

# **Maternal Health Services Utilization and Associated Factors in Bishoftu Town, central Ethiopia**

**By:-**

**Diriba Wogayehu (BSc)**

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**Jimma, Ethiopia.**

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**Diriba Wogayehu (BSc)**

**Advisors:**

- 1. Shimeles Ololo (MPH, Assistant Professor)**
- 2. Gebeyehu Tsega (BSc, MPH)**

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## Abstract

**Background:** Maternal mortality remains a major challenge to health systems worldwide. Some developing countries have made very limited or insufficient progress in achieving the Millennium Development Goal 5. Ethiopia has one of the highest maternal mortality ratios in the world. Utilization of maternal health care services such as antenatal care, institutional delivery and postnatal care services are key maternal health care services used to improve the health outcomes of women and children. However, the magnitude of utilization of maternal health care services and associated factors were not investigated in Bishoftu town.

**Objective:** To assess utilization of maternal health care services and associated factors in Bishoftu town, Oromia Region, central Ethiopia.

**Methods:** A cross-sectional study design was employed to assess utilization of maternal health care services and associated factors among 714 women who had given birth in the last one year prior to the survey in Bishoftu town. Sample size was calculated using single population proportion formula. A stratified multi-stage simple random sampling technique was employed to identify the study participants. A pre-tested interviewer administered questionnaire was used for data collection. Data was collected by trained female data collectors and a face- to-face interview technique was used to collect data. Statistical analysis was conducted using SPSS version 20.0 software. Statistical significance was considered at  $p < 0.05$  and the strength of statistical association was determined by adjusted odds ratio (AOR) with 95% Confidence intervals.

**Result:** A total of 707 women were interviewed making a response rate of 99%. More than 95% women had atleast one antenatal care visit during their last pregnancy. Place of residence, religion, marital status, planning for pregnancy, and presence of husband approval were the independent predictors of antenatal care utilization. The study also revealed that 85.3% of women had gave birth in health institutions. In the multivariate analysis, place of residence, education, income, birth order, planning for pregnancy and antenatal care utilization were the independent predictors of institutional delivery care utilization. About 71.4% of women utilized postnatal care after delivery. Antenatal care attendance, place of delivery and history of delivery by cesarean section were the independent predictors of postnatal care utilization.

**Conclusion:** This study indicated that the utilization of maternal health care services in Bishoftu town is very satisfactory. Place of residence, education, income, planning for pregnancy, religion, marital status; husband approval, birth order and history of delivery by cesarean section were the independent predictors of utilization of maternal healthcare services. In order to improve the utilization of maternal health care services; strategies should aim at improving educational level and economic status of women, efforts should be made to improve husbands or partners attitude, focus should be given for high birth order and semi-urban women.

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## **Lists of abbreviations and acronyms**

ANC\_\_ Antenatal Care

AOR\_\_ Adjusted Odds Ratio

COR\_\_ Crude Odds Ratio

CS\_\_ Caesarean section

CSA\_\_ Central Statistics Agency

EDHS \_\_Ethiopian Demographic and Health Survey

EMDHS\_\_Ethiopian Mini- Demographic Health Survey

HC\_\_ Health Center

HEPs\_\_ Health Extension Professionals

HEW\_\_ Health Extension Workers

HI\_\_ Health Institutions

IDC \_\_ Institutional Delivery Care

MDG\_\_ Millennium Development Goals

MHCS \_\_Maternal Health Care Services

MMR \_\_Maternal Mortality Ratio

MOH\_\_ Ministry of Health

NGO\_\_ Non- Governmental Organization

PNC\_\_ Post Natal Care

SAB \_\_Skilled Attendance at Birth

SSA\_\_ Sub- Saharan Africa

UHEP\_\_ Urban Health Extension Program

WHO\_\_ World Health Organization

# CHAPTER ONE: INTRODUCTION

## 1.1. Background

Maternal health refers to the health of women during pregnancy, childbirth and the postpartum period. Although motherhood is often a positive and fulfilling experience, for too many women it is associated with suffering, ill-health and even death. According to WHO maternal death is defined as “ the death of a woman while pregnant or within 42 days of termination of pregnancy,irrespective of the duration and site of the pregnancy,from any cause related to or aggravated by the pregnancy or its management, but not from accidental or incidental causes”(1,2).

