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## ENHANCING UTILIZATION OF HEALTH FACILITY-BASED DELIVERY AMONG ATTENDEES OF FOCUSED ANTENATAL CARE IN SLUM RESIDENTS OF ADDIS ABABA, ETHIOPIA

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5 **ENHANCING UTILIZATION OF HEALTH FACILITY-BASED DELIVERY AMONG**  
6 **ATTENDEES OF FOCUSED ANTENATAL CARE IN SLUM RESIDENTS OF ADDIS**  
7 **ABABA, ETHIOPIA**  
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25  
26 **ABSTRACT**

27  
28 **Objective:** The purpose of this study was to explore factors influencing utilization of health  
29 facility-based delivery among attendees of FANC in Slum residents, Addis Ababa- Ethiopia.  
30

31 **Setting:** Public health facilities (3 health center and 1 District hospital).  
32

33 **Study Design:** A qualitative exploratory and descriptive research design was used.  
34

35 **Study Participants:** Study participants comprised of women of reproductive age group (18-49  
36 years) living in Slum areas of Addis Ababa, Ethiopia. Data were collected through Individual  
37 interviews. Data were analyzed concurrently with data collection. Thematic analysis was done for  
38 the study.  
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41 **Results:**

42 From the analysis of individual interview data, four (4) themes emerged, namely, perceived  
43 benefits of home delivery, knowledge deficit about health facility-based delivery, poor access to  
44 health care facilities and inadequate resources. These themes were identified as rich and detailed  
45 account of the perspectives of facility-based and home delivery among attendees of FANC in  
46 Addis Ababa, Ethiopia.  
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49 **Conclusion:** As public facilities are the primary suppliers for the general population, mainly for  
50 underprivileged groups, humanising the quality of ANC services at those facilities is  
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3 indispensable. Improving the skills of staff and their attitudes through in-service trainings and  
4 Behaviour change communication (BCC) is also vital.  
5

6 **Key words:** Women, Utilization, Health facility-based delivery, focused antenatal care, Slum  
7 residents, Ethiopia.  
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### 10 **Strengths and limitation of the study**

- 11 • This study is the first to explore factors underlying the contrasting pattern between high  
12 ANC utilization rates and low utilization of health facility-based delivery among attendees  
13 of FANC in Slum residents of Addis Ababa- Ethiopia.  
14
- 15 • The study was conducted only in public health facilities of Addis Ababa, Ethiopia. The  
16 perspectives of women attending FANC in private facilities and delivered at home were not  
17 explored in the study.  
18
- 19 • The findings of this study applied to similar population in the study setting.  
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## 26 **BACKGROUND**

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29 Maternal mortality related to pregnancy and childbirth remains high globally even though it has  
30 declined by 44% from 385 deaths per 100 000 live babies in 1990 to 216 per 100 000 live births in  
31 2015[1]. The same authors mention that 3.9 million women will die from maternal causes in the  
32 next fifteen years if the current reduction rate of 2.9% in maternal mortality continues. The  
33 implication is that there is an urgent need to accelerate the drop in maternal mortality rate (MMR)  
34 in order to achieve the sustainable development goal 3.1 of reducing the global maternal mortality  
35 ratio to less than 70 per 100 000 live births by the year 2030 with no country having a maternal  
36 mortality rate of more than twice the global average[2]  
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43 According to Ethiopia's Federal Ministry of Health (FMoH), the maternal mortality rate dropped  
44 significantly by over 30% in five years. The 2016 Ethiopian Demographic Health Survey (EDHS)  
45 report indicates that more than 1400 mothers per 100,000 live births died in 1990, and the mortality  
46 rate dropped to 801 in 2000, 673 in 2005, 600 in 2011 and 412 per 100,000 live births in 2016. The  
47 decline was attributed to the government's interventions and commitment through expanding  
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3 emergency obstetric care services during labour with skilled birth attendants helping mothers in  
4 thousands of health facilities across the country[3].  
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7 In addition, enhanced knowledge of mothers in antenatal and postnatal care, provided by tens of  
8 thousands of health extension workers and other community interventions mainly in rural parts of  
9 the country contributed to the reduction of maternal mortality in the country[3]  
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13 However, tens of thousands of mothers still die every year in Ethiopia due to childbirth-related  
14 complications, the major ones being hemorrhage, hypertension and infection. According to  
15 Ethiopia's FMOH [4], a 75% reduction in the maternal mortality rate was planned for 2015 though  
16 the country managed to achieve 72%. The government of the Federal Democratic Republic of  
17 Ethiopia (FDRE) aims to reduce the maternal mortality to 199 per 100,000 live births in 2020 and  
18 70 or less by 2030 in line with the target set by the World Health Organization (WHO). The target  
19 set by World Health Organization (WHO) is achievable because most of maternal deaths are  
20 preventable if access to ANC in pregnancy, skilled care during delivery and care and support in the  
21 weeks after childbirth were increased[3, 5]  
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29 One of the key and proven interventions to reduce maternal mortality related to childbirth is to  
30 increase the number of women who deliver in a health facility [6-9]. Facility-based delivery  
31 increases skilled attendance at birth by ensuring proper management of childbirth complications  
32 and or timely referral of delivering women to higher levels where childbirth complications can be  
33 better managed[7]. Annette et al[6] state that maternal mortality reduces by 52% worldwide when  
34 women deliver in health facilities. According to Kebede, Hassen and Teklehaymanot[10] in almost  
35 all countries where more than 80% of deliveries are attended by health care professionals, the  
36 maternal mortality rate is less than 200 per 100 000 live births.  
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44 Even though there was a decline in the MMR (600 in 2011 and 412 per 100,000 live births in 2016)  
45 and an increase in the proportion of women who received ANC from a skilled provider (33% in  
46 2011 to 62% in 2016), the decline in unskilled or home deliveries and the increase in institutional  
47 deliveries were not substantial. For example, home deliveries declined from 90% in 2011 to 73% in  
48 2016, whilst institutional deliveries increased from 10% in 2011 to 28% in 2016[3]. Despite the  
49 efforts of Ethiopia's government to promote health facility-based delivery in the country, the  
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majority of births (an estimated 85%) still takes place at home[10], including Slum residents of Addis Ababa, the capital city of Ethiopia.

The low utilization of maternal health care services, in particular health facility-based delivery services thus explains the slow rate at which MMR dropped during the five year period 2011-2016. There is therefore a need to accelerate the decrease in MMR and the increase in facility-based deliveries if the sustainable development goal 3.1 is to be achieved[2]. The purpose of this study was to explore factors influencing utilization of health facility-based delivery among attendees of FANC in Slum residents, Addis Ababa- Ethiopia.

## Methods

### Study setting

The present study was conducted from February to April 2018 in public health facilities in Addis Ababa, Ethiopia. Three (3) health centers and one district hospital were purposively selected for the present study. The public health facilities were selected because they attended to high number of women who attended FANC but attended to less skilled deliveries in the past year preceding the study.

### Study Design

A qualitative exploratory and descriptive research design was used to achieve the objective of the study.

### Study population and sampling strategy

Study participants comprised of women of reproductive age group (18-49 years) living in Slum areas of Addis Ababa, the capital city of Ethiopia. Purposive sampling strategy was used to select women who were able to provide rich information that adequately answered the research questions because of their experience of FANC, facility-based and home delivery. The women who met the eligibility criteria were contacted through the midwives/nurses in-charge of the maternal and child health units of the selected hospital and health centers to discuss the purpose of the study, the study activities and request for participation in the study. The researcher ensured that all women who agreed to take part in the interviews were given the necessary information regarding the interviews, and they were followed into the communities where the health facilities are located.

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In order to be included in the study, the participants had to be women who attended FANC in selected health facilities and had given birth to babies at home in the past one year preceding data collection, communicates well in Amharic (Local working language), and reside in Addis Ababa for at least 6 months. Exclusion criteria comprised women who attended FANC but had not experienced home delivery.

## Data Collection

Individual face-to-face interviews were used to collect the data. The researcher conducted individual interviews with women who attended FANC, and had delivered live babies at home in the past one (1) year preceding the data collection for the study. The central question that was asked was *“What were your reasons for attending FANC (which promotes the use of skilled attendance at birth) but decided to deliver your baby at home and not at the health facility?”* Additional questions included: What prompted you to attend antenatal care? How many times did you receive ANC during this pregnancy? What were the benefits of attending antenatal care for you? What information did you receive from the health care providers about health facility based delivery? What is your opinion regarding delivering a baby in the health facility? What are the benefits of going for institutional delivery? Would you recommend health facility delivery to your friends? Individual interviews were conducted until saturation, which was reached after eight (8) interviews, when additional data did not lead to any new emergent codes and themes. The number of participants in qualitative research is adequate when data saturation is achieved. According to Hancock, Amankwaa, Revell and Mueller[11] the qualitative research “gold standard” for quality research is data saturation. The same authors explain that data saturation or adequacy is reached when there are no new emerging ideas of information in the data, the point in coding when no new codes occur in the data [11, 12].

During the interviews, a favourable, non-threatening and relaxed environment was created when the researcher introduced himself to the participants, explained the interview process. The interviews took place in the private rooms of selected health facilities. With the permission of the participants, the individual interviews were audio-recorded and notes were written during the interview in order to capture the original accounts of the participants’ responses and to verify their



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3 interpretations by referring back to the original responses. The researcher conducted the interviews  
4 in Amharic in a quiet and private room, free from disturbances, and where they felt safe.  
5 Individual interview session lasted for about 30-50 minutes.  
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### 8 **Patient and Public Involvement**

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10 Patients were not involved in this study. Including Patient and Public Involvement (PPI) statements  
11 aligns closely with *BMJ Open*'s values of transparency and inclusiveness. We hope that including  
12 PPI statements in all articles is the first step of many for *BMJ Open* in encouraging patient  
13 involvement.  
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### 16 **Data Analysis**

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18 Data were analyzed concurrently with data collection. All Individual face-to-face interviews were  
19 transcribed from the audio-recordings and notes made during the interviews and translated into  
20 English. Thematic analysis was done for the study.  
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24 The data collected were stored electronically as audio recordings to use as a form of backup and the  
25 transcriptions and notes were stored as MS word files. The MS word files were password protected  
26 to ensure confidentiality. The researcher used Techs' eight steps of qualitative data analysis method  
27 for analysing data from individual interviews[13]  
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### 30 **Patient and Public Involvement**

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34 PPI statements in all articles is the first step of many for *BMJ Open* in encouraging patient  
35 involvement.  
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### 38 **Research Findings**

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40 From the analysis of individual interview data, 4 (four) themes emerged. These themes were  
41 identified as the rich and detailed account of the perspectives of facility-based and home delivery  
42 among attendees of FANC in Addis Ababa, Ethiopia.  
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### 45 **Theme I: Perceived benefits of home delivery**

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47 The first theme that emerged from data analysis was *perceived benefits of home delivery*. Within  
48 the theme, 3 (three) categories *support, familiarity and warmth of the home setting and*  
49 *affordability of home delivery* emerged. The sub-categories were as shown in table 1  
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**Table 1: Theme I: Perceived benefits of home delivery**

Theme	Categories	Sub-categories
Perceived benefits of home delivery	Support available during home delivery	Partner, family and neighbors' supportive presence at birth
	Familiarity and warmth of the home setting	Familiar, comfortable and convenient home setting
	Affordability of home delivery	The cost of health facility-based delivery services too high

### Partner, family and neighbours' supportive presence at birth

The findings revealed that benefits of home delivery (as perceived by the participants) was one of the reasons women decided to deliver their babies at home and not at the health facilities. Some of the participants indicated that the presence of partners, family members, friends and neighbours offer the required support and assistance during delivery at home. Other participants perceived home delivery safe because of the confidence they have in experienced members of the community such mothers, grandmothers and neighbours who assist during delivery. Sample responses included;

“I am scared of delivering at a health facility alone because family members (especially my husband) aren't permitted to attend a woman in the labour room. I won't have such problems when I deliver at home.” (Participant 05).

