Preferences for Home Delivery in Ethiopia: Provider Perspectives

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Abstract

More than half of the maternal deaths worldwide occur in sub-Saharan Africa, most commonly during childbirth or the immediate post-partum period. Although delivery in health care facilities can avert maternal deaths, many women in sub-Saharan Africa continue to deliver at home. Factors influencing mothers' decisions to use facility-based delivery services in rural, low-income settings are not well understood. Health care professionals who provide delivery services in these areas may have unique insights about factors specific to such settings. Accordingly, we conducted a qualitative study of health care professionals in rural Ethiopia to determine key factors influencing facility delivery, using in-depth interviews and the constant comparative method of data analysis. Results suggest multiple influences on women's decisions to deliver at home, including inadequate resources in facilities; unappealing aspects of delivery in facility settings; and known barriers to accessing services such as distance, transportation, and cost. Our findings suggest that local health care providers offer valuable insight into why many rural Ethiopian women deliver their babies at home, despite major efforts to promote facility-based delivery. Their perspectives underscore the importance of a patient-centered approach to delivery services, which is often lacking in low-resource settings but may be fundamental to encouraging facility-based deliveries.

Introduction

More than half of maternal deaths (56%) worldwide in 2010 occurred in sub-Saharan Africa (Organization, UNICEF, UNFPA, & Bank, 2010), and most of these (60%) occurred during childbirth or the immediate post-partum period (Rogo, Oucho, & Mwalali, 2006). Delivery in health care facilities can avert maternal deaths by providing women with skilled delivery assistance, drugs to address labor complications, and referral to a more advanced clinic or hospital if necessary (United Nations, 2012). Many women in Africa, however, continue to deliver their babies at home (Montagu, Yamey, Visconti, Harding, & Yoong, 2011).

Barriers to delivery at a health center or hospital identified by women include long travel distances, unreliable or nonexistent modes of transportation, and the real or perceived cost of skilled care (Mills & Bertrand, 2005; Mills, Williams, Adjuik, & Hodgson, 2008; Mrisho et al., 2007; Tann et al., 2007). In addition, women express a preference for delivery in the privacy of their own homes, where they also have more influence over factors such as the physical position in which they labor (Adamu & Salihu, 2002; Kyomuhendo, 2003). Finally, women's level of trust in the quality of care they will receive at a specific facility has also been identified as an important factor in whether they choose facility-based delivery (Kruk et al., 2009; Kruk, Rockers, Mbaruku, Paczkowski, & Galea, 2010; Rockers, Wilson, Mbaruku, & Kruk, 2009; Shiferaw, Spigt, Godefrooij, Melkamu, & Tekie, 2013). Although this literature provides important insights into women's preferences for delivery, efforts to increase facility births in rural, low-income settings have had mixed success (Hounton, Byass, & Brahima, 2009; Mushi, Mpembenji, & Jahn, 2010; Otchere & Kayo, 2007).

Few studies have explored the perspectives of the health care professionals responsible for providing delivery services in low-income, rural settings (Mrisho et al., 2009; Mrisho et al., 2007; Shiferaw et al., 2013). This omission is important; 47.9% of the world's population still lives in rural areas (United Nations Department of Economic and Social Affairs, 2011), and rural health care providers are uniquely positioned to identify the institutional or environmental factors that influence the use of facility-based delivery services that might not be readily apparent to patients or identified by urban providers. Accordingly, we conducted a qualitative study of health care providers in rural Ethiopia to understand barriers to delivery in local health facilities and to suggest possible interventions to encourage more women to seek potentially life-saving skilled delivery services in a health center. The results of this study may be useful for designing interventions that can be effective in promoting facility births and hence reduce maternal and infant mortality.

Methods

Setting and intervention

Ethiopia, a country of approximately 88 million people, is currently ranked 174th of 182 countries in the United Nations Human Development Index (United Nations Development Programme, 2011). Ethiopia has a particularly low facility-based delivery rate; according to the most recent Ethiopian Demographic and Health Survey, only 10% of take place in a health facility (Central Statistical Agency [Ethiopia] and ICF International, 2012). The low rate of facility-based delivery, among other factors, is reflected in the country's maternal mortality ratio. While the ratio has been more than halved since 1990, there were still 470 maternal deaths per 100,000 live births in Ethiopia as of 2008 (WHO,

UNICEF, UNFPA, & World Bank, 2010). A woman in Ethiopia has a 1 in 40 lifetime risk of maternal death (Organization et al., 2010).