Maternal mortality remains a major challenge to health systems worldwide. Globally, an estimated 289, 000 maternal deaths occurred in 2013. Sub-Saharan Africa (SSA) and Southern Asia accounted for 86% of the global burden in 2013. Improving maternal health has been on the global health agenda.The two targets for assessing MDG 5 are reducing maternal mortality ratio (MMR) by 75% between 1990 and 2015, and achieving universal access to reproductive health by 2015(3,4).

Most of the time pregnant women are dying from Pre-existing medical conditions that are exacerbated by pregnancy .Thus, quality maternal health care interventions before, during & after childbirth are required to save mothers life. Many health problems in pregnant women can be prevented, detected and treated during antenatal care (ANC) visits with trained health workers. WHO recommends a minimum of four antenatal care visits with the first visit within the first trimester for women with uncomplicated pregnancy. However, many women, particularly in SSA, tend to wait to start antenatal care until the second or third trimester (5–7).

With regard to institutional delivery care (IDC), skilled attendance at birth(SAB) and access to emergency obstetric care in health institutions are key interventions in reducing the risk of maternal death.WHO has defined a skilled attendant “as an accredited health professional-such

as a midwife, doctor or nurse- who has been educated and trained to proficiency in the skills needed to manage normal (uncomplicated) pregnancies, child birth and the immediate postnatal period, and in the identification, management and referral of complications in women and newborns”. The proportion of deliveries assisted by a skilled health provider is a good indicator to monitor progress toward achieving MDG 5(3,8).

Appropriate post natal care (PNC) in the first hours and days following childbirth prevents the great majority of maternal and child morbidity and mortality. World Health Organization stated that the postnatal period begins immediately after the birth of the baby and extends up to six weeks (42 days) after birth. Even though the principal objectives of PNC services are to support the mother and her family, prevent, early diagnose and treat complications of the mother and infant, this period is generally the most neglected in developing countries(9).

Ethiopia is one of the SSA countries that experience the highest maternal mortality ratios in the world with 676 maternal deaths for every 100,000 live births. But in a recent years with a better understanding of the complexity of social and cultural factors related with maternal health , initiatives such as an empowerment and improving the status of women by creating equal opportunity for education, elimination of discrimination against women and increasing their control over decisions in their household were get emphasized. In addition, HSDP-IV continues to emphasize on maternal and child health with focus on extending services to those who have not yet been reached and on improving the effectiveness of services (10–12).

## 1.2. Statement of the Problem

Some developing countries have made very limited or insufficient progress in achieving the Millennium Development Goal 5 (MDG5) of improving maternal health. A country-level estimates are shown that two countries; India at 17% and Nigeria at 14% accounted for one third of all global maternal deaths. Ethiopia is one of the ten countries that comprised 58% of the global maternal deaths reported in 2013 with 4 % (13,000) maternal deaths annually. The 2015 MDG target for the Maternal Mortality Ratio (MMR) is 218 while the 2011EDHS report was 676 MMR (4,7,10,11).

The evidences showed that high maternal mortality rates are associated with inadequate and poor-quality maternal health care utilization. Many women in SSA tend to wait to start antenatal care until the second or third trimester. In Rwanda 96 % of women reported at least one ANC visit, but only 24% reported four or more visits, whereas in Malawi, 95 % of women reported at least one ANC visit, less than 10 % reported making the first visit in the first trimester. Institutional delivery care assisted by skilled providers is the most important proven intervention in reducing maternal mortality. The proportion of skilled birth attendance in many richer countries is near universal coverage, but in many developing countries still the majority of births are delivered at home. In SSA ,Keniya(53%),Rwanda (47%) and Ghana (39%) of women gave birth at home whereas in North Africa, 27% of Egypt and 36% of Morocco women gave birt at home (7,13).

A large proportion of maternal and neonatal deaths occur during the 48 hours after delivery, and these first two days following delivery are critical for monitoring complications arising from the delivery. Postnatal care is important for the mother to provide with important information on how to care for herself and her child.However, large proportion of women continue to lack such care because this period is the most neglected in developing countries(8,9).