“Men are not allowed to accompany their wives to labour ward for the reasons I don't know. What is wrong if he is allowed to stay with wife during childbirth?” (Participant 03)

“Yet, men aren't permitted to attend a woman in the labour room and only one female relative is sometimes allowed to be with a woman in labour ward” (Participant 02).

“I delivered at home without any problems and was assisted by my mother” ” (Participant 08).

“My grandmother asked me to wait a little longer at home. She told me to wait and I gave birth spontaneously. We have confidence in her (TBAs)” (Participant 04).

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5 “When labour started me at night I was alone because my husband was on field work. So, there  
6 was nobody else close to me. I then shouted to call my neighbors but I already delivered before  
7 they came” (Participant 01).  
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### 9 **Familiar, comfortable and convenient home setting**

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11 The findings revealed that some of the participants identified familiarity with home setting and  
12 warmth of the home setting as another benefit of home delivery, in that at home one can rest  
13 comfortably in own bed. This finding was apparent in the following sample responses;  
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18 “At home, you can rest in *your* bed after delivery, and your family and friends feed you porridge  
19 “(Participant 05).  
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22 “I would have lost the comfortable house where my close families, relatives and neighbors nearby  
23 me, had I gone hospital for delivery” (Participant 07).  
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25  
26 One participant mentioned the immediate celebration of the birth of child by women singing  
27 traditional songs as one of the benefits of home delivery. In addition, she mentioned caring and  
28 feeding of the mother by the neighbours. This is what she said *‘Following childbirth, neighboring  
29 women will make some porridge and will serve the woman. They (women) will celebrate this  
30 special occasion with singing traditional songs and eating porridge. If childbirth takes place in  
31 the facility, you miss this wonderful event and the warmth of your home. I think this ceremony is  
32 unique to Ethiopian women (Participant 01).*  
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### 39 **Cost of facility-based delivery too high**

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41 The high cost of delivering at a health facility was mentioned as one of the reasons women decide  
42 to deliver their babies at home. The sample response  
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44 “You know you need someone who arranges taxi and pays money for it.to go to health facility”  
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### 48 **Theme II: Knowledge Deficit**

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50 The second theme that emerged from data analysis was knowledge deficit. Within the theme, two  
51 categories inadequate information received from the health professionals and beliefs about home  
52 and facility-based delivery emerged. The sub-categories were as shown in table 2.  
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**Table 1 Theme II: Knowledge deficit**

Theme	Categories	Sub-categories
Knowledge deficit	Inadequate information received from health professionals	Lack of knowledge about facility-based delivery
	Perceptions of home and facility-based delivery	Home delivery is for normal delivery Unnecessary procedures carried out at health facilities

### **Lack of knowledge about facility-based delivery**

According to the study findings, lack of knowledge about facility-based delivery influenced the women's decision to give birth at home. Some of the participants stated that they did not know about the facility-based delivery service at public health facilities. Sample responses in that regard included:

"We must been told the significance of health facility delivery by the service providers at the ANC clinic. Nobody raised the issue to us. So, we decided to give birth at home. There is a TBA in our community and she was called and assisted me" (Participant 02).

"The nurse I was attended to by was busy and she only checked my abdomen and gave me an appointment to return. Otherwise, I don't recall anything I was told about facility delivery" (Participant 05).

"I didn't receive any information about delivering in a facility. She (the midwife) only checked me and told me to come on the next appointment.... I guess it is because they are at times busy or they might not well prepared to do so (Participant 01).

### **Perception that home delivery is for normal delivery**

The study findings revealed some participants' perceptions of home delivery that made them decide to give birth at home, even though they attended FANC. The finding was evident in the following sample responses;

"I delivered my last child at home because it was normal delivery, however, I would have gone to hospital had any complication occurred " (Participant 08).

"If I encounter difficulty to deliver in my home I can go there at last while labour is prolonged and painful.

Otherwise, why should I visit a health facility while I am healthy? " (Participant 05).

"I delivered 5 children at home being assisted by TBA, my families and relatives. You will continue to deliver at home if you deliver the first child at home" (Participant 02)

### **Perception that unnecessary procedures are carried out at health facilities**

According to the study findings, some of the women had a perception that unnecessary procedures are carried out at health facilities during delivery. Sample responses in that regard included:

"Lots of women are cut and stitched for the reasons I don't know. For example, if one goes to private hospital, almost every one of them deliver by operation." (Participant 01)

"Fear of Caesarean section delivery discourage us [women] to come for health facility-based delivery" (Participant 08)

### **Theme III: Poor Access to Health Facilities**

The third theme that emerged from data analysis was poor access to health facilities. Within the theme, two categories lack of transport and financial constraints emerged. The sub-categories were as shown in table 3.

**Table 2 Theme III: Poor access to health facilities**

Theme	Categories	Sub-categories
Poor access to health facilities	Lack of transport	Inaccessible and inadequate ambulance service Lack of prior arrangement for transport Distance and poor roads
	Financial constraints	Lack of emergency and complications readiness planning

#### **Inaccessible and inadequate ambulance service**

According to the study findings, the participants ended up giving birth at home because of poor access to health facilities. The difficulty of getting transport, in particular ambulance services to the health facility, especially at night resulted in women delivering their babies at home. Sample responses included;

"In the night, it is difficult to get the ambulance as fast as you need it." (Participant 01)

"There is limited access to ambulance service mainly in the night." (Participant 06)

"Sometimes, driver doesn't respond to the telephone call and, the woman will deliver at home" (Participant 03)

### Lack of prior arrangement for transport

Planning for childbirth include decisions about the location of delivery, transportation planning and money to pay for the childbirth. The findings of the study revealed that study participants did not arrange for transportation to a health facility. This was evident in the sample responses;

“We didn’t arrange transportation before”.

“I delivered this baby at home because labor started in the night while it was heavily raining, and there was no time to arrange transport” (Participant 02).

### Distance and poor roads

According to the study findings, the long distance to the health care facilities, as well as the bad state of the roads diminished access to health care facilities. One participant explained “*My home is a bit far from the main road and a taxi can’t come in because of the bad road (cobblestone was under construction);* (Participant 04).

### Lack of emergency and complications readiness planning

The study findings identified lack of funds in an emergency as a barrier to utilization of facility-based delivery

“You know you need someone who arranges taxi and pays money for it.to go to health facility (Participant 03).

Two mothers reported that they delivered at home because labour was unpredictably too fast, and did not give their families a chance to reach the health facility for delivery. Childbirth after an unusually rapid labour, culminating in the rapid and spontaneous expulsion of the infant is called precipitate delivery. In precipitate delivery, the first and the second stage of labour are combined, and the duration of labour is under two to three hours[14]. The sample responses included;

“*Suddenly, I went into labor pain after midnight (at 1pm) and delivered normally my last child at about 2 pm. There is a well-known TBA in our community and she came and assisted me*” (Participant 08).

“I delivered this baby at home because labor started in the night while it was heavily raining, and the baby was born soon” (Participant 06).

These findings are similar to the findings, which were reported in previous studies by Alabbi, O'Mahony, Wright and Ntsaba [15] and Yakubu, Benyas, Emil, Amekah, Adanu, and Moyer [16].

#### **Theme IV: Inadequate Resources**

The fourth theme that emerged from data analysis was inadequate resources. Within the theme, two categories inadequate skilled health professionals and inadequate equipment emerged. The sub-categories were as shown in table 4.

#### **Theme IV: Inadequate resources**

Theme	Categories	Sub-categories
Inadequate resources	Inadequate skilled health care professionals	Perceived incompetence among health care professionals Negative attitudes of health care professionals and poor service at health facilities
	Inadequate equipment	Inadequate beds/ supplies

#### **Perceived incompetence among health care professionals**

From the participants' perspective, inadequacy of both skilled health care professionals and equipment are some of the reasons some women do not use health care facility-based delivery services. The findings revealed perceived incompetence of health care professionals, lack of knowledge, skill and appropriate attitudes to care for pregnant women during pregnancy and childbirth as reasons women do not go for health facility-based delivery. The participants expressed confidence in traditional birth attendants. Sample responses include

"I was really upset with how they took care of me when I delivered my first child in the health center. She [the nurse] who attended to me didn't even know how to manage removal of the placenta, and the baby. It seemed that she didn't get proper training or she lacked some experience" (Participant 01).

"We have confidence in traditional birth attendants" (Participant 04).

## Negative attitudes of health professionals and poor service at health facilities

The findings of the study revealed that women did not choose facility-based delivery because of negative attitudes of health care professionals and poor service at health facilities. Many participants mentioned physical and verbal abuse, lack of respect and lack of sympathy at the hands of midwives and nurses. These findings were evident in the following sample responses;

“That some of the midwives, they even beat you, and scream on you, they don’t have tolerance for you. They are verbally abusive, impolite, and lack sympathy” (Participant 01).

“There are some negligent staff. We go there to get their help, but they talk and chat about their private issues. So, it is not advisable to go there” (Participant 03)

“While I delivered my second baby at a health center I was in pain and shouting for help to the midwife who was chatting with her friends. She didn’t show any concern to me and one physician also came and yelled at me. I suggest that these people have to in the first place respect their clients and also know their professional duties and responsibilities” (Participant 06).

## Inadequate equipment (beds, BP apparatus, bed sheets and thermometers)

The participants stated that the equipment required for providing quality care at health care facilities was inadequate. According to the findings, there was shortage of beds, bedsheets, blood pressure monitoring equipment, as well as thermometers, resulting in women in early labour sent home. Some of the women indicated that the health professionals sent them back home because there were no beds, hence the home delivery even though they had planned to have facility-based delivery. Sample responses included; “For me, I don’t think delivering at home is safe. I wanted to give birth at health facility but they returned me home because the contractions weren’t strong and there weren’t sufficient admission beds in the health center” (Participant 04).

“I went to deliver my first born child and they sent me home and I delivered that evening at home. So, if there were enough delivery beds I wouldn’t deliver at home” (Participant 05).

“Due to shortage of beds, some women are referred from one facility to another. At times, the health facilities even don’t have gloves, bed sheets, drugs, equipment like thermometer and BP apparatus” (Participant 08).



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“Let me tell you my own story. I was referred to hospital due to heavy vaginal bleeding when delivered my second baby. There was no BP apparatus in the hospital except one at the emergency room. There are staff, hospital and patients but no BP apparatus even in that big hospital” (Participant 02).

## Discussion

### Perceived benefits of home delivery

According to the findings, the women who took part in this study chose home based delivery because of the supportive presence of family and neighbours during childbirth as well as the comfort and convenience of the home environment. These findings were consistent with findings of previous studies. Adinew and Assefa [17] reported similar findings that Ethiopian women who took part in their study chose home-based and traditional birth attendants to facility-based delivery and health professionals, respectively. The same authors explain that the choice was based on the familiarity, comfort and convenience of the home environment. In addition the home environment does not limit the involvement of traditional birth attendants who are trusted by the community because of their status and the perceived quality of care (skill and warmth) they render during childbirth [18, 19]. According to the study findings, women indicated that the presence of family and traditional birth attendants provide physical, social and emotional support during childbirth. According to Bohren et al[20], Magoma et al[19], and Moyer, Adongo, Hodgson, Engmann and Devries[21] the availability of traditional birth attendants in the community might confirm a woman’s decision to give birth at home.