People living in Ethiopia predominantly reside in rural areas (84%) (Central Statistical Agency [Ethiopia] and ICF International, 2012), and only half of the country's population lived within walking distance of a health care facility as of 2001. As a result, in 2003 the Ethiopian government began an ambitious program to expand and improve its primary health care system (Dynes et al., 2013; World Health Organization, 2002). The first phase of the Health Sector Development Programme (HSDP I) established a four-tier health care system, represented at the community level by primary health care units (PHCUs). Each PHCU consists of a central health center, staffed by nurses and midwives and supervised by the district (*woreda*) health offices, and four to six smaller health posts, staffed by Health Extension Workers (HEWs).

The government-sponsored Health Extension Worker program aims to place two salaried HEWs in each health post. HEWs are almost always women who are recruited from the communities in which they will serve. As of June 2011, nearly 30,000 HEWs had been trained and assigned to locations across the country (Donnelly, 2011). The HEWs make door-to-door visits, providing health education and referring patients to the local health center who cannot be treated at the health post. The health center may then refer seriously ill patients to a district, zonal, or specialized referral hospital for more advanced care (Ethiopia Federal Ministry of Health, 2002). The HEWs may also be assisted in their work by Voluntary Community Health Workers (VCHWs), who are usually local volunteers trained by NGOs to offer health education. In some areas, the VCHWs work with the HEWs to identify community members in need of medical care. At the time of this

study, each PHCU served a catchment area of approximately 40,000 people and was supported by two outlying health posts.

The seven PHCUs featured in this study were located in Amhara; Oromia; Tigray; and Southern Nations, Nationalities, and Peoples' Region (SNNPR); these sites were participants in the Ethiopia Millennium Rural Initiative (EMRI), a systems-based effort of the Ethiopian Ministry of Health and the Clinton Health Access Initiative (CHAI). During the EMRI (2008-2011), CHAI worked to 1) improve the infrastructure of health centers (i.e., water, electricity, physical infrastructure, and equipment), 2) improve the supply chain (e.g., transport of specimens and results follow up), 3) build human resource capacity through health worker training and on-site clinical mentoring, 4) develop a system to improve referrals between health posts and health centers, and 5) mobilize the community with health education. The ultimate goal of the EMRI was to create a model of rural primary health care that could be successfully reproduced on a national scale.

Study design and sample

This paper reports findings from a focused analysis of qualitative data gathered as part of a larger, mixed-methods positive deviance study of health center performance (Bradley et al., 2012). We identified seven of the 30 PHCUs participating in the EMRI for additional study using site visits and in-depth qualitative interviews based on performance using 9 months of data, collected from July 2009 to March 2010; PHCUs were ranked as consistently high, improved, or consistently low in their population-adjusted performance, including rates of use of skilled birth attendants. In the present analysis, data reflect the views of health care providers from these seven local health care facilities.

Data collection

Qualitative data from each PHCU were obtained through in-depth interviews with key personnel at the *woreda* health office, the health center and the health posts. We conducted 6 to 8 individual and small group interviews in each PHCU, for a total of 46 interviews [Table 1 near here]. We use Amharic tailored discussion guides (Bradley et al., 2012) to interview PHCU coordinators, antenatal care (ANC) nurses, health center directors, clinical mentors, HEW supervisors at the health centers, and *woreda* health officials at the *woreda* health offices. We interviewed available health extension workers and voluntary community health promoters during visits to the health posts. We asked staff members at each study site specific questions about the maternal and childbirth services provided at their health center or health post, and their role in the provision of those services.

Interviews were conducted by trained research assistants who were fluent in Amharic and supervised by the project manager. A translator was also present at each interview to accommodate local languages spoken by healthcare workers. Interviews were audio taped and professionally transcribed and translated from Amharic to English. Each interview ranged from 30 to 60 minutes long. The Institutional Review Board at the Yale School of Medicine approved the study using a verbal informed consent process.

