to health facilities for routine postnatal check-ups.

***Promoting family planning*:** Demand for family planning is reportedly restricted by the cultural preference for large families in Afar, which might stem historically from times of conflict and affluence. Health education focusing on the drawbacks of large families in today's times of peace and scarcity was reported as the best practice for gradually changing this cultural norm. Multiple interviewees claimed that demand for family planning services was high among women, upheld by the claim that many Afar women were using contraceptives in secret, for fear of their husband suggesting that male involvement in the push for family planning is imperative. A government women and youth affairs official explained:

> *Planning a family means improving the life of their wives and their children.*

Religious resistance to family planning is reportedly very hard to overcome in Afar. Interviewees claimed, however, that correcting the notion that Qur'anic regulations do not allow the use of contraceptives, through the teachings of program-employed Islamic scholars, could initiate a change in attitude. Also, proclaiming that Islam promotes two-year birth spacing, by encouraging natural contraception in the form of breastfeeding, was said to increase the use of contraceptives in this period, and it may go with their culture.

***Deploying mobile health teams and clinics*:** Mobile health teams were reported as a best practice to delivering RMNH services to pastoralists and mitigating all demand-side barriers, providing ante- and postnatal care, skilled birth attendance and health education to remote communities. Though expensive and difficult to maintain, partly because of the harsh environmental conditions in Afar, interviewees claimed the results were substantial, and an RMNH project should be set up to provide mobile clinics for institutionalized deliveries and diagnostic services. As a government women and youth affairs official stated:

> *The best way is to get the communities settled. Until that time, continue to provide RMNH services using the mobile clinics.*

***Promoting community resettlement*:** Community resettlement programmes were reported to be a long-term strategy of the Ethiopian government and were supported by the majority of interviewees as the primary best practice to mitigate all demand-side barriers. As the first international NGO (iNGO) project officer stated:

> *Settlement, coupled with the provision of clean water, schools, health and other essential facilities, can address most of the problems of women from Afar. Such development-oriented interventions are the best approaches to increase the uptake of RMNH services in Afar.*

Resistance to settlements due to deep attachments to customs and traditions can best be overcome gradually by means of sustained education on the benefits of settlement.

***Setting priorities*:** Another theme recurring in the interviews is that the focus of policy should not be on mitigating the demand-side barriers when the supply-side barriers are still so prominent. This focus was reportedly not only bound to eventually repel women and decrease demand further, but would also endanger the health of women who are pushed to inadequate and distant health facilities. As a pastoralist development NGO program coordinator stated:

> *Institutionalizing births in the absence of infrastructures such as roads and ambulances could turn out to be deadly.*

For these reasons, interviewees demanded that attention needs to be paid to improving the services brought to the Afar homes by training TBAs, training HEWs to be midwives, and educating local people to provide culturally sensitive services in the communities. The lack of infrastructural development such as roads and health facilities means that proximity to functional health facilities remains a considerable problem in the pastoralist communities of Afar. Thus, investing in good-quality education and infrastructure development should be the priorities of the government to sustainably address the poor uptake of RMNH services in Afar.

Discussion

Though the availability of RMNH services has the potential to improve access to and the use of RMNH services, it was neither sufficient nor appropriate for increasing and sustaining the uptake of RMNH services in the context of Afar. Thus, the health system in Afar must take into consideration the prevailing barriers to ensure efficient use of limited resources and provide maximum impact. In this regard, experts have recommended that health system strengthening programs in Afar settings should put more emphasis on identifying and implementing the best practices that can address the complex and inter-related set of factors that affect women's use of RMNH services. The best practices with the potential to improve the uptake of RMNH services by women from Afar were identified as: strengthening the traditional governance structure; forming volunteer groups and committees; constructive engagement of TBAs; promoting male involvement in RMNH services; using CMWHs; improving postnatal care; promoting family planning; deploying mobile health teams and clinics; promoting community settlement; and setting priorities.

***Strengthening traditional governance structures*:** Providing RMNH services in the pastoralist communities of Afar is often challenging. The factors associated with the pastoralist lifestyle, including dispersed settlement patterns, seasonal mobility and the continued presence of harmful traditional practices including female genital mutilation (FGM), among other things, perpetuate under-utilization of services even when and where they are available. Therefore, when researching RMNH services, it is necessary to consider social and cultural aspects, since these factors may be influential in the use of RMNH services. Optimally utilizing the traditional governance system of the Afar community could be an essential element of improving the uptake of RMNH services in Afar. It is more vital than ever to have effective governing structures that can address the traditional demands of women from Afar, while meeting the expectation of the rapidly changing health care environment in the region. The traditional governance structure might be given responsibilities pertaining to regularly reviewing quality performance data, holding management and health care staff accountable for patient safety and quality of care, and ensuring that resources are available for RMNH services.