The findings also revealed that it is easier to deliver at home where women are able to use their own belongings and receive support from their neighbours. One participant said, “*At home, you can rest in your bed after delivery, and your family and friends feed you porridge*”. Gebrehiwot et al [18], Magoma et al [19] and Titaley, Hunter, Dibley and Heywood [22] reported similar findings. Another important finding was that traditional practices influenced some of the women’s decision to deliver at home and not at a health facility, evidenced in the sample response “*Following childbirth, neighboring women will make some porridge and will serve the woman. They (women) will celebrate this special occasion with singing traditional songs and eating porridge. If childbirth takes place in the facility, you miss this wonderful event and the warmth*

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3 *of your home. I think this ceremony is unique to Ethiopian women”* This finding is consistent with  
4 the results of previous studies [18, 19, 21].  
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8 Affordability of home delivery was mentioned as one of the reasons some of the women who  
9 participated in the study preferred home-based care delivery. Yaya, Bishwajit, Uthman and  
10 Amouzou [23] conducted a survey in Ethiopia and Nigeria to examine country level variations of  
11 the self-reported causes of not choosing to deliver at a health facility. The results of the same study  
12 identified cost as one of the barriers reported for not attending health facility delivery in both  
13 countries. Oyerinde et al[24] , and Ghazi, Moudi and Vedadhir[25] reported similar findings in  
14 Sierra Leone, and Iran, respectively. There is no need to arrange and pay for transport during a  
15 home birth.  
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## 22 **Knowledge Deficit**

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25 The findings of the study revealed that women’s lack of knowledge about facility-based delivery  
26 influenced their decision to give birth at home. The findings of the study are consistent with some  
27 of the previous studies that found that knowledge deficit regarding the benefits of health facility-  
28 based childbirth made women choose home delivery. Various researchers are of the opinion that  
29 ANC workers might not be effectively instructing women on the significance of facility-based  
30 delivery service possibly because of heavy workload and constrained time due to deliberate  
31 complex matters with their clients [19, 26-28]. The findings of the study also revealed a  
32 perception among some participants of the study that home delivery is for women who had a  
33 history of normal delivery. The study findings are consistent with the research done by Øxnevad  
34 [29] on perceptions and practices related to home-based delivery and a qualitative study by  
35 Bedford, Ghandi, Admassu and Girth[30] on the location of childbirth in rural Ethiopia. According  
36 to the findings of the same studies, the birthing process was considered a normal event, and  
37 women considered home delivery first and considered facility-based delivery only if complications  
38 arose.  
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50 The results of the survey that was conducted by Yaya et al [31], showed that one in four women in  
51 Ethiopia reported that it was not necessary to attend health facility-based delivery considering that  
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3 delivery is a natural phenomenon and not an ailment requiring health facility services. Kebede et al  
4 [10] conducted a quantitative study on factors associated with institutional delivery service in  
5 Ethiopia and found that women who faced problems during pregnancy were 2.8 times more likely  
6 to utilize health care facility-based delivery than those who did not face problems during  
7 pregnancy.  
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13 This finding is consistent with the Bohren et al [26] Multiple-level life course framework of  
14 facility-based delivery in low- and middle-income countries (LMICs) according to which the  
15 previous birth experiences may affect the women's choice of the location of delivery of the baby.  
16 For a woman who delivered her first child at home without difficulties, using a health facility-  
17 based delivery for subsequent deliveries may be regarded as unnecessary [26, 32, 33] point out  
18 that some women may consider that ANC attendance will reduce the likelihood of a difficult  
19 delivery, and that ANC may be viewed as a preventative method, guaranteeing a normal  
20 pregnancy and home delivery. This may explain why in some circumstances ANC coverage is  
21 almost universal while health facility-based delivery rates stay low [19, 26]  
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29 . According to the study findings, the perception of some of the women who took part in the study  
30 was that unnecessary procedures are carried out at health facilities. The findings are consistent with  
31 some of the studies that identified fear of cutting (caesarean section, episiotomy) during delivery as  
32 one of the factors that facilitated home-based delivery [19, 25, 26].  
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37 The multiple-level life course framework of facility-based delivery in low- and middle-income  
38 countries (LMICs) suggests that medicalization of childbirth may be one of the reasons women  
39 prefer home to facility-based delivery. According to the model, women in low- and middle-income  
40 countries may fear various undesirable interventions and procedures such as episiotomies and  
41 caesarean sections and may prefer to deliver at home. This fear is usually based on the perception  
42 that birthing is a "normal" process which is a woman's "natural rite of passage" with no basis for  
43 delivering at a health facility[18, 19, 26].  
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#### 49 **Poor access to health facilities**

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51 According to the findings of the study, poor access to health facilities played an important role in  
52 influencing women's location of delivery (home-based delivery in this study). The findings  
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3 indicate that the women who took part in the study failed to reach the health care facilities because  
4 of the difficulty of getting transport to the health facility at night, long distance to travel to the  
5 health facilities, poor conditions of the roads to health facilities and financial constraints. Similar  
6 findings were reported in a variety of previous studies [18, 31, 34]. A noteworthy finding is that  
7 women who attended FANC did not make plans for emergency and complications readiness plan,  
8 as it is expected in line with WHO [2]. The WHO recommends that all pregnant women develop a  
9 written plan for dealing with birth and any unexpected adverse events such as complications or  
10 emergencies that may occur during pregnancy, childbirth, or the immediate postnatal period [35] .  
11 Birth preparedness is the process of planning for a normal birth while complications readiness  
12 refers to anticipating the actions needed in case of an emergency. Emergency planning is the  
13 process of identify and agreeing all the actions that need to take place quickly in the event of an  
14 emergency, and that the details are understood by everyone involved, and the necessary  
15 arrangements are made. The plans should be discussed with the skilled attendant at every FANC  
16 assessment and one month before the expected date of birth [31, 35, 36].  
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### 28 **Inadequate Resources**

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31 The findings of the study revealed that women did not choose facility-based delivery because of the  
32 perceived incompetence and negative attitudes of health professionals, as well as poor service at  
33 health facilities. Similar findings were reported in previous studies. According to Adinew and  
34 Assefa [17], women who took part in their study chose home-based and traditional birth attendants  
35 to facility-based delivery and health professional respectively because of the skill and warmth  
36 demonstrated by the traditional birth attendants. A number of studies found that women were  
37 mistreated during childbirth in health facilities, hence the decision to give birth at home [17, 31, 37,  
38 38]. The same authors reported similar findings of disrespectful treatment, unskilled care, poor  
39 health provider client interaction as reasons women preferred to give birth at home. Bohren et al  
40 [26] conducted a systemic review with the aim of synthesizing qualitative evidence related to the  
41 facilitators and barriers to delivering at health facilities in low-and middle-income countries. Thirty  
42 four studies from 17 countries were included in the review, and in the majority of studies reports of  
43 disrespectful and abusive obstetric care were found.  
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3 The multiple-level life course framework of facility-based delivery in low- and middle-income  
4 countries (LMICs) suggests that previous birth experiences may be one of the reasons women  
5 prefer home to facility-based delivery. Bohren et al [26] state that a number of women decide their  
6 level of risk for difficult deliveries based on their previous experience of delivery practices and  
7 birth results. For example a woman might choose to give birth at a health facility if she had a  
8 previous positive experience of facility-based delivery[26, 32]. The findings of the study are  
9 inconsistent with WHO [2], which supports health system approach and strengthening regarding  
10 availability of supplies and positive pregnancy and delivery experience.  
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### 17 **Strengths and limitation of the study**

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19 This study is the first to explore the factors underlying the contrasting pattern between high ANC  
20 utilization rates and low utilization of health facility-based delivery among attendees of FANC in  
21 Slum residents of Addis Ababa- Ethiopia. It should also be clear that the emerged themes were  
22 substantiated by the local and global works. Hence, the findings are valuable to health  
23 organizations that need to improve the health facility- based delivery services. However, our study  
24 has some limitations. The study was conducted in public health facilities of Addis Ababa, Ethiopia.  
25 The perspectives of women attending FANC in private facilities and delivered at home were not  
26 explored in the study. The findings of this study applied to similar population in the study setting.  
27 Criticism related to qualitative research often refers to concerns of small sample, data interpretation  
28 and bias. In this study, however, the researcher was self-aware and cognisant of his immersion in  
29 the research process to allow the process to be as objective as possible. The researcher is of the  
30 view that the rich description of the sample, methods of data collection and the data analysis  
31 process reveal the translucent nature of the study. The researcher ensured that his beliefs, opinions  
32 and experiences about the phenomenon under study did not affect data collection and data analysis  
33 through use of bracketing. The researcher's gender (male nurse - midwife) and background did not  
34 in any way affect the data collection process and data analysis for the present study.  
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### 47 **Conclusion**

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49 Various studies conducted in different developing countries and in different part of Ethiopia  
50 revealed different determinants of place of birth. Some of these factors are similar to those found in  
51 the current study while others were different. Most of the studies used the quantitative approach,  
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3 while others used qualitative and mixed method research. The common factors in literature that  
4 were the same as those found in the study include the perceived benefits of home delivery, lack of  
5 access to health facility, absence of previous pregnancy related complications, women's lack of  
6 knowledge of the importance of FANC, misconceptions regarding FANC and home delivery.  
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11 In Ethiopia, researchers have documented a variety of the reasons women are not accessing facility-  
12 based delivery services. The findings of this qualitative study adds the existing body of knowledge  
13 on perspectives of attendees of FANC on home and facility-based delivery.  
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23 Bureau for providing us permission to conduct the study in public health facilities. Finally, the  
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25 their experiences, and voiced for other women. Our understanding was deepened through them.  
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### 30 31 **Authors' contributions**

32 **Sendo, EG** conceived of the research topic, designed the methods and materials, involved in the  
33 data collection, conducted Data analysis, drafted and finalized the manuscript. **ME, Chauke** and  
34 **M Ganga-Limando** participated in designing of the study, data analysis, interpretation and  
35 presentation of results and were involved in final revision of the manuscript. All the authors have  
36 read and approved the final manuscript.  
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### 41 42 **Competing interests**

43  
44 The authors declare that they have no competing interests.  
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# BMJ Open

## WHY SOME WOMEN WHO ATTENDED FOCUSED ANTENATAL CARE FAIL TO DELIVER IN HEALTH FACILITIES: A QUALITATIVE STUDY OF WOMEN'S PERSPECTIVES FROM SLUMS OF ADDIS ABABA, ETHIOPIA

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Secondary Subject Heading:	Health services research
Keywords:	Antenatal < GENETICS, Quality in health care < HEALTH SERVICES ADMINISTRATION & MANAGEMENT, Maternal medicine < OBSTETRICS

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5 2 **WHY SOME WOMEN WHO ATTENDED FOCUSED ANTENATAL CARE FAIL TO**  
6 3 **DELIVER IN HEALTH FACILITIES: A QUALITATIVE STUDY OF WOMEN'S**  
7 4 **PERSPECTIVES FROM SLUMS OF ADDIS ABABA, ETHIOPIA**

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20 12 **ABSTRACT**

21 13 **Objective:** The purpose of this study was to explore why some women who attended focused  
22 14 antenatal care (FANC) fail to deliver in health facilities from slums of Addis Ababa, Ethiopia.