Data analysis

We employed the constant comparison method of qualitative data analysis (Bradley, Curry, & Devers, 2007; Miles & Huberman, 1994; Patton, 2002). Three members of the research team (LM, HS, JWT) conducted a line-by-line review of the interview transcripts

and developed codes inductively. Throughout the coding process, we constantly compared the content with previously coded data to ensure consistent assignment of codes. This iterative process of refining codes, including combining codes of like concepts and expanding the properties of each coded concept, continued until no new concepts emerged and the final coding structure of 12 codes was established. Using a refined final version of the code structure, the three members of the research team once again coded all interview transcripts and resolved disagreements through negotiated consensus. We used ATLAS.ti (Version 5.0.67; Scientific Software Development GmbH, Berlin, Germany) to facilitate data coding, organization, and retrieval.

Results

Three key themes emerged to characterize the perspectives of health providers in rural settings regarding reasons women choose to deliver at home. These included: inadequate institutional resources; features of institutional delivery that are inconsistent with women's preferences; and environmental and financial barriers to access [Table 2 near here].

Inadequate institutional resources

Participants described extensive resource gaps in providing high-quality facility-based delivery, including inadequate numbers of health facility staff, poorly trained health extension workers, hostile or insensitive staff, and insufficient health facility infrastructure and supplies. Providers perceived that these constraints reduce women's willingness to deliver in facilities.

Inadequate numbers of health center staff

Understaffing was a commonly identified challenge, with implications for patient experiences of facility-based delivery and the availability of maternal care. As one HEW supervisor said, “Although the aim is not to let a mother die while giving birth, there are times when a mother cannot get the delivery service here in the health center because there is no health official to help her” (PHCU 2).

One health center director listed the staff shortages at his facility: “We need a staff management officer, a midwife and also, though the number of nurses must be eighteen in one health center, we only have nine” (PHCU 2). Staff also reported heavy burdens on the existing staff that resulted from human resource shortfalls. A midwife described her workload: “There should be 3 midwives in the health center as per the standard...But I am the only one in this health center. There is a huge work load...Last Saturday I spent the night here. And yesterday and on Sunday I was here from 9:00 a.m. until 11:00 a.m. [the next] morning” (PHCU 1).

Poorly trained health extension workers (HEWs)

In an effort to increase access to skilled delivery services, the Ethiopian government has pursued a policy in which HEWs provide delivery services in their health posts (Ethiopia Federal Ministry of Health, 2010). While some participants thought that expanding the role of HEWs was a reasonable strategy, others felt that the HEWs – whose training focuses on community education and preventative care -- were unprepared for this responsibility. A HEW supervisor described the deficiencies in the HEWs’ childbirth training in detail:

“There is lack of skills among the [HEWs]. In fact, there are even those who have never seen a child being delivered in any health institution. Therefore, they are fearful to deliver a child in the health posts.... Although certain organizations have given special training to health extension workers, we did not see that much improvement among those who took the training. They were afraid when they were in training and they are still afraid to give this service here.” (PHCU 2)

Other participants agreed that the HEWs needed more or additional training, including at least one HEW we interviewed. She explained that she and other HEWs offered delivery services, but that “we are only using what we have learned while we were at the institution and we haven’t received any refreshment trainings or anything like that...especially on delivery, it is not enough” (PHCU 6).

Hostile staff

In addition to poorly trained HEWs, participants also described health center employees who were unwelcoming or even hostile toward patients. A health center director in one catchment area described how “the staff used to come to work hours late. We used to have a very low number of visitors because patients used to complain about spending too much time waiting and they generally preferred not to come here” (PHCU 4). Another PHCU coordinator described the behavior of the midwife at his facility;

“I have heard that she has pinched a mother [that was delivering with a forceps]. How can you do that and expect mothers to come? There are nurses that yell at mothers and slap them; we hear about some nurses who do

that, and I have also heard that there were incidents like that even at this health center.” (PHCU 6)

Participants observed that public perceptions of the quality of care they were likely to receive from PHCU staff could discourage women from seeking care. As one health center director explained, “if you are pregnant and you have certain misconceptions about coming and seeing the doctor here, and if my approach towards your situation is not satisfactory, you will not be motivated to come again” (PHCU 2).

Health facility infrastructure and supplies

Participants also described deficiencies in the physical infrastructure and supplies available at the PHCUs. At one health center, staff believed that repairs and improvements had led to an increase in the number of patients visiting the facilities.