In Ethiopia also, a large proportion of women did not use modern maternal health care services. About 43 % of Ethiopian women did not receive any ANC for their last birth. Among those who used ANC, only 17% and 32% begin ANC in the first trimester and made

four or more ANC visits, respectively. Similarly, the proportion of births that occur at home remains high in Ethiopia, and skilled health professionals attend very few births (15%).

In urban areas, only 63% births take place at health institutions. Also the level of postnatal care coverage is extremely low in Ethiopia. Only 12% and (48.4% urban) women with a live birth received postnatal checkup within two days as recommended (14).

To increase the utilization of maternal health care services and achieve MDG5, the government took different strategies such as provision of free maternal health care services, expansion of health facilities, training of skilled health care providers, training and deployment of health extension professionals to increase women's awareness on maternal health care services and facilitate early referral services, through HSDP's. Although some overtime improvements, maternal health care services utilization in Ethiopia is still inadequate(12,14).

Similarly, the situation of maternal health care services utilization in Oromia National Regional State is still low even compared to the national level, Tigray and Addis Ababa regions. The proportion of mothers who received ANC from skilled provider, delivered at health institutions, delivered with assistance of skilled health professionals, and made postnatal checkup within two days was 34%, 14.7%, 14.4%, and 11.2%, respectively, for Oromia Region(14). In general, the utilization of maternal health care services and affecting factors were varied by geographic area and socioeconomic and cultural settings in the country which calls for investigation of area and culture specific determinants of maternal health care services utilization. There was no previous study conducted to assess utilization of maternal health care services and associated factors in Bishoftu town and it is this knowledge gap that leads us to initiate this study.

### **1.3. Significance of the study**

Assessing utilization of maternal health care services and associated factors in the study area is very important to inform where to focus the interventions that can be used to reduce maternal mortality and improve maternal health.

Hence, this study aims to assess utilization of maternal health care services and associated factors in Bishoftu town, Oromia Regional State, central Ethiopia. Moreover, the findings of this study will be useful to the community and decision makers at the town and regional level for planning, implementing and evaluating maternal health care services to reduce maternal mortality rate and achieve MDG5. Also, the results of this study may be used as a baseline data for further studies around this area.

## **CHAPTER TWO: LITERATURE REVIEW**

### **2.1. Utilization of maternal health care services**

Achieving good maternal health requires quality reproductive health services and a series of well-timed interventions to ensure women's safe passage to motherhood. Evidences show that, the use of maternal health care services such as ANC, skilled delivery attendance and PNC are recognized as key maternal health care services to improve health outcomes for women and children. Variation in utilization of maternal health care in developing countries usually framed by individual related factors, contextual issues relating to funding or income and organization of health care or social and cultural issues (15,16).

#### **2.1.1. Utilization of Antenatal care service**

Many health problems in pregnant women can be prevented, detected and treated during ANC visits with trained health workers. ANC is an important entry point for subsequent use of delivery and PNC services. WHO recommends a minimum of four ANC visits with the first visit within the first trimester for women with uncomplicated pregnancy (15). A different literature indicated that in developing countries, the utilization of ANC service is still low and only half of pregnant women received the recommended minimum of four antenatal care visits. The study conducted in Gujarat, India 2008, indicated that; majority (92%) of women received at least one ANC during pregnancy, 81.5% received three or more ANC, whereas 7.7% did not receive any ANC visit. A study in Nepal indicated that 15% of women do not receive any ANC checkups at all (17–19).

A similar study in Haiti showed that, 67.9% of women obtained at least four antenatal visits for their most recent birth. This study also indicated that women education and birth order had statistically significant association with utilization of antenatal care, whereas the result of the study in Lubumbashi city of a Democratic Republic of Congo, indicated that 92.6% of women had attended ANC at least once. Women who had unplanned pregnancies were also more likely not to use ANC than those who had planned pregnancies alone or with their partner (20,21). A systematic review conducted on the effects of pregnancy intention on the use of

antenatal care services indicated that, unintended pregnancy is associated with late initiation and inadequate use of antenatal care services (22).

The finding of the survey in Abakaliki Urban, Nigeria ,in 2013 indicated that maternal age, parity and number of living children have significant effect ( $P < 0.05$ ) on utilization of maternal health services while maternal occupation do not have significant effect ( $P \leq 0.05$ ). Another study conducted in Bayelsa State, Nigeria, in 2013 revealed that, there is significant association between educational status, parity, age and utilization of maternal health care services (23,24). Similarly the study in Ghana revealed that, wealth has a significant influence on adequate use of antenatal care(25).