23 15 **Setting:** Public health facilities (3 health centers and 1 District hospital).

25 16 **Study Design:** A qualitative exploratory and descriptive research design was used.

26 17 **Study Participants:** Study participants comprised of women of reproductive age group (18-49  
27 18 years) living in slum areas of Addis Ababa, Ethiopia. We used 20 in-depth audio-recorded  
28 19 interviews. Data were analyzed concurrently with data collection. Thematic analysis was done for  
29 20 the study. A multi-level life-course framework of facility-based delivery in low- and middle-  
30 21 income countries (LMICs) developed by Bohren, et al was used to frame the current study and link  
31 22 the findings of the study to the body of knowledge.

33 23 **Results:**

34 24 From the analysis of in-depth interview data, four themes emerged, namely, perceived benefits of  
35 25 home delivery, knowledge deficit about health facility-based delivery, poor access to health care  
36 26 facilities, and inadequate (demand side) resources. These themes were identified as a rich and  
37 27 detailed account of the perspectives of facility-based and home delivery among attendees of  
38 28 Focused Antenatal Care (FANC) in Addis Ababa, Ethiopia.

41 29 **Conclusion:** The findings of this qualitative study revealed that perceived benefits of home delivery,  
42 30 knowledge deficit about health facility-based delivery, poor access to health care facilities, and inadequate  
43 31 (demand side) resources were related to low uptake of the facility-based delivery services. Use ANC visits  
44 32 to advise women about Birth preparedness and complication readiness, the use of facility deliveries  
45 33 and risks of home delivery to the mother and the new-born.

49 34 **Keywords:** Women, Health facility-based delivery, focused antenatal care, slum residents,  
50 35 Ethiopia.

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5 39 **Strengths and limitation of the study**

- 6 40
- 7 41 • The analyzed data were based on information obtained from only women who delivered their last child at home in the last 12 months.
  - 9 42 • The perspectives of women attending FANC in private facilities and delivered at home were not explored in the study.
  - 12 44 • The information obtained from study participants could be subject to recall bias.
  - 14 45 • The researcher was self-aware and cognizant of his immersion in the research process to allow the process to be as objective as possible.
  - 16 47 • The findings of this study applied to a similar population in the study setting.
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20 50 **BACKGROUND**

21 51

22 52 Maternal mortality related to pregnancy and childbirth remains high globally even though it has

23 53 declined by 44% from 385 deaths per 100 000 live babies in 1990 to 216 per 100 000 live births in

24 54 2015[1]. The same authors mention that 3.9 million women will die from maternal causes in the

25 55 next fifteen years if the current reduction rate of 2.9% in maternal mortality continues.

26 56 Women's chance of dying from problems of being pregnant and childbirth through the span of her

27 57 lifetime is one in a hundred and sixty in Sub-Saharan Africa(SSA), paralleled to 1 in 3,700

28 58 in developed nations [2-4]. These same regions account for, 98% of about 3.3

29 59 million international neonatal deaths that occur every year. The implication is that there is an

30 60 urgent need to accelerate the drop in maternal mortality rate (MMR) in order to achieve the

31 61 sustainable development goal 3.1 of reducing the global maternal mortality ratio to less than 70 per

32 62 100 000 live births by the year 2030 with no country having a maternal mortality rate of more than

33 63 twice the global average[5].

34 64

35 65 In Ethiopia, even though there was a decline in the MMR (600 in 2011 and 412 per 100,000 live

36 66 births in 2016) and an increase in the proportion of women who received ANC from a skilled

37 67 provider (33% in 2011 to 62% in 2016), the decline in unskilled or home deliveries and the

38 68 increase in institutional deliveries were not substantial. For example, home deliveries declined

39 69 from 90% in 2011 to 73% in 2016, whilst institutional deliveries increased from 10% in 2011 to

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2  
3 70 28% in 2016[6]. Home delivery in our study is defined as a delivery that is not being attended by a  
4  
5 71 skilled health worker using a safe delivery kit; it is rather attended by non-trained women (the  
6  
7 72 majority of whom are family members or unskilled TBA) during delivery[7].  
8  
9 73 In city slums, the poor women are a tremendously liable and marginalized group with  
10  
11 74 unplanned/poor housing, no essential services, and low use of skilled care at delivery[2, 8].  
12  
13 75 Morbidity in urban poor populations is also influenced by way of social determinants such as social  
14  
15 76 gradient, social exclusion, social support, stress, and physical activity; and suboptimal health  
16  
17 77 behaviours [2]. Though there is no scientific evidence, a large number of urban populations in  
18  
19 78 Addis Ababa live in slums. These slums draw a high density of low- income employees and or  
20  
21 79 jobless individuals, with low levels of literateness. In spite of the efforts of Ethiopia's government  
22  
23 80 to promote health facility-based delivery in the country, the majority of births (an estimated 85%)  
24  
25 81 still takes place at home[9], including slum dwellers of Addis Ababa, the capital city of Ethiopia.  
26  
27 82 Still, there is no study on facility deliveries in urban slums of Addis Ababa. The purpose of this  
28  
29 83 study was to explore why some women who attended focused antenatal care (FANC) fail to deliver  
30  
31 84 in health facilities from slums of Addis Ababa, Ethiopia.

## 30 85 **Methods**

### 31 86 **Study design and setting**

32  
33  
34 87 A qualitative exploratory and descriptive research design was used to achieve the objective of the  
35  
36 88 study. The present study was conducted from February to April 2018 in public health facilities in  
37  
38 89 Addis Ababa, Ethiopia. Three health centers and one district hospital were purposively selected  
39  
40 90 for the present study. The public health facilities were selected because they attended to a high  
41  
42 91 number of women who attended FANC but attended to less skilled deliveries in the past year  
43  
44 92 preceding the study. In this study, a slum household is defined as a group of individuals living  
45  
46 93 under the same roof lacking one or more of the following conditions: access to improved water,  
47  
48 94 living on petty trade/ daily labor, access to improved sanitation, sufficient living area, and  
49  
50 95 durability of housing. The study included the slums dwellers of Ketchne and Kolfe Keraniyo,  
51  
52 96 which are mainly low-income residential areas and are characterized by a large number of poor  
53  
54 97 people in the city center.

53 98

## 99 Study population and sampling strategy

100 Study participants comprised of women of reproductive age group (18-49 years) living in slum  
 101 areas of Addis Ababa, the capital city of Ethiopia. The purposive sampling strategy was used to  
 102 select women who were able to provide rich information that adequately answered the research  
 103 questions because of their experience of FANC, facility-based, and home delivery. The women  
 104 who met the eligibility criteria were contacted through the midwives/nurses in-charge of the  
 105 maternal and child health units of the selected hospital and health centers to discuss the purpose  
 106 of the study, the study activities, and request for participation in the study. Then the researcher  
 107 approached all women who agreed to take part in the interviews face-to face and they were  
 108 followed into the communities where the health facilities are located.

109 In order to be included in the study, the participants had to be women who attended FANC in  
 110 selected health facilities and had given birth to babies at home in the past one year preceding data  
 111 collection, communicates well in Amharic (Local working language), and reside in slums of  
 112 Addis Ababa for at least 6 months. Exclusion criteria comprised women who attended FANC but  
 113 had not experienced home delivery. We contacted 30 eligible women for the interview and  
 114 interviewed 20 of them. Ten women contacted were not engaged in the interviews, 3 as of  
 115 relocation out of the study setting, 7 they were busy, and refused to participate (Table 1).

116 Table 1: Sampling (N = 20)

Health facilities	Younger women (<24yrs)	Older women (25 yrs. and above)
HC 1	2	2
HC 2	2	3
HC 3	3	2
District Hospital	3	3
Total	10	10

## 118 Data Collection

119  
 120 The principal author with the trained female research assistant conducted in-depth face-to-face  
 121 interviews. An interview guide was used to outline the open-ended topics in English and Amharic.  
 122 The interview guide used in this study was attached as 'Annex 1'.

1  
2  
3 123 The researcher piloted the interview schedule on three women who met the set eligibility criteria.  
4  
5 124 These women were not included in the main study. The results were not included in the main  
6  
7 125 study as the purpose was to test whether the research questions generated appropriate  
8  
9 126 responses. The pilot study helped the researcher to improve the interview guide. Some changes  
10  
11 127 were made due to the issues that emerged during the pilot study. For example, some questions were  
12  
13 128 rephrased and sequentially aligned.

14  
15 129 The interviews covered the central question “What were your reasons for attending FANC (which  
16  
17 130 promotes the use of skilled attendance at birth) but decided to deliver your baby at home and not at  
18  
19 131 the health facility? Additional questions included: What prompted you to attend antenatal care?  
20  
21 132 How many times did you receive ANC during this pregnancy? What were the benefits of attending  
22  
23 133 antenatal care for you? What information did you receive from the health care providers about  
24  
25 134 health facility-based delivery? What is your opinion regarding delivering a baby in the health  
26  
27 135 facility? What are the benefits of going for institutional delivery? Would you recommend health  
28  
29 136 facility delivery to your friends? In-depth interviews were conducted until saturation, which was  
30  
31 137 reached after 20 interviews when additional data did not lead to any new emergent codes and  
32  
33 138 themes. The number of participants in qualitative research is adequate when data saturation is  
34  
35 139 achieved. According to Hancock, Amankwaa, Revell, and Mueller[10] the qualitative research  
36  
37 140 “gold standard” for quality research is data saturation. The same authors explain that data  
38  
39 141 saturation or adequacy is reached when there are no new emerging ideas of information in the data,  
40  
41 142 the point in coding when no new codes occur in the data [10, 11].

42  
43 143 During the interviews, a favourable, non-threatening, and relaxed environment was created when  
44  
45 144 the researcher introduced himself to the participants, explained the interview process. The  
46  
47 145 interviews took place in the private rooms of selected health facilities. With the permission of the  
48  
49 146 participants, the assistant researcher audio-recorded the interviews and took written notes during  
50  
51 147 the interview in order to capture the original accounts of the participants’ responses and to verify  
52  
53 148 their interpretations by referring back to the original responses.

54  
55 149 The researcher listened attentively to research participants as they responded to the interview  
56  
57 150 questions. During the in-depth interviews, one participant expressed reservation about the use of



1  
2  
3  
4 151 the audiotapes, even after the researcher had assured confidentiality of the collected data for the  
5 152 study. The researcher respected her wish by switching off the audiotape for her interview.  
6  
7 153 In this study, on the spot member checking was performed during the interviews by repeating what  
8  
9 154 the participant said and what was documented in the field notes to the participants and confirming  
10  
11 155 that is what they wanted to say. Through member checking, the feedback was given to the  
12  
13 156 participants. The researcher also obtained feedback regarding the participants' response to the  
14  
15 157 interpretation of the data from them as individuals. The researcher spent considerable time( four  
16  
17 158 weeks) interacting with the participants during in-depth interviews in order to develop a rich  
18  
19 159 understanding of their perceptions of facility-based and home delivery service until data saturation.  
20  
21 160 The time spent during data collection was sufficient to establish rapport with the participants. The  
22  
23 161 researcher conducted the interviews in Amharic and lasted for about 30-50 minutes.  
24  
25 162

### 24 163 **Patient and Public Involvement**

25  
26 164 Patients were not involved in this study. Including Patient and Public Involvement (PPI),  
27  
28 165 statements align closely with *BMJ Open*'s values of transparency and inclusiveness. We hope that  
29  
30 166 including PPI statements in all articles is the first step of many for *BMJ Open* in encouraging  
31  
32 167 patient involvement.