“When you look at the physical structure [of the health center], cattle used to come into the facility and there was cattle manure which produced an unpleasant smell. But now our office has built a fence here and the facility has also been painted, so it looks very nice. ... The fact that it looks nice has attracted more people to come, because that has created a perception that it is a nice health center.” (PHCU 5)

Reports on whether health care facilities were adequately supplied with necessary equipment for childbirth were mixed. While some staff reflected that they had most or all of what they needed, descriptions of what they lacked were more common. One antenatal care nurse/midwife noted that while her health center had “gloves with abundance,” she sometimes tore gloves into pieces to cover more of her wrists and arms during deliveries

(PHCU 1). Furthermore, an antenatal care nurse noted that they frequently lacked iron supplements to treat anemia in pregnant women (PHCU 5).

Participants emphasized that the health posts had fewer supplies than the health centers. As one health center director noted, “Delivering at the health posts is not that different from delivering at home. Mothers are not even offered IV fluids there if they start bleeding. There is also no oxytocin there. They are not offered any drugs there. It is just [delivery] using only gloves” (PHCU 7). Overall, while the facilities and supplies at some health centers had improved, participants highlighted serious deficits in the number of staff available to provide maternal and child services and in the training and expertise of the current staff. These deficits made it difficult for them to promote facility-based delivery to the women living in these areas.

Features of facility-based delivery inconsistent with women’s preferences

Interviewees identified several aspects of delivery services offered at the health centers and health posts that were unappealing for mothers, including lack of sensitivity to patients’ modesty, uncomfortable delivery equipment, and potential separation from family members. Participants perceived that these aspects of delivery dissuaded women from seeking facility-based delivery services.

Lack of sensitivity to modesty

Some providers felt that women were reluctant to seek obstetric and gynecological care from strangers, in part due to modesty. A health center director said, “People here are afraid and ashamed to show their body to a stranger even if it’s to help them get better.... This is attributed to the belief that such a practice is shameful or assuming that showing

their pregnant figure might be a bad thing or even a sinful act in general” (PHCU 2). This reluctance was complicated by the possibility that health center workers might be male. One health center director explained that “Although our midwife is a female, mothers still find it difficult to come here and take off their clothes before her to get examined” (PHCU 4). Another health center director explained that “the other problem is that the midwives here might be [male]. Therefore, the [mothers] would be [too] shy to come here to deliver” (PHCU 7).

Uncomfortable delivery beds/couches

Participants also suggested that the health centers’ equipment and practices might make women uncomfortable. A health center director observed that “the mothers feel uncomfortable about lying on the delivery couch to deliver because they find it to be too exposing and they feel shy.” While some health center workers were pleased that their health centers had received new delivery beds or couches, others felt that female patients disliked the new equipment. One nurse noted, “The couch itself is not comfortable. It is not what they [the mothers] want.... They prefer a little lower, one that does not hold their legs very high. In the HC, there are women who insist on delivering on the ground” (PHCU 3). A PHCU coordinator agreed, recognizing “They need privacy. A mother would not prefer to come to the health center and getting on the delivery couch and delivering with her feet hanging down the couch” (PHCU 7).

Separation from family members during labor

Some participants felt that women would prefer to receive care from or be near their families during delivery, which was not always possible at the health centers. A health center director explained that “some mothers are not comfortable when we tell relatives

who came with them to wait outside” (PHCU 3). Another health center director concluded that women preferred to give birth at home with their mother or aunt instead of a trained but unfamiliar nurse or midwife.

Participants felt that these factors – concern for modesty, unease around unfamiliar or male caregivers, distaste for hospital-style delivery beds, and the possibility of being separated from family members – were antithetical to the cultures of the communities served by these health centers. They attributed these factors to the low take-up of facility-based delivery in their catchment areas.

Environmental and financial barriers

Three additional and well-recognized barriers that kept pregnant women from accessing facility-based delivery services were also identified. These included long distances between communities and health care facilities; the poor roads and lack of reliable transportation; and the cost of health center services as factors that kept pregnant women away. While participants identified some positive steps – such as developing an ambulance service and reducing or eliminating fees for childbirth services – most felt that additional action was necessary to increase access to facility-based delivery services.

Geography and transportation

Geographic barriers to accessing services were described by participants from all 7 health centers. One health center staff member said simply, “Distance and transportation problems are their biggest challenges” (PHCU 4). A health center director described the distances between villages and his health center:

“One of the places under our catchment areas is as far as six hours walk from here. Mothers deliver on the road on their way here. The nearest are 17-20 kilometers [from here] and it is very difficult to bring a pregnant woman all the way here. All these things together are preventing mothers from coming here and delivering at the health center.” (PHCU 7)

The long distances, lack of transportation, and geographic barriers, combined with the unpredictable nature of labor and childbirth, created challenges for patients and providers. One HEW explained that “ a mother might come to the health center for delivery early and when we tell her that it is not the time and that she should go back home, this creates an inconvenience for the mother, because her house might be far away” (PHCU 2).