Our findings revealed the legitimacy and relevance of the traditional governance structures, especially the clan system, in the socio-cultural lives of the Afar community. The clan system in Afar is vested with enormous authority in rule-making and enforcement of the Afar traditions and customs. In order to break the traditions and customs and to improve the uptake of RMNH services, there is a need to recognize the traditional 'clan' and 'dagu' systems fully. This is principally borne out by a growing recognition that the health care system must be grounded on indigenous social values and contexts, while adapting to changing realities. The clan system can play an advisory role to local health authorities' developmental role, complementing the local authorities' efforts in community mobilization for an increased uptake of RMNH services, and sensitizing on other health issues, promoting education, and inspiring respect for the law and others. This will require, among other actions, aligning and harmonizing traditional governance institutions with the modern health care delivery system in the pastoralist communities of Afar. The question therefore is how to integrate the two systems more effectively in order to better serve women from Afar in terms of their use of the RMNH services available to them. Furthermore, as noted above, multiple interviewees spoke of 'dagu' as an Afar-specific factor that should be optimally used by the clan leadership to promote the use of RMNH services by Afar women.

***Strengthening volunteer community health groups*:** A variety of factors were identified as important drivers to improving the uptake of RMNH services. One of these drivers was the formulation of volunteer community health groups. These health groups are a volunteer cadre operating semi-formally within communities, at village and household level, without necessarily requiring formal education, and with limited training. The use of community health groups has been identified as one best practice to ensure community acceptance and ownership of RMNH services, and to address the growing shortage of health

workers familiar with local traditions and customs. Given the low uptake of RMNH services by women from Afar, using the volunteer community health groups may remain a good investment, since the alternative is no or low uptake of RMNH services by women embedded in traditions and living in geographically inaccessible areas. Shortages of skilled health workers, particularly in the study areas, have been identified as a key facet of the growing human resource crisis in the region. These shortages are believed to be driven by a number of factors: the increase in demand for health workers in the nearby agrarian regions, which has created a tremendous pull of health workers into these regions; increasing absenteeism rates; inadequately funded and poorly managed and performing health systems, coupled with harsh environmental conditions, which have led to deteriorating working conditions in Afar, creating a strong push factor. While these issues must be addressed through multiple measures, one strategy identified by the interviewees is so-called 'task-shifting' – delegating certain tasks to the 'volunteer community members'. It is in the context of task-shifting that the concept of using community members is identified as the best practice to address the low uptake of RMNH services. The engagement of community volunteers in health promotion, disease prevention and social mobilization activities, and referral to health facilities, is well known and practiced in various Sub-Saharan African countries such as Niger (6-8).

According to the interviewees, the members of volunteer community groups should be selected with due focus on the needs of the women and the traditions and customs of the community. They need to be influential and respected members of the clan or community, and well appreciated and trusted in the communities so that they can easily form links between the community and health system. The volunteer groups can encourage mothers' use of RMNH services by counseling them, conducting home visits, and creating forums to discuss issues related to RMNH care services. In India, for example, participatory women's groups and home visits have been shown to improve maternal and newborn health (9).

However, strengthening these volunteer groups by creating a strong linkage with the health system, and providing members with training in issues relevant to RMNH care services aimed at women in their communities, must be a prerequisite to effective implementation of the approach. Similarly, the number of volunteers and frequency of the visits by the volunteers are key to the success of the strategy. A high volunteer-to-population ratio would increase the frequency of contact with women and thus the potential impact on behavior change and coverage of health interventions. An evaluation of the nutrition support program in Ethiopia, conducted in 2012, concluded that in the agrarian regions of Ethiopia, volunteers most likely contributed to the improved nutritional status of children at a ratio of around one volunteer to 10–15 households, and about 10 volunteers to each full-time HEW (10). Considering the harsh environmental conditions, mobile nature of the communities and scattered villages, one volunteer to five households, and about five volunteers to each full-time HEW or frontline worker, are recommended in the Afar setting.

***Constructive engagement of TBAs*:** A TBA is a woman who assists the mother during childbirth and who initially acquired her skills by delivering babies herself or by working with other TBAs. Since time immemorial, TBAs have provided maternity care for women from Afar, despite having no formal training. For many of these women, tradition and local customs prevent them from attending health facilities for skilled birth attendance; for others, the barrier is the prohibitively long distance to health facilities. There is simply no way they could reach a health facility in time to give birth. During these critical times, TBAs support Afar women and provide them with all the care they need, both during and after pregnancy, and in childbirth. Thus, there is no doubt that they provide a much-needed service to local women who have no access to an SBA.