### 33 168 **Data Analysis**

34  
35 169 Descriptive statistics were used to summarize socio-demographic characteristics of participants.  
36  
37 170 Data were analyzed concurrently with data collection. All transcribed data were read and  
38  
39 171 categorized into meaningful units that were subsequently coded manually by the principal  
40  
41 172 researcher. The analysis involved the use of both a priori codes (from the question guide) and  
42  
43 173 emergent inductive codes. Thematic analysis was done for the study. The researcher used Techs'  
44  
45 174 eight steps of qualitative data analysis method [12]. To ensure dependability in the study, the  
46  
47 175 researcher liaised with the two senior research supervisors regularly by email, personal contact, and  
48  
49 176 phone calls to track any changes carried out in the protocol and procedures, including reviewing  
50  
51 177 themes, defining and naming themes identified. Moreover, verbatim quotes were designated and  
52  
53 178 used to elucidate study findings.  
54  
55 179

## 181 **Ethics approval and consent to participate**

182 Ethical clearance was obtained from the Research Ethics Committee of the Department of Health  
183 Studies, University of South Africa. Permission to conduct the study was granted by Addis  
184 Ababa City Government Health Bureau. The authors obtained informed written consent from all  
185 participants to conduct the interviews. The voluntary nature of participation in this study was  
186 underlined. Confidentiality was assured about the identity and other personal information of all  
187 interviewees. The data collected were stored electronically as audio recordings to use as a form of  
188 backup and the transcriptions and notes were stored as MS word files. The MS word files were  
189 password-protected to ensure confidentiality.

## 191 **Research Findings**

### 192 **Characteristics of study participants**

193 A total of 20 participants involved in the in-depth interviews. The mean age of the total sample was  
194 28.96 ( $\pm$ SD = 4.19) years. Educational characteristics of the participants show that the majority (14  
195 out of twenty) was found to have no formal education and two-thirds of them were found to have  
196 one to three children. All of them delivered their last child at home during this study.

### 197 **Themes:**

198 From the analysis of in-depth interview data, 4 (four) themes emerged. These themes were  
199 identified as the rich and detailed account of the perspectives of facility-based and home delivery  
200 among attendees of FANC in Addis Ababa, Ethiopia.

#### 201 **The theme I: Perceived benefits of home delivery**

202 The first theme that emerged from data analysis was the perceived benefits of home delivery.  
203 Within the theme, 3 (three) categories support, familiarity, and warmth of the home setting and  
204 affordability of home delivery emerged. The sub-categories were as shown in table 2

207 **Table 2: Theme I: Perceived benefits of home delivery**

Theme	Categories	Sub-categories
Perceived benefits of home delivery	Support available during home delivery	Partner, family and neighbors' supportive presence at birth
	Familiarity and warmth of the home setting	Familiar, comfortable and convenient home setting
	Affordability of home delivery	The cost of health facility-based delivery services too high

208

209

210

211 **Partner, family and neighbours' supportive presence at birth**

212 The findings revealed that the benefits of home delivery (as perceived by the participants) were one  
 213 of the reasons women decided to deliver their babies at home and not at the health facilities. Some  
 214 of the participants indicated that the presence of partners, family members, friends, and neighbours  
 215 offer the required support and assistance during delivery at home. Sample responses included;

216 "I delivered at home without any problems and was assisted by my mother" (Participant  
 217 08).

218  
 219 When I was in labor, my family and TBA from neighbors were with me. The presence of  
 220 family and TBA was to provide me physical, social, and emotional support during  
 221 childbirth (Participant 16).

222  
 223 "When labor started me at night I was alone because my husband was on fieldwork. So,  
 224 there was nobody else close to me. I then shouted to call my neighbors but I already  
 225 delivered before they came" (Participant 01).

226 Elder women influence the decision- making power regarding delivery place in Ethiopia. However,  
 227 decision-making processes are dominated by men and the male household head is regularly  
 228 accountable for making the final decision. Other participants perceived home delivery safe  
 229 because of the confidence they have in the experienced members of the community such as  
 230 mothers, grandmothers, and neighbours who assist during delivery. Furthermore, the availability of

1  
2  
3 231 traditional birth attendants (TBAs) in the community might confirm a woman's decision to give  
4  
5 232 birth at home.

6  
7  
8 233 "My grandmother asked me to wait a little longer at home. She told me to wait and I gave  
9 234 birth spontaneously. We have confidence in her (TBAs)" (Participant 04).

10  
11 235 As the labor progressed, I asked them to take me to a facility. But my husband said no  
12 236 because he wanted me to deliver at home (Participant 18).

13 237  
14  
15 238 A study suggests that birth companionship especially continual support in labor and delivery can  
16 239 advance women's childbirth experience and birth outcomes[13]. The issue of husband/partner  
17 240 companionship during labour is regarded with concern by the study participants, who opted for  
18 241 home delivery. The findings of the study found that most women wanted to be accompanied by  
19 242 their partner to the facility for childbirth and most of them wanted to have a companion stay with  
20 243 them during labour and after delivery. Women's reasons for desiring a companion were mostly  
21 244 related to having someone around to help them meet their physical needs; more so than for  
22 245 emotional support. The results, nevertheless, suggest that women are less likely to be allowed  
23 246 continuous support at delivery if the companion was a male partner. These findings suggest that we  
24 247 need to find better ways of changing social norms about the role of men during labor and delivery  
25 248 and encouraging the participation of male partners in maternal and child healthcare while  
26 249 prioritizing women's preferences. Sample responses included;

27  
28  
29 250 "I am scared of delivering at a health facility alone because family members (especially  
30 251 my husband) aren't permitted to attend a woman in the labor room. I won't have such  
31 252 problems when I deliver at home." (Participant 05).

32 253 "Men are not allowed to accompany their wives to the labor ward for the reasons I don't  
33 254 know. What is wrong if he is allowed to stay with his wife during childbirth?" (Participant  
34 255 03)

35 256 "Yet, men aren't permitted to attend a woman in the labour room and only one female  
36 257 relative is sometimes allowed to be with a woman in labour ward" (Participant 02).

37 258  
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39 260  
40 261  
41 262

1  
2  
3 263 **Familiar, comfortable and convenient home setting**

4 264  
5  
6 265 The findings revealed that some of the participants identified familiarity with home setting and  
7  
8 266 warmth of the home setting as another benefit of home delivery, in that at home one can rest  
9  
10 267 comfortably in their own bed. This finding was apparent in the following sample responses;

11 268 “At home, you can rest in *your* bed after delivery, and your family and friends feed you  
12  
13 269 porridge “(Participant 05).

14 270  
15 271 “I would have lost the comfortable house where my close families, relatives, and  
16  
17 272 neighbors nearby me, had I gone hospital for delivery” (Participant 07).

18 273  
19 274 "I never find a place like my home. It is my pleasure to deliver my baby on  
20  
21 275 my own bed.... (Participant 13).

22 276  
23 277 One participant mentioned the immediate celebration of the birth of a child by women singing  
24  
25 278 traditional songs as one of the benefits of home delivery. In addition, she mentioned the caring and  
26  
27 279 feeding of the mother by the neighbours. This is what she said ‘Following childbirth, neighboring  
28  
29 280 women will make some porridge and will serve the woman. They (women) will celebrate this  
30  
31 281 special occasion by singing traditional songs and eating porridge. If childbirth takes place in the  
32  
33 282 facility, you miss this wonderful event and the warmth of your home. I think this ceremony is  
34  
35 283 unique to Ethiopian women (Participant 01).

36 284  
37 285 **Cost of facility-based delivery too high**

38 286 The high cost of delivering at a health facility was mentioned as one of the reasons women decide  
39  
40 287 to deliver their babies at home. Although maternal service is free in Ethiopia, indirect costs linked  
41  
42 288 with childbearing were too high for numerous women who regarded themselves as too poor to  
43  
44 289 deliver in a health facility. For instance, economically constrained women might have concerns  
45  
46 290 obtaining funds to pay for gloves, medications, and lab tests during facility-based delivery care at  
47  
48 291 the time-of-service, predominantly those families who depend on intermittent labor. Some  
49  
50 292 women regarded costs outside of the direct cost for childbirth as “unseen” and difficult to  
51  
52 293 prepare for. The sample response

294 “You know you need someone who arranges taxi and pays money for it to go to health  
295 facility” (Participant 6).

296 “When you go there (HF) for childbirth, you are required to buy gloves, medications and  
297 lab tests, etc. Had there is a strong national health insurance system in place, you could  
298 have used it to cover your expenses” (Participant 10).

## 299 **Theme II: Knowledge Deficit**

300 The second theme that emerged from data analysis was the knowledge deficit. Within the theme,  
301 two categories of inadequate information received from the health professionals and beliefs about  
302 home and facility-based delivery emerged. The sub-categories were as shown in table 3.

303 **Table 3 Theme II: Knowledge deficit**

Theme	Categories	Sub-categories
Knowledge deficit	Inadequate information received from health professionals	Lack of knowledge about facility-based delivery
	Perceptions of home and facility-based delivery	Home delivery is for normal delivery Unnecessary procedures carried out at health facilities

### 304 **Lack of knowledge about facility-based delivery**

305 According to the study findings, a lack of knowledge about facility-based delivery influenced the  
306 women’s decision to give birth at home. Some of the participants stated that they did not know  
307 about the facility-based delivery service at public health facilities. Sample responses in that regard  
308 included:  
309

310  
311 “We must be told about the significance of health facility delivery by the service  
312 providers at the ANC clinic. Nobody raised the issue to us. So, we decided to give birth at  
313 home. There is a TBA in our community and she was called and assisted me”  
314 (Participant 02).

315  
316 “The nurse I was attended to by was busy and she only checked my abdomen and gave me  
317 an appointment to return. Otherwise, I don’t recall anything I was told about facility  
318 delivery” (Participant 05).

1  
2  
3 319 “I didn’t receive any information about delivering in a facility. She (the midwife) only  
4 320 checked me and told me to come on the next appointment.... I guess it is because they are  
5 321 at times busy or they might not be well prepared to do so (Participant 01).  
6 322

### 7 323 **The perception that home delivery is for normal delivery**

8  
9  
10  
11 324 The study findings revealed some participants’ perceptions of home delivery that made them  
12  
13 325 decide to give birth at home, even though they attended FANC. The finding was evident in the  
14  
15 326 following sample responses;

16 327  
17  
18 328 “I delivered my last child at home because it was a normal delivery, however, I would  
19 329 have gone to the hospital had any complication occurred “ (Participant 08).

20  
21 330 “If I encounter difficulty to deliver in my home I can go there at last while labor is  
22 331 prolonged and painful. Otherwise, why should I visit a health facility while I am healthy?  
23 332 “ (Participant 15).