In Ethiopia, also different studies have indicated low utilization of maternal health services and factors affecting its utilization varied by geographic area and socioeconomic and cultural settings in the country. According to the 2014 EMDHS report, 80% of women residing in urban areas received ANC services from a skilled provider for their last birth of which about 39.6% made their first ANC visit before the fourth month of pregnancy and only 67.5% have made four or more visits. The proportion of women who received ANC is greatest among those women in the highest wealth quintile and higher educational level (14). A study conducted in Hadiya zone, Southern Ethiopia, revealed that 86.3% women attended ANC, 406 (68.2%) started ANC visit during the second trimester of pregnancy and 250 (42%) had less than four visits. Maternal age, family size, maternal education, and perceived morbidity were major predictors of antenatal care service utilization(26), whereas study in Jimma revealed that religion have significant association with ANC utilization(27).

A study conducted in Holeta town, in 2012 revealed that, 87% of the women had at least one antenatal care visit, 33.7% had less than four ANC visits during their last pregnancy. This study indicated that there was a significant association ( $P < 0.05$ ) between ANC attendance and age at last birth, literacy status of women, average monthly family income, media exposure, and presence of husband approval (28). Other studies conducted in Yirgalem and Jimma town (29) and Yem special zone (30), revealed that husbands approval and planning for last pregnancy has a greater effect on ANC utilization.



A similar study conducted in Shashemene Town, in 2012 indicated that only 34.9%, women attended ANC during the first trimester of their pregnancy (31).

### **2.1.2. Utilization of delivery care services**

With regarding to utilization of delivery care services, a study in Gujarat, India indicated that ,only 4 out of five women (81%) sought skilled care during the last delivery, while 19% of women delivered at home without any skilled assistance. According to this study, increase in education level of women and number of ANC received were tending more utilization of skilled care during delivery(18). Similarly in Nepal, under utilization of maternal health services is one factor contributing to high maternal mortality rates, 81% of births take place at home, and 7% of births take place without any type of assistance during delivery (19).

In Haiti, women's education and birth order had statistically significant association with utilization of skilled birth attendance. According to the study conducted in Democratic Republic of Congo, 93.8% of women had delivered at a healthcare facility, and 97.2% had delivered in the presence of qualified healthcare personnel. However, woman's age, marital status, profession, level of education and complications during the previous delivery were not associated with utilization patterns of delivery care services (20,21).

In Ethiopia, the large proportion of births (85%) occurs at home and skilled health professionals attend only 15% of births delivered at a health facility. About 63% of births in urban areas and 86.5% of births in Addis Ababa take place at health institutions by skilled birth attendants. Similarly a woman with first birth order , aged 20-34, who had at least 4 ANC visit, highly educated, the highest wealth quintiles and urban residents had more proportion of delivery in health facility. On the reason for not delivering in health facility; 45% lack awareness and stated that health facility delivery was not necessary, and 33% stated that it was not customary (14). In Ethiopia household income has significant effect on utilization of maternal health care because health financing continues to come from household out-of-pocket spending (32).

A study conducted in Bahir Dar City revealed that, 78.8% of women gave birth to their current child at health institutions and 21.2% gave birth at their home. This study also indicated that

educational status of women and gestational age at first ANC visit are independent predictors of delivery service utilization (33). A similar study conducted in Goba woreda, Bale zone in 2013 (n= 580) indicated that, 264 (47%) of the mothers delivered in health facilities. According to this study; place of residence, ANC visit and maternal educational level were found to be associated with institutional delivery service utilization(34). A study in Raya Alamata District, North East Ethiopia(35), indicated that place of residence, final decision maker on place of delivery, and ANC visit were the significant determinants of skilled birth attendant use by mother. Similarly, women from Addis Ababa are about five times more likely to receive delivery care from a health professional than women from other urban areas (36).

Also the study conducted in Holeta town revealed that about 61.6% of the women had given birth in the health institutions. A multivariate analysis result of this study shown that parity, literacy status of women, family income, decision where to give birth and ANC attendance were found to be significantly associated ( $P < 0.05$ ) with delivery care (DC) attendance(28). Similarly, a study conducted in Shashemene town indicated that 62.3% of women had given birth in the health institutions and the likelihood of attending and delivering at health facility was high for women whose income and educational status were high (31).