TBAs are not skilled or trained midwives. They inherit the job from their mothers or have learnt their skills from other TBAs. However, they are highly respected and their services are valued in the pastoralist communities of Afar. They perform cultural rituals and provide essential social support to women during childbirth. The interviewees argued that it is better to work with the TBAs rather than educating against the use of TBAs. The TBAs can be trained and linked with the health services to promote RMNH services and mobilize mothers to use RMNH care services and eventually increase the uptake of RMNH services and fight female genital mutilation in the region (*AMREF's Position on the Role and Services of Traditional Birth Attendants*) (11). TBAs can have a positive impact on efficiently meeting vital community needs in supporting women throughout pregnancy, childbirth and the post-partum periods, and eventually increasing the uptake of RMNH services. Until TBAs are replaced by sufficient numbers of SBAs who are familiar with the traditions and customs of the women, TBAs remain the only option for many women from Afar. Therefore, TBAs should be considered as an integral part of the health extension program and their constructive engagement with HEWs or frontline workers is essential to improve the uptake of RMNH services in the remote and hard-to-reach areas of the region, where health facilities are few and scattered, and numbers of skilled health providers are severely limited.

***Promoting male involvement*:** Men's involvement in reproductive health services requires a complex process of social and behavioral change so that they can play more responsible roles in reproductive health. This implies not only men accepting contraception, but also refers to the need to change men's attitude and behavior towards women's health, making them more supportive of women's use of health care services and sharing child-rearing activities. However, reproductive health services in Afar tend to be female-oriented.

Though gender differences in the Afar context appear to have a profound effect on the uptake of RMNH services, men are neglected or not fully participated in reproductive health issues. Cultural expectations and traditional perceptions of femininity also make it difficult for women to discuss reproductive health issues with men.

Our interviewees commented that the problem of male involvement in RMNH services is best tackled through sustained education, beginning at the roots. From their experiences, they have come to realize that women benefit from the increased knowledge men have about RMNH services, as the women found it much easier to raise and discuss sensitive RMNH issues at home. Thus, expanding basic education about gender issues and equality – in schools and informal education in mosques and by the traditional leadership – could improve the involvement of men in RMNH services utilization.

According to a government women and youth affairs official, the involvement of men in RMNH services could best be promoted through men's love for their families. Our educational messages should promote that male involvement in RMNH services *is tantamount to improving the life of women and children.* Thus, male involvement should be promoted to facilitate women's care-seeking and healthy decision-making, particularly with respect to the uptake of RMNH services and birth spacing.

***Adapting maternity waiting homes to suit local traditions/customs*:** Maternity waiting homes (MWHs) are places within or close to health facilities where women can stay and await labor. Once labor starts, they move to the health facility for skilled delivery. The MWHs are proven and time-tested strategies to improve access to health services for mothers and neonates who reside in hard-to-reach communities (12). Because of the unscheduled nature of deliveries and the preponderance for deliveries to occur at night, compounded by non-availability of transport and ambulance services, the need for MWHs is apparent in many developing countries (13).

Since the 1960s, MWHs have been advocated to bridge the gap in care received by women living in remote areas, compared to those living in accessible areas (14). The majority of the interviewees agreed that the introduction of MWHs was one of the best practices for mitigating the long distances and socio-cultural barriers hindering women from using RMNH services. This best practice can enhance better uptake of RMNH services if certain modifications or adaptations are made to the modern MWHs. The modern MWHs can be modified to the traditional 'dibora' huts, as suggested by the interviewees. These structures can easily be built by the community using local materials. Not only are the traditionally constructed wooden huts much cheaper than their modern counterparts, they make the Afar women feel more comfortable.

Most of the interviewees noted that to overcome social barriers, the CMWHs should be designed in such a way that they accommodate travel companions and visitors. Often, the exclusion of the accompanying family member(s) acts as a disincentive to seeking care, especially in Afar, where unaccompanied female travel is discouraged. The cultural dibora houses are small but able to accommodate the companions or visiting families, and hence ensure the privacy of the delivering woman.

Moreover, several interviewees insisted that the CMWHs should provide food made from locally available resources, water, firewood and other necessities essential to perform cultural ceremonies surrounding birth. As an RMNH fund coordinator explained:

> *The woman, together with her companion, will be traveling long… distances to reach the CMWHs and do not carry their food. The availability of food and kitchen materials for the preparation of food is essential in the CMWHs.*

Interviewees further agreed that awareness creation about CMWHs is of paramount importance for both creating demand and social support for the CMWHs. As suggested by the interviewees, volunteer health groups and TBAs could be trained to educate mothers about birth preparedness using appropriate education messages. Social support is necessary so that the community can ensure sustainability of the CMWHs through proper supervision of the family of the delivering women.