24  
25 333 “I delivered 5 children at home being assisted by TBA, my family, and relatives. You  
26 334 will continue to deliver at home if you deliver the first child at home” (Participant 02)

### 27 335 **The perception that unnecessary procedures are carried out at health facilities**

28  
29  
30 336 According to the study findings, some of the women had a perception that unnecessary procedures  
31 337 are carried out at health facilities during delivery. Sample responses in that regard included:

32  
33  
34 338 “Lots of women are cut and stitched for the reasons I don’t know. For example, if one goes  
35 339 to a private hospital, almost every one of them delivers by the operation.” (Participant 01)

36  
37 340 “Fear of Caesarean section delivery discourages us [women] to come for health facility-  
38 341 based delivery” (Participant 08)

### 39 342 **Theme III: Poor Access to Health Facilities**

40  
41  
42 343 The third theme that emerged from data analysis was poor access to health facilities. Within the  
43 344 theme, two categories of lack of transport and financial constraints emerged. The sub-categories  
44 345 were as shown in table 4.  
45  
46  
47  
48  
49 346  
50  
51 347

348 **Table 4 Theme III: Poor access to health facilities**

Theme	Categories	Sub-categories
349 350 351 352 353 354 355 356 357 358 359	Lack of transport	Inaccessible and inadequate ambulance service Lack of prior arrangement for transport Distance and poor roads
	Financial constraints	Lack of emergency and complications readiness planning

### 349 **Inaccessible and inadequate ambulance service**

350 According to the study findings, the participants ended up giving birth at home because of poor  
351 access to health facilities. The difficulty of getting transport, in particular, ambulance services to  
352 the health facility, especially at night resulted in women delivering their babies at home. Sample  
353 responses included;

354 “In the night, it is difficult to get the ambulance as fast as you need it.” (Participant 01)

355 “There is limited access to ambulance service mainly in the night.”(Participant 06)

356 “Sometimes, the driver doesn’t respond to the telephone call and, the woman will deliver  
357 at home” (Participant 03)

### 358 **Lack of prior arrangement for transport**

359 Planning for childbirth includes decisions about the location of delivery, transportation planning,  
360 and money to pay for childbirth. The findings of the study revealed that study participants did not  
361 arrange for transportation to a health facility. This was evident in the sample responses;

362 “We didn’t arrange transportation before” (Participant 19).

363 “I delivered this baby at home because labor started in the night while it was heavily  
364 raining, and there was no time to arrange transport” (Participant 02).

### 365 **Distance and poor roads**

366 According to the study findings, the long distance to the health care facilities, as well as the bad  
367 state of the roads diminished access to health care facilities. One participant explained “My home



1  
2  
3 375 is a bit far from the main road and a taxi can't come in because of the bad road (cobblestone  
4 376 was under construction); (Participant 04).

7 377 **Lack of emergency and complications readiness planning**

8 378  
9 379 The study findings identified the lack of funds in an emergency as a barrier to the utilization of  
10 380 facility-based delivery

13 381  
14 382 "You know you need someone who arranges taxis and pays money for it to go to health  
15 383 facility (Participant 03).

17 384  
18 385 " There is no strong national health insurance system in place in our country to cover your  
19 386 expenses during childbirth..... The government should do more on this ” (Participant 14).

20 387  
21 388 Two mothers reported that they delivered at home because labor was unpredictably too fast, and  
22 389 did not give their families a chance to reach the health facility for delivery. Cchildbirth after  
23 390 unusually rapid labour, culminating in the rapid and spontaneous expulsion of the infant is called  
24 391 precipitate delivery. In precipitate delivery, the first and the second stage of labour are combined,  
25 392 and the duration of labour is under two to three hours[14]. The sample responses included;

26 393 "Suddenly, I went into labor pain after midnight (at 1 pm) and delivered normally my  
27 394 last child at about 2 pm. There is a well-known TBA in our community and she came and  
28 395 assisted me” (Participant 08).

29 396  
30 397 "I delivered this baby at home because labor started in the night while it was heavily  
31 398 raining, and the baby was born *soon*” (Participant 06).

32 399 These findings are similar to the findings, which were reported in previous studies by Alabbi,  
33 400 O'Mahony, Wright, and Ntsaba [15] and Yakubu, Benyas, Emil, Amekah, Adanu, and Moyer  
34 401 [16].

35 402 **Theme IV: Inadequate (demand side) Resources**

36 403 The fourth theme that emerged from data analysis was inadequate resources. Within the theme, two  
37 404 categories inadequate skilled health professionals and inadequate equipment emerged. The sub-  
38 405 categories were as shown in table 5.

39 406

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3 4074  
5  
6 4087  
8  
9 **Table 5 Theme IV: Inadequate resources**

Theme	Categories	Sub-categories
Inadequate resources	Inadequately skilled health care professionals	Perceived incompetence among health care professionals Negative attitudes of health care professionals and poor service at health facilities
	Inadequate equipment	Inadequate beds/ supplies

10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21 41022 **Perceived incompetence among health care professionals**

23 411

24 412

25 413 From the participants' perspective, the inadequacy of both skilled health care professionals and  
26 414 equipment are some of the reasons some women do not use health care facility-based delivery  
27 415 services. The findings revealed the perceived incompetence of health care professionals, lack of  
28 416 knowledge, skill, and appropriate attitudes to care for pregnant women during pregnancy and  
29 417 childbirth as reasons women do not go for health facility-based delivery. The participants  
30 418 expressed confidence in traditional birth attendants. Sample responses include

35 419 “I was really upset with how they took care of me when I delivered my first child in the  
36 420 health center. She [the nurse] who attended to me didn't even know how to manage the  
37 421 removal of the placenta, and the baby. It seemed that she didn't get proper training or she  
38 422 lacked some experience” (Participant 01).

41 423 “They [Providers] lack experiences to assist women in labor and childbirth...” (Participant  
42 424 14).

44 425 “We have confidence in traditional birth attendants” (Participant 04).

46 426

47 **Negative attitudes of health professionals and poor service at health facilities**

48 427 The findings of the study revealed that women did not choose facility-based delivery because of the  
49 428 negative attitudes of health care professionals and poor service at health facilities. Many  
50 429

1  
2  
3 430 participants mentioned physical and verbal abuse, lack of respect, and lack of sympathy at the  
4  
5 431 hands of midwives and nurses. These findings were evident in the following sample responses;

6  
7 432 “That some of the midwives, they even beat you, and scream on you, they don’t have  
8 433 tolerance for you. They are verbally abusive, impolite, and lack sympathy” (Participant  
9 434 01).

10  
11 435  
12  
13 436 “There is some negligent staff. We go there to get their help, but they talk and chat  
14 437 about their private issues. So, it is not advisable to go there” (Participant 03)

15 438  
16  
17 439 “While I delivered my second baby at a health center I was in pain and shouting for help  
18 440 to the midwife who was chatting with her friends. She didn’t show any concern to me  
19 441 and one physician also came and yelled at me. I suggest that these people have to in the  
20 442 first place respect their clients and also know their professional duties and responsibilities”  
21 443 (Participant 06).

22  
23  
24 444

#### 25 445 **Inadequate equipment (beds, BP apparatus, bedsheets, and thermometers)**

26 446  
27  
28 447 The participants stated that the equipment required for providing quality care at health care  
29 448 facilities was inadequate. According to the findings, there was a shortage of beds, bedsheets, blood  
30 449 pressure monitoring equipment, as well as thermometers, resulting in women in early labor sent  
31 450 home. Some of the women indicated that the health professionals sent them back home because  
32 451 there were no beds, hence the home delivery even though they had planned to have facility-based  
33 452 delivery. Sample responses included; “For me, I don’t think delivering at home is safe. I wanted to  
34 453 give birth at health facility but they returned me home because the contractions weren’t strong and  
35 454 there weren’t sufficient admission beds in the health center” (Participant 04).

36  
37 455 “I went to deliver my firstborn child and they sent me home and I delivered that  
38 456 evening at home. So, if there were enough delivery beds I wouldn’t deliver at home”  
39 457 (Participant 15).

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43 458 “Due to the shortage of beds, some women are referred from one facility to another. At  
44 459 times, the health facilities even don’t have gloves, bed sheets, drugs, equipment like  
45 460 thermometer and BP apparatus” (Participant 08).

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49 461 “Let me tell you my own story. I was referred to the hospital due to heavy vaginal

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3 462 bleeding when delivered my second baby. There was no BP apparatus in the hospital  
4 463 except one in the emergency room. There is staff, hospitals, and patients but no BP  
5 464 apparatus even in that big hospital” (Participant 02).  
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## 8 465 **Discussion**

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11 466 This study explored why some women who attended focused antenatal care (FANC) fail to deliver  
12 467 in health facilities in slum residents of Addis Ababa, Ethiopia. A multi-level life-course framework  
13 468 of facility-based delivery in low- and middle-income countries (LMICs) developed by Bohren, et  
14 469 al[17] was used to frame the current study and link the findings of the study to the body of  
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16 470 knowledge.  
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### 20 471 **Perceived benefits of home delivery**

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23 472 According to the findings, the women who took part in this study chose home-based delivery  
24 473 because of the supportive presence of family and neighbours during childbirth as well as the  
25 474 comfort and convenience of the home environment. These findings were consistent with findings  
26 475 of previous studies among urban poor in Mumbai-India and Nigeria where over half delivered  
27 476 outside hospital facilities and 81.8% of those deliveries were not attended by a skilled health  
28 477 provider[18, 19]. Adinew and Assefa [20] reported similar findings that Ethiopian women who  
29 478 took part in their study chose home-based and traditional birth attendants to facility-based delivery  
30 479 and health professionals, respectively. The same authors explain that the choice was based on the  
31 480 familiarity, comfort, and convenience of the home environment. In addition, the home environment  
32 481 does not limit the involvement of traditional birth attendants who are trusted by the community  
33 482 because of their status and the perceived quality of care (skill and warmth) they render during  
34 483 childbirth [21, 22]. According to the study findings, women indicated that the presence of family  
35 484 and traditional birth attendants provide physical, social, and emotional support during childbirth.  
36 485 According to Bohren et al[17], Magoma et al[22], and Moyer, Adongo, Hodgson, Engmann, and  
37 486 Devries[23] the availability of traditional birth attendants in the community might confirm a  
38 487 woman’s decision to give birth at home.  
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51 488 The findings also revealed that it is easier to deliver at home where women are able to use their  
52 489 own belongings and receive support from their neighbours. Gebrehiwot et al [21], Magoma et al  
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4 490 [22] and Titaley, Hunter, Dibley and Heywood [24] reported similar findings. Another important  
5 491 finding was that traditional practices influenced some of the women's decision to deliver at home  
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7 492 and not at a health facility, evidenced in the present study. This finding is consistent with the  
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9 493 results of previous studies [21, 22, 25]. A parturient woman may not be in control of the decision to  
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11 494 seek facility-based delivery, instead of relying on decisions made by elder women, husbands, other  
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13 495 family members, and neighbors. [17, 21, 26]. Elder women hold the greatest influence and  
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15 496 decision- making power regarding delivery location across Asia and sub-Saharan Africa, including  
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17 497 Ethiopia. Decision-making processes are dominated by men and the male household head is  
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19 498 regularly accountable for making the final decision [17, 21-23].

20 499 Skilled attendants during labour, delivery, and in the early postpartum period, can prevent up to  
21  
22 500 75% or more of maternal death. Yet, in many developing countries, a few mothers make at least  
23  
24 501 one antenatal visit and even less receive delivery care from skilled professionals[27]. In Ethiopia,  
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26 502 the majority of childbirth takes place at home by unskilled persons. Home delivery assisted mostly  
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28 503 by relatives or unskilled TBAs is as high as 74% in Ethiopia[6]. Hence, the Community-based  
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30 504 Skilled Birth Attendant (CSBA) program should be introduced to increase accessibility to skilled  
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32 505 delivery at home.