A study conducted in Boricha District of Sidama Zone, Southern Ethiopia showed that Women who had previous history of abortion have an increased chance to use health facilities for delivery compared to those who had no previous history of abortion. This study also indicated that, women who give high value to the expected child may be more likely to utilize health facility at delivery than those with unwanted pregnancies(37). Another study conducted in Tigray Region revealed that, women with a previous history of difficult/prolonged labour were more likely to use institutional delivery care(38).

### **2.1.3. Utilization of Postnatal care (PNC) service**

Regarding to utilization of PNC services ,the latest survey data of Nepal showed that only 45% of mothers received PNC(19), and the result of the study conducted in Democratic Republic of Congo revealed that, only 34.6% postnatal women had attended PNC by 42 days after delivery. Women who had unplanned pregnancies were also more likely not to use PNC than those who had planned pregnancies alone or with their partner. The women who had not used ANC were

also more likely not to use PNC. However, women age, marital status, profession, level of education and complications during the previous delivery were not associated with utilization patterns of PNC services; the women who had had a trouble-free delivery were more likely not to use PNC than those who had complications when delivering (21). Similar study conducted in urban India showed that wealth index; mothers education, full antenatal care, safe delivery care and place of residence appear as significant factors affecting postnatal care utilization (39).

In Ethiopia, the proportions of mothers who attended PNC service are very much lower than SSA. Only 12% of women with a live birth received postnatal checkup within two days as recommended. The great majority of women (83 percent) with a live birth in the preceding five years did not receive postnatal checkup at all. About 48% of women in urban areas and 70% of women in Addis Ababa received post natal care within two days after delivery. With respect to factors associated with postnatal care utilization, women who were under age 35, delivered their first live birth, urban residents, those with higher levels of education, and those in the highest wealth quintiles were most likely to have received postnatal checkup in the first two days after childbirth (14).

A study conducted in Jabitena district, Amhara region, in 2013 indicated that only 20.2% mothers utilized postnatal care service. It indicated that, educational status, women autonomy, number of pregnancy and place of delivery were found to be significantly associated with post natal care service utilization (40).

In general, a study conducted on levels and trends in maternal health services utilization in 38 developing countries indicated that there is a strong positive correlation between number of antenatal visits, having skilled birth attendance, and receiving postnatal care. Women who delivered in a health facility, compared to those who did not, are more likely to report postnatal checkups within two days after delivery and to receive postnatal care from a doctor, nurse or midwife(7).

## 2.2. Conceptual framework of the study

The conceptual framework for this study was adapted from Andersen and Newman Framework of Health Services Utilization. The Conceptual framework of the study is shown on figure 1. This framework discovers conditions that either facilitate or impede utilization. An individual's access to and use of health services is considered to be a function of three characteristics:

- I. *Predisposing factors*: The demographic and socio-cultural characteristics of individuals such as age, education, occupation, religion, ethnicity/race, marital status and family size that exist prior to their illness/condition.
- II. *Enabling factors*: Includes the logistical aspects of obtaining care which includes family income, health insurance, service availability and accessibility, travel
- III. *Need Factors*: Perceived need is "how people view their own general health and functional state, as well as how they experience symptoms of illness, pain, and worries about their health and whether or not they judge their problems to be of sufficient importance and magnitude to seek professional help." It is the most immediate cause of health service use, from functional and health problems that generate the need for health care services(41).