Some regions had taken steps to address the problem of distance and transportation by creating ambulance services, either independently or with the help of an NGO. In one region, a health center Director explained the benefits of such a service:

“There is an ambulance service for remote rural areas in the health center.

They call us whenever there is a delivery and we go there and bring the expectant mother with the ambulance to the health center. As a result of this, most of the women who use the delivery services are women from rural areas.” (PHCU 1)

Although most participants praised efforts to expand transportation options, others noted that ambulance systems had limitations. One PHCU coordinator explained that the local ambulance only took patients from the health center to the nearest hospital:

“We have an ambulance. But the ambulance works in the city and only goes from here [the health center] to *Wukro* [the hospital]. It does not go to health

posts in our catchment area... It is administered by the Red Cross, not by the *Woreda*. They do not allow such things because they say that they do not have the fuel for that and since the road would not be nice as it is here the ambulance would be out of order.” (PHCU 3)

In another case, a single ambulance was not enough to meet the community’s need: “This is a very large *woreda*; therefore, it would have helped if we had at least two ambulances. If [the ambulance brings] one woman, and if there is another woman out there who needs [an ambulance], it would take 4 or 5 hours to get to her” (PHCU 7).

Cost of facility-based services

Some participants felt that the costs of facility-based delivery – sometimes caused by a lack of transportation – kept women away. A health center director in one catchment area described the cost of human transportation:

“It is cheaper to deliver at home because the traditional midwives would only charge may be 20 or 30 birr [approximately 1 U.S. dollar]. But if they come to the health center to deliver, they may have to spend more than 70 birr because they would have to treat the person who carries them here to food and drinks, and there may also be other costs.” (PHCU 4)

Other costs were directly related to childbirth. A PHCU coordinator explained: “Besides PMTCT service they [mothers] have to pay to get other services -- for example, any drugs or if they are directed to get other tests they have to pay for it. So if these services were provided free of charge, [I] am sure more and more mothers will come to the institution” (PHCU 2).

At other sites, health workers emphasized that while women had previously been required to pay some or all of the costs of antenatal care and delivery, such services were now being offered for free. As a health center director said,

“Women used to pay for antibiotics, incisions and other services during delivery. However, that is not the case anymore; all the services are given for free, plus the quality of the delivery service has improved as we have additional staff members, like midwife. I believe these measures need to be kept to encourage more visitors to the health center for delivery. It is showing good changes already” (PHCU 1).

Participants were frank in how geographic barriers and a lack of reliable transportation kept women from accessing care, and were also realistic in their assessment of how such barriers could be addressed. Financial issues were somewhat easier to address; participants felt that publicizing the fact that labor and delivery services were available at reduced costs or for free could encourage more women to take advantage of this care.

Discussion

Our findings suggest that health system improvements may be critical for increasing the number of facility-based births among rural populations in low-income settings. Certain improvements, such as increasing the numbers of staff, providing additional training, and improving PHCU infrastructure and availability of supplies, are relatively resource-intensive and may prove difficult for facilities to implement. Others, however, such as allowing women freedom to choose their labor positions and permitting family in the birth

space, are much less costly and, according to our findings, could be potent interventions. Furthermore, changing providers' hostile and disrespectful attitudes and behavior directed towards pregnant women could be a critical and potent intervention that although potentially complex, could also be relatively low cost. Additional research is needed to understand the underpinnings of these hostile attitudes to inform strategies for improving the patient-provider relationship.

Other factors – such as long distances and physical barriers like mountainous terrain – are more difficult to address. It is possible that some gains could be made by the increasing efforts of nonprofit and government agencies to improve ambulance services to these rural areas. In the absence of massive investments in Ethiopia's roads and bridges, however, the most effective way to expand access to skilled delivery services to the most remote areas may be the network of HEWs and health posts, provided that the HEWs can receive sufficient training and the health posts are equipped to deal with uncomplicated labor and delivery.