33 506 Affordability of home delivery was mentioned as one of the reasons some of the women who  
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35 507 participated in the study preferred home-based care delivery. Yaya, Bishwajit, Uthman, and  
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37 508 Amouzou [28] conducted a survey in Ethiopia and Nigeria to examine country-level variations of  
38  
39 509 the self-reported causes of not choosing to deliver at a health facility. The results of the same study  
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41 510 identified cost as one of the barriers reported for not attending health facility delivery in both  
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43 511 countries. Oyerinde et al[29] , and Ghazi, Moudi, and Vedadhir[26] reported similar findings in  
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45 512 Sierra Leone, and Iran, respectively. There is no need to arrange and pay for transport during a  
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47 513 home birth.

48 514 The high cost of delivering at a health facility was mentioned as one of the reasons women decide  
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50 515 to deliver their babies at home. This finding is consistent with the Bohren et al[17] Multiple-level  
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52 516 life-course framework of facility-based delivery in low- and middle-income countries (LMICs)  
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54 517 according to which the cost of childbirth may become a barrier to facility-based delivery.

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3 518 According to Bohren economically constrained women might have concerns obtaining funds to  
4 519 pay for facility-based delivery care. The same authors indicate that some women regarded costs  
5 520 outside of the direct cost for childbirth as “unseen” and difficult to prepare for [17, 22, 30]  
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### 9 521 **Knowledge Deficit**

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12 522 The findings of the study revealed that women’s lack of knowledge about facility-based delivery  
13 523 influenced their decision to give birth at home. The findings of the study are consistent with some  
14 524 of the previous studies that found that knowledge deficit regarding the benefits of health facility-  
15 525 based childbirth made women choose home delivery. Various researchers are of the opinion that  
16 526 ANC workers might not be effectively instructing women on the significance of facility-based  
17 527 delivery service possibly because of heavy workload and constrained time due to deliberate  
18 528 complex matters with their clients[17, 22, 31] . The findings of the study also revealed a  
19 529 perception among some participants of the study that home delivery is for women who had a  
20 530 history of normal delivery. The study findings are consistent with the research done by Øxnevad  
21 531 [32] on perceptions and practices related to home-based delivery and a qualitative study by  
22 532 Bedford, Gandhi, Admassu, and Girth[33] on the location of childbirth in rural Ethiopia.  
23 533 According to the findings of the same studies, the birthing process was considered a normal event,  
24 534 and women considered home delivery first and considered facility-based delivery only if  
25 535 complications arose.  
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37 536 The results of the survey that was conducted by Yaya et al [34], showed that one in four women in  
38 537 Ethiopia reported that it was not necessary to attend health facility-based delivery considering that  
39 538 delivery is a natural phenomenon and not an ailment requiring health facility services. Kebede et al  
40 539 [9] conducted a quantitative study on factors associated with institutional delivery service in  
41 540 Ethiopia and found that women who faced problems during pregnancy were 2.8 times more likely  
42 541 to utilize health care facility-based delivery than those who did not face problems during pregnancy  
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49 542 This finding is consistent with the Bohren et al [17] Multiple-level life-course framework of  
50 543 facility-based delivery in low- and middle-income countries (LMICs) according to which the  
51 544 previous birth experiences may affect the women’s choice of the location of delivery of the baby.  
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3 545 For a woman who delivered her first child at home without difficulties, using a health facility-  
4 based delivery for subsequent deliveries may be regarded as unnecessary [17, 27, 35] point out  
5 546 that some women may consider that ANC attendance will reduce the likelihood of a difficult  
6 547 delivery and that ANC may be viewed as a preventative method, guaranteeing a normal  
7 548 pregnancy and home delivery. This may explain why in some circumstances ANC coverage is  
8 549 almost universal while health facility-based delivery rates stay low [17, 22]  
9 550

10 551 According to the study findings, the perception of some of the women who took part in the study  
11 552 was that unnecessary procedures are carried out at health facilities. The findings are consistent with  
12 553 some of the studies that identified fear of cutting (caesarean section, episiotomy) during delivery as  
13 554 one of the factors that facilitated home-based delivery [17, 22, 26]. The multiple-level life-course  
14 555 framework of facility-based delivery in low- and middle-income countries (LMICs) suggests that  
15 556 medicalization of childbirth may be one of the reasons women prefer home to facility-based  
16 557 delivery. According to the model, women in low- and middle-income countries may fear various  
17 558 undesirable interventions and procedures such as episiotomies and caesarean sections and may  
18 559 prefer to deliver at home. This fear is usually based on the perception that birthing is a “normal”  
19 560 process which is a woman’s “natural rite of passage” with no basis for delivering at a health  
20 561 facility[17, 21, 22].  
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### 34 562 **Poor access to health facilities**

35 563 According to the findings of the study, poor access to health facilities played an important role in  
36 564 influencing women’s location of delivery (home-based delivery in this study). The findings  
37 565 indicate that the women who took part in the study failed to reach the health care facilities because  
38 566 of the difficulty of getting transport to the health facility at night, long distance to travel to the  
39 567 health facilities, poor conditions of the roads to health facilities and financial constraints. Similar  
40 568 findings were reported in a variety of previous studies [21, 34, 36]. A noteworthy finding is that  
41 569 women who attended FANC did not make plans for emergency and complications readiness plan,  
42 570 as it is expected in line with WHO [5]. The WHO recommends that all pregnant women develop a  
43 571 written plan for dealing with birth and any unexpected adverse events such as complications or  
44 572 emergencies that may occur during pregnancy, childbirth, or the immediate postnatal period [37].  
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3 573 Birth preparedness is the process of planning for a normal birth while complications readiness  
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5 574 refers to anticipating the actions needed in case of an emergency. Emergency planning is the  
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7 575 process of identifying and agreeing all the actions that need to take place quickly in the event of an  
8  
9 576 emergency, and that the details are understood by everyone involved, and the necessary  
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11 577 arrangements are made. The plans should be discussed with the skilled attendant at every FANC  
12  
13 578 assessment and one month before the expected date of birth [34, 37, 38].  
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### 15 579 **Inadequate (demand-side) Resources**

16  
17 580 The findings of the study revealed that women did not choose facility-based delivery because of the  
18  
19 581 perceived incompetence and negative attitudes of health professionals, as well as poor service at  
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21 582 health facilities. Similar findings were reported in previous studies. According to Adinew and  
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23 583 Assefa [20], women who took part in their study chose home-based and traditional birth attendants  
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25 584 to facility-based delivery and health professional respectively because of the skill and warmth  
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27 585 demonstrated by the traditional birth attendants. A number of studies found that women were  
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29 586 mistreated during childbirth in health facilities, hence the decision to give birth at home [20, 34, 39,  
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31 587 40]. The same authors reported similar findings of disrespectful treatment, unskilled care, poor  
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33 588 health provider-client interaction as reasons women preferred to give birth at home. Bohren et al  
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35 589 [17] conducted a systemic review with the aim of synthesizing qualitative evidence related to the  
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37 590 facilitators and barriers to delivering at health facilities in low-and middle-income countries.  
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39 591 Thirty-four studies from 17 countries were included in the review, and in the majority of studies  
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41 592 reports of disrespectful and abusive obstetric care were found. The multiple-level life-course  
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43 593 framework of facility-based delivery in low- and middle-income countries (LMICs) suggests that  
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45 594 previous birth experiences may be one of the reasons women prefer home to facility-based  
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47 595 delivery. Bohren et al [17] state that a number of women decide their level of risk for difficult  
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49 596 deliveries based on their previous experience of delivery practices and birth results. For example, a  
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51 597 woman might choose to give birth at a health facility if she had previous positive experience of  
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53 598 facility-based delivery[17, 27]. The findings of the study are inconsistent with WHO [5], which  
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55 599 supports the health system approach and strengthening regarding the availability of supplies and  
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57 600 positive pregnancy and delivery experience.  
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4 601 The most important policy and program implications of this study are the facts that stress has to be  
5 602 given to urban poor residents in a similar fashion to rural populations in the country. Individuals in  
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7 603 slums might have physical access as presented in the present study. Nonetheless, a number of  
8  
9 604 factors, including lack of money and awareness about the benefits of facility childbirth might be  
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11 605 considered as barriers among others. Increasing health facility births among the slum dwellers can  
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13 606 be enhanced through interventions tailored at increased awareness, starting ANC in early stages of  
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15 607 pregnancy, and attending at least 4 ANC visits[2]. Responsiveness to the health of urban poor  
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17 608 women could lead to augmented access to a facility delivery consequently improving the health  
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19 609 status of the entire population. For instance, guaranteeing appropriate and timely referrals to a  
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21 610 higher-level health facility for emergency care, arranging for ambulance service, and care during  
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23 611 transport may motivate women to deliver in a facility. Decreasing referring to women to health  
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25 612 facilities of similar status in the district might also help prevent delay in seeking care. It might also  
26  
27 613 be useful to focus on rigorous outreach in vulnerable areas by community-based health  
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29 614 workers(Health extension workers in the context of Ethiopia), who may perhaps play a greater role  
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31 615 in assisting women to plan their deliveries and making sure that they get help in time. The  
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33 616 Community-based Skilled Birth Attendant (CSBA) program should also be introduced to increase  
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35 617 accessibility to skilled delivery at home in the country.

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37 618 Various studies conducted in different developing countries and in a different part of Ethiopia  
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39 619 revealed different determinants of place of birth. Some of these factors are similar to those found in  
40  
41 620 the current study while others were different. Most of the studies used the quantitative approach,  
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43 621 while others used qualitative and mixed-method research. The common factors in literature that  
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45 622 were the same as those found in the study include the perceived benefits of home delivery, lack of  
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47 623 access to the health facility, absence of previous pregnancy-related complications, women's lack of  
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49 624 knowledge of the importance of FANC, misconceptions regarding FANC and home delivery. In  
50  
51 625 Ethiopia, researchers have documented a variety of the reasons women are not accessing facility-  
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53 626 based delivery services. The findings of this qualitative study add the existing body of knowledge  
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55 627 on perspectives of attendees of FANC on home and facility-based delivery among slums of Addis  
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57 628 Ababa, Ethiopia.

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### 630 **Strengths and limitation of the study**

631 This study is one of the first studies in Ethiopia to explore access to facility-based delivery care in  
632 urban slum settings. It should also be clear that the emerged themes were substantiated by the local  
633 and global works. Hence, the findings are valuable to health organizations that need to improve  
634 health facility-based delivery services. However, our study has some limitations. The study was  
635 conducted in public health facilities of Addis Ababa, Ethiopia. Hence, more emphasis should be  
636 paid on the need for including other stakeholders in such analysis in the future. The findings of this  
637 study applied to a similar population in the study setting. Criticism related to qualitative research  
638 often refers to concerns of the small sample, data interpretation, and bias. In this study, however,  
639 the researcher was self-aware and cognizant of his immersion in the research process to allow the  
640 process to be as objective as possible. The researcher is of the view that the rich description of the  
641 sample, methods of data collection and the data analysis process reveal the translucent nature of the  
642 study. The researcher ensured that his beliefs, opinions, and experiences about the phenomenon  
643 under study did not affect data collection and data analysis through the use of bracketing. The  
644 researcher's gender (male nurse - midwife) and background did not in any way affect the data  
645 collection process and data analysis for the present study.

### 647 **Conclusion**

648 The findings of this qualitative study revealed that perceived benefits of home delivery, knowledge  
649 deficit about health facility-based delivery, poor access to health care facilities, and inadequate  
650 (demand side) resources were related to low uptake of the facility-based delivery services. The  
651 results of this qualitative study add the existing body of knowledge on perspectives of attendees of  
652 FANC on home and facility-based delivery. Use ANC visits to advise women about Birth  
653 preparedness and complication readiness, the use of facility deliveries and risks of home delivery to  
654 the mother and the new-born.