## Conceptual framework

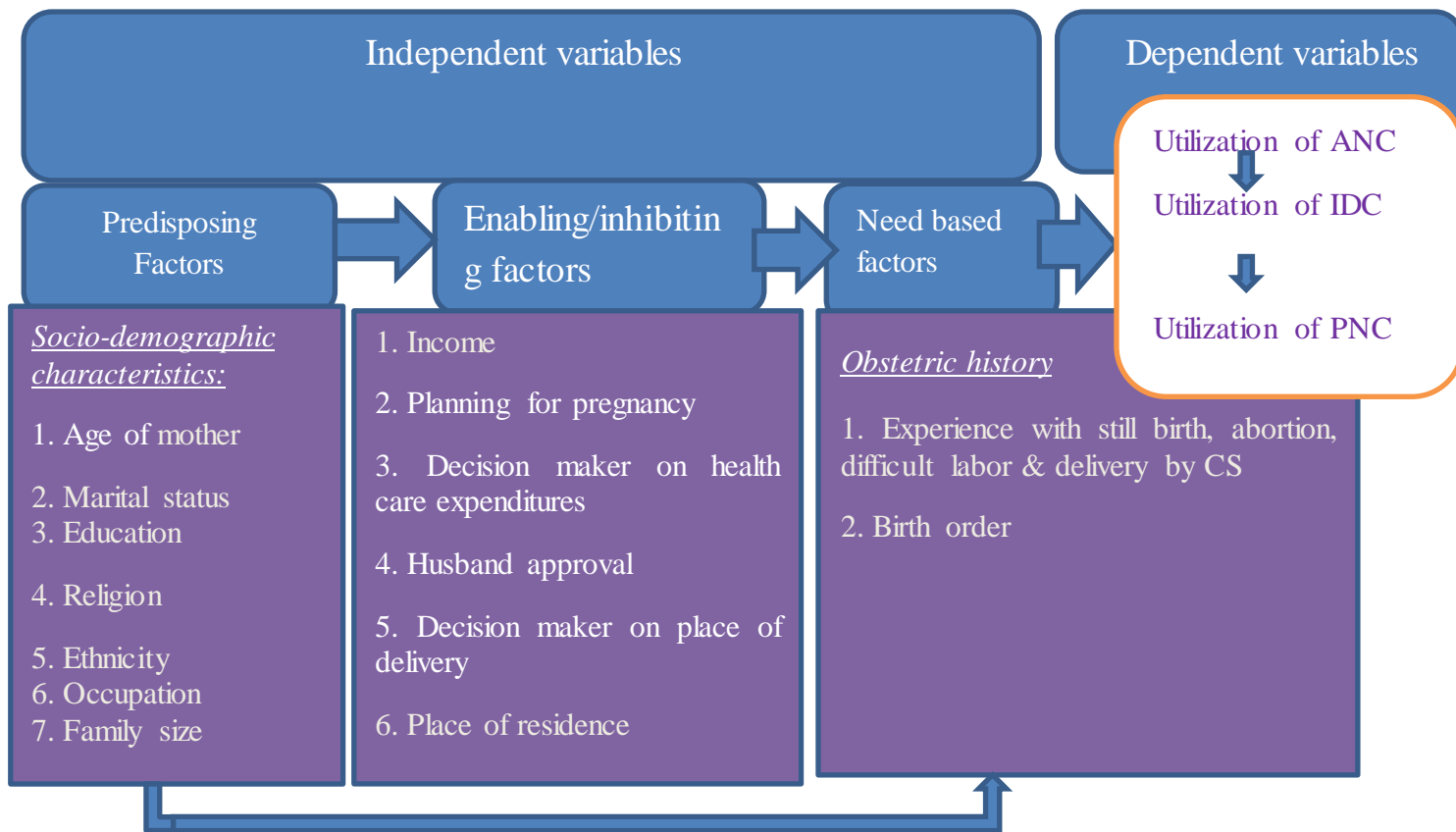


Figure-1: Conceptual framework for utilization of maternal health care services and associated factors in Bishoftu town, central Ethiopia, 2015 (Adapted from Andersen and Newman Framework of Health Services Utilization).

## **CHAPTER THREE: OBJECTIVES**

### **3.1. General objective**

To assess maternal health care services utilization and associated factors in Bishoftu town, Oromia Region, central Ethiopia, 2015.

### **3.2. Specific objectives**

- ✚ To determine the magnitude of antenatal care service utilization in Bishoftu town, central Ethiopia, 2015.
- ✚ To determine the magnitude of institutional delivery care service utilization in Bishoftu town, central Ethiopia, 2015.
- ✚ To determine the magnitude of postnatal care service utilization in Bishoftu town, central Ethiopia, 2015.
- ✚ To identify factors associated with the utilization of antenatal care, institutional delivery and postnatal care services in Bishoftu town, central Ethiopia, 2015.

## CHAPTER FOUR: METHODS AND MATERIALS

### 4.