Health care providers offer unique perspectives of the health system infrastructure that is less commonly found among women in the community, particularly in settings like Ethiopia where the facility-based birth rate is low. Other recent studies conducted among women in Ethiopia identify sociodemographic characteristics (such as education or residential place), reproductive history, transportation availability and cost, aspects of empowerment, and perceptions of quality of care as common barriers to facility-based deliveries (Abebe, Berhane, & Girma, 2012; Fikre & Demissie, 2012; Shiferaw et al., 2013). One recent study reported insights from a small sample of health care providers from a single health center, which identified inadequate institutional resources and lack of

sensitivity to comfort as impediments to facility-based births (Shiferaw 2013). Our study is consistent with these results and with results from larger surveys including Ethiopia's 2008 Emergency Obstetric and Neonatal Care initiative (Federal Ministry of Health of Ethiopia, UNICEF, UNFPA, WHO, & AMDD, 2009) and 2011 Demographic and Health Survey (Central Statistical Agency [Ethiopia] and ICF International, 2012). These studies collectively thus provide consistent evidence for the need to focus on the access to facilities and the quality of service delivery. Our study also expands upon them by focusing exclusively on the provider perspective and by offering evidence from providers to support aspects of delivery care commonly reported by women that are dissatisfying and likely contributing to their non-use of healthcare facilities for delivery (Kruk et al., 2009; Kruk, Paczkowski, et al., 2010; Kruk, Rockers, et al., 2010). The perspectives of the health care providers in our study also supply additional detail about their own experiences within the facility that could explain their attitudes (e.g., too few health center staff) and suggest their awareness and readiness for change.

Our findings should be interpreted in light of the potential limitations of the study. First, the study included professionals from relatively few PHCUs; however, the PHCUs were diverse in terms of performance and geographic location, and we selected a range of types of health professionals for participation in interviews. Nevertheless, the transferability of our findings would be strengthened by replication of this study with larger samples and in other geographies of Ethiopia, including the emerging regions of Ethiopia, which may face different challenges. Similarly, the study focused on a single country. Second, this qualitative study was not designed to assess the statistical significance of the factors that we identified as influencing pregnant women's decisions to deliver at home. Finally, we did

not examine the perceptions and decision-making processes of pregnant women themselves; instead, we provide rich detail about the kinds of issues women face in facility delivery as perceived by providers. These insights address institutional or systems factors that may be amendable to interventions such as those described above. Nonetheless, addressing factors on the provider side may only prove to be part of the remedy.

There are also a number of strengths to our study. Participants were diverse with regard to their occupation, their responsibilities within the PHCU, their geographic location, and performance level of their PHCU at providing delivery services. Despite this diversity, the commonalities in participants' perceptions of facility births were reflected in the recurring and unifying themes reported. We also utilized a number of recommended strategies to ensure rigor: consistent use of an interview guide; audio-taping and independent transcription; standardized coding and analysis; and an audit trail to document analytical decisions (Curry, Nembhard, & Bradley, 2009).

In summary, local health care providers offer valuable insight into why many rural Ethiopian women deliver their babies at home, despite major efforts to promote facility-based delivery services. For instance, our data reveal that women continue to deliver at home not only due to the long and difficult travel to a facility but also because they believe they will be treated poorly by health center staff and they may prefer privacy for the birthing process. Their perspectives underscore the importance of a patient-centered approach to delivery services, which is often lacking in low-resource settings but, based on our findings, may be fundamental to encouraging facility-based deliveries. Investing in patient-friendly approaches to care therefore may be critically important to complement more technical aspects of care, such as equipment, medication, and clinical training.

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Table 1. Number of interviews by PHCU role

Role of interviewee	Number of interviews
EMRI Clinical Mentor	3
Nurse/Midwife	7
Health Center Directors	7
Health Extension Worker (HEW) supervisor	6
Health Extension Worker (HEWs)	7
Primary Health Care Unit (PHCU) coordinator	6
Volunteer Community Health Promoter (VCHPs)	7
Woreda official	3
Total	46

Table 2. Emergent key themes and related factors

Key themes	Specific deterrent factors
Inadequate institutional resources	<p>Too few health center staff</p> <p>Poorly trained health extension workers</p> <p>Unprofessional staff</p> <p>Health facility infrastructure and supplies</p>
Features of facility-based delivery inconsistent with women's preferences	<p>Lack of sensitivity to modesty</p> <p>Uncomfortable delivery beds/couches</p> <p>Separation from family members during labor</p>
Environmental and financial barriers	<p>Geography and transportation</p> <p>Cost of facility-based services</p>