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662 them.

### 663 **Authors' contributions**

664 **Sendo, EG** conceived of the research topic, designed the methods and materials, involved in the  
665 data collection, conducted data analysis, drafted and finalized the manuscript. **ME, Chauke,** and  
666 **M Ganga-Limando** participated in designing the study, data analysis, interpretation, and  
667 presentation of results and were involved in the final revision of the manuscript. All the authors  
668 have read and approved the final manuscript.

### 669 **Competing interests**

670 The authors declare that they have no competing interests.

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675 **Data Availability Statement:** All data relevant to the study are included in the article or uploaded  
676 as supplementary information.

### 677 **Ethics approval and consent to participate**

678 Ethical clearance was obtained from the Research Ethics Committee of the Department of Health  
679 Studies, University of South Africa. Permission to conduct the study was granted by Addis  
680 Ababa City Government Health Bureau. The authors obtained informed written consent from all  
681 participants to conduct the interviews. The voluntary nature of participation in this study was  
682 underlined. Confidentiality was assured about the identity and other personal information of all  
683 interviewees.

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## ANNEXE 1: IN-DEPTH INTERVIEW SCHEDULE (ENGLISH VERSION)

### Participant Information and Informed Consent Form

Thank you for making time to take part in this interview. My name is *Endalew Gemechu Sendo* and I would like to talk to you about your reasons for attending FANC, which promotes skilled attendance at birth, but decided to deliver your baby at home and not at the health care facility.

Please remember that you are under no obligation to participate in this interview. You can withdraw from the study at this point or end the interview at any point during the interview without explanation or consequences. You do not have to answer any question that makes you uncomfortable. Should we come to any question that you do not want to answer, just let me know and we will go to the next question.

I promise to treat all information collected from this interview as highly confidential and it shall not be reported in a manner that identifies or links you with the results of the study. The interview should take about fifty (50) minutes. I will do the interview and take some notes; my research assistant will be recording this interview because I do not want to miss any of your comments. Because we are on tape, please make sure that you speak up so that we do not miss your important responses.

Do you have any questions regarding what I have just explained to you?

### Informed consent

I, the under signed, acknowledge that *Endalew Gemechu Sendo*, the researcher has explained the research study purpose and activities. I understand the nature of the study and the means by which my identity will be protected and that the information I give will be kept confidential. I have had the opportunity to ask questions and they were answered to my satisfaction. My signature on this form also indicates that I am 18 years old or older and that I give permission to voluntarily participate in this study. My signature here also grants permission for the interview to be recorded.

Name of participant \_\_\_\_\_

Signature of the participant \_\_\_\_\_

Date \_\_\_\_\_

## **In-depth Interview questions**

### Personal information

Please tell me about yourself (age, marital status, your children, highest level of education, your religion and your current employment)

### Questions about focused antenatal care (FANC): facility-based and home deliveries.

1. Would you please tell me your reasons for attending FANC (which promotes the use of skilled attendance at birth) but decided to deliver your baby at home and not at the health facility?

### Additional questions included

1. What prompted you to attend antenatal care?
2. How many times did you receive ANC during this pregnancy?
3. What were the benefits of attending antenatal care?
4. What information did you receive from the health care providers about preparing for giving birth at health facilities?
5. Why did you choose to deliver your current baby at home?
6. What are your views regarding the advantages of home delivery?
7. What is your opinion regarding delivering a baby in the health facility?
  - Would you recommend health facility delivery to your friends? Why not? What are the barriers? What are the benefits of going for institutional delivery?
8. What is your opinion about delivering a baby at home?
  - Would you recommend home delivery to your friends? Why? What are the benefits of delivering a baby at home?

**Thank you very much for taking part in this study.**



**ANNEXE 2: ማከይቅ (In-depth Interview Schedule) – Amharic Version**

በውይይቱ ላይ ለመሳተፍ ፍቃደኛ ስለሆኑ አመሰግናለሁ። በዛሬው እለት ውይይታችንን የምመራው እኔ እንዳለው ገመቹ ሰንዶ ነኝ። ውይይታችን የሚያተኩረው የጤና አገልግሎት በጤና ማእከል ወይንም በቤቱ ውስጥ ስለሚሰጥበት ሁኔታ ያላችሁን የግል አስተያየት ነው። በዚህ ጥናት ላይ የሚኖሮትን ተሳትፎ በማንኛውም ጊዜ ለእርስዎ ምችት የማይሰጥ ሆኖ ሲያገኙት ማቋረጥ ይችላሉ። እኔም የግል ሚስጢርዎን ለመጠበቅ ቃል እገባለሁ። ውይይቱ በግምት 50 ደቂቃ ይወስዳል። ምንም እንኳን ማስታወሻ ብይዝም ድምጽዎን ግን በመቅረጫ እቀርጻለሁ። ምክንያቱም የሚሰጡኝን የትኛውንም መረጃ ማጣት ስለማልፈልግ ነው።

ከላይ በተደረገው ገለጻ ላይ ጥያቄ አለዎት?

እኔ ከታች ፊርማዬ የሰፈረው የጥናቱ አይነት፣ ጥቅም፣ መብቶቼን መረዳቴን እና በፈቃደኝነት ለመሳተፍ እንዲሁም ሚስጢራዊነቱን በመገንዘብ እና ያለምንም አሉታዊ ውጤት ከጥናቱ መውጣት እንደምችል መረዳቴን እገልጻለሁ። ጥያቄዎችን ለመጠየቅ እድል ተሰጥቶኝ የነበረ ከመሆኑም ባሻገር በበቂ ሁኔታ ምላሽ ተሰጥቶኛል።

በዚህ ጥናት ላይ ለመሳተፍ ስምምነቴን እገልጻለሁ።

የተሳታፊ ስም: .....

የተሳታፊ ፊርማ: .....

ቀን: .....

**የመጠይቅ ጥያቄዎች (INTERVIEW QUESTIONS)**

**የግል መረጃ**

እባክዎ ስለ ራስዎ ያብራሩ(ዕድሜ፣ የጋብቻ ሁኔታ፣ ልጆች፣ የትምህርት ደረጃ፣ ሃይማኖት እና የቅጥር ሁኔታ)

**የቅድመ ወሊድ እንክብካቤ ጥያቄዎች(FANC): በጤና ማእከል ወይንም በቤት ውስጥ መውለድ**

1. የቅድመ ወሊድ ክትትል በጤና ማእከል ካደረጉ በኋላ ልጅዎን በቤት መውለድ ለምን ወሰኑ?

**ተጨማሪ ጥያቄዎች:**

- የቅድመ ወሊድ ክትትል ለማረጋገጥ ያነሳሳዎ ምንድነው?
- በመጨረሻው እርግዝናዎ ወቅት ሥንት ጊዜ የቅድመ ወሊድ የጤና ክትትል አደረጉ?
- የቅድመ ወሊድ የጤና ክትትል ጠቀሜታዎች ምንድን ናቸው?
- በቅድመ ወሊድ የጤና ክትትል ወቅት በጤና ማእከል እንዲወልዱ ከጤና ባለሙያዎች ያገኙት መረጃ ምን ነበር?
- ልጅዎን በቤት መውለድ ለምን መረጡ? ጥቅሙስ?
- በቤት መውለድ ጋር ተያይዞ ያለዎት አስተያየት ምንድነው?
- በጤና ማእከል ውስጥ ከመውለድ ጋር ተያይዞ ያለዎት አስተያየት ምንድነው?
  - o ሴቶች በጤና ማእከላት ልጅ እንዲወልዱ ያረታታሉ? ለምን?
  - o ሴቶች በጤና ማእከል ልጆቻቸውን እንዲገለገሉ የሚከለክል ባህል ነክ ልማድ አለ? ካለ ያብራሩት።

**ለተሳትፎዎ እጅግ አመሰግናለሁ**

## COREQ (COnsolidated criteria for REporting Qualitative research) Checklist

A checklist of items that should be included in reports of qualitative research. You must report the page number in your manuscript where you consider each of the items listed in this checklist. If you have not included this information, either revise your manuscript accordingly before submitting or note N/A.

Topic	Item No.	Guide Questions/Description	Reported on Page No.
<b>Domain 1: Research team and reflexivity</b>			
<i>Personal characteristics</i>			
Interviewer/facilitator	1	Which author/s conducted the interview or focus group?	
Credentials	2	What were the researcher's credentials? E.g. PhD, MD	
Occupation	3	What was their occupation at the time of the study?	
Gender	4	Was the researcher male or female?	
Experience and training	5	What experience or training did the researcher have?	
<i>Relationship with participants</i>			
Relationship established	6	Was a relationship established prior to study commencement?	
Participant knowledge of the interviewer	7	What did the participants know about the researcher? e.g. personal goals, reasons for doing the research	
Interviewer characteristics	8	What characteristics were reported about the interviewer/facilitator? e.g. Bias, assumptions, reasons and interests in the research topic	
<b>Domain 2: Study design</b>			
<i>Theoretical framework</i>			
Methodological orientation and Theory	9	What methodological orientation was stated to underpin the study? e.g. grounded theory, discourse analysis, ethnography, phenomenology, content analysis	
<i>Participant selection</i>			
Sampling	10	How were participants selected? e.g. purposive, convenience, consecutive, snowball	
Method of approach	11	How were participants approached? e.g. face-to-face, telephone, mail, email	
Sample size	12	How many participants were in the study?	
Non-participation	13	How many people refused to participate or dropped out? Reasons?	
<i>Setting</i>			
Setting of data collection	14	Where was the data collected? e.g. home, clinic, workplace	
Presence of non-participants	15	Was anyone else present besides the participants and researchers?	
Description of sample	16	What are the important characteristics of the sample? e.g. demographic data, date	
<i>Data collection</i>			
Interview guide	17	Were questions, prompts, guides provided by the authors? Was it pilot tested?	
Repeat interviews	18	Were repeat interviews carried out? If yes, how many?	
Audio/visual recording	19	Did the research use audio or visual recording to collect the data?	
Field notes	20	Were field notes made during and/or after the interview or focus group?	
Duration	21	What was the duration of the interviews or focus group?	
Data saturation	22	Was data saturation discussed?	
Transcripts returned	23	Were transcripts returned to participants for comment and/or	

Topic	Item No.	Guide Questions/Description	Reported on Page No.
		correction?	
<b>Domain 3: analysis and findings</b>			
<i>Data analysis</i>			
Number of data coders	24	How many data coders coded the data?	
Description of the coding tree	25	Did authors provide a description of the coding tree?	
Derivation of themes	26	Were themes identified in advance or derived from the data?	
Software	27	What software, if applicable, was used to manage the data?	
Participant checking	28	Did participants provide feedback on the findings?	
<i>Reporting</i>			
Quotations presented	29	Were participant quotations presented to illustrate the themes/findings? Was each quotation identified? e.g. participant number	
Data and findings consistent	30	Was there consistency between the data presented and the findings?	
Clarity of major themes	31	Were major themes clearly presented in the findings?	
Clarity of minor themes	32	Is there a description of diverse cases or discussion of minor themes?	

Developed from: Tong A, Sainsbury P, Craig J. Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. *International Journal for Quality in Health Care*. 2007. Volume 19, Number 6: pp. 349 – 357

**Once you have completed this checklist, please save a copy and upload it as part of your submission. DO NOT include this checklist as part of the main manuscript document. It must be uploaded as a separate file.**