The presence of MWHs meeting cultural expectations and whose locations are selected by the community could facilitate the voluntary use of RMNH services and thereby contribute to increased skilled care attendance in Afar. Moreover, MWHs should:

- be staffed by qualified and competent staff to provide good-quality emergency obstetric care when complications arise and to deal with infibulated mothers
- be provided with communication and transportation facilities for timely consultation
- make optimal use of and motivate the volunteer community health groups and TBAs to bring pregnant mothers to the MWHs
- provide spaces for family members or companions
- allow for 'cultural adaptation' of the traditional birthing practices or health care services, including the option of vertical delivery
- provide women and their companions with food, water, firewood and other necessities to perform ceremonies surrounding birth.

***Promoting community resettlement*:** According to the key informants, the pastoralist lifestyle is becoming difficult to sustain and hence community resettlement programs were reported to be the primary best practice to mitigating all demand-side barriers to RMNH services in Afar.

As stated above, the interviews indicated that the deep-rooted attachment of the Afar people to the pastoralist way of life can only be overcome through education on the benefits of resettlement. The different traditional structures can be optimally utilized to counsel the Afar communities that mobility is no longer considered necessary, and that settled life, coupled with the provision of public services such as schools, health facilities, water points and access to adequate land for cropping and grazing, are reasonable options for improving the uptake of RMNH services and eventually the livelihood of the community.

Priority setting**:** The discussions with the experts from the Afar region provide a better understanding of key factors affecting the uptake of RMNH services and RMNH program implementation. Addressing the demand- and supply-side barriers is critical to improving the uptake of RMNH services. Creating demand for RMNH services without addressing the supply-side barriers is deemed lethal to the uptake of RMNH services. The interviewees confirmed that RMNH is a 'stated priority' for the Afar Regional Health Bureau and the District Health Offices. This is reflected in the availability of institutional arrangements to provide RMNH services in all the health institutions at the district level; the use of key RMNH indicators as the basis for assessing the performance of the health sector; and financial support focusing on RMNH services at the regional and district levels. Despite the high commitment to RMNH services from the regional officials, the uptake of RMNH services is very low. As a case in point, family planning acceptance has remained persistently low, with a modern contraceptive prevalence rate of just 5.4% ***(Factors influencing contraceptive use among women of reproductive age from the pastoralist communities of Afar, Ethiopia),*** and the proportion of women who give birth with the assistance of an SBA, a proxy measure of the risk of maternal morbidity and mortality, is still low ***(The Levels of utilization of reproductive, maternal and neonatal health services among women from pastoralist communities in Afar, Ethiopia).*** The use of contraception is too low in the study communities, where the majority of women have no formal education and their status is diminished. Studies have shown that women's education is associated with the optimal uptake of maternal health service (15-17). The interviewees also indicated that the health facilities lacked the basic infrastructure, human power, equipment and transport facilities to provide a good quality of care. Such shortcomings would definitely limit access to RMNH services, even where the services are theoretically available. Thus, redirecting public resources to implement the best practices for an improved uptake of RMNH services needs to be considered in the context of 'development first', where women's education and infrastructural development to optimally access the available public resources are given priorities. Failing to invest in education and infrastructure will continue to perpetuate the low uptake of RMNH services and further widen the health disparities between the agrarian and pastoralist communities in Ethiopia.

Comparison of the best practices with the WHO recommendations for maternal and new born health interventions*:* The best practices identified in this study were compared against the standard WHO recommendations for MNH interventions (18). 'Companion of choice at birth' and 'Community participation in Maternal Death Surveillance and Response' did not match or resonate with our findings. Those factors that resonated slightly with our study findings were birth preparedness and complication readiness; community-organized transport schemes; community mobilization through facilitated participatory learning and action cycles with women's groups; and community participation in quality improvement processes. However, male involvement, awareness creation, MWHs, partnership with TBAs, providing culturally appropriate skilled maternity care and community participation were identified as themes that correspond to or match the WHO recommendations.

Limitations

A limitation of the study was that we were unable to recruit women participants in significantly disadvantaged remote areas that are not regularly served with basic RMNH services. As such, the perspectives of that group of women are not well captured in our qualitative study. Second, the use of English might have served as a barrier to effectively exploit the full benefits of the in-depth interviews.

Conclusions:

The barriers that inhibit demand for RMNH services by women from Afar include a lack of awareness, (cultural) inadequacy of services, long travel distances and socio-cultural preferences, especially lack of male involvement. Interventions to mitigate these barriers should include strengthening of the traditional governance structure; formation of volunteer groups and committees; constructive engagement of traditional birth attendants; promoting male involvement in RMNH services; engaging leaders and influential figures; making the MWHs culturally appropriate; improving postnatal care; promoting family planning; deploying mobile health teams and clinics; promoting community settlement; and setting priorities for RMNH services. Male involvement, awareness creation, MWHs, partnership with TBAs, culturally appropriate skilled maternity care and community participation were identified as themes that correspond to or best match the WHO recommendations for MNH interventions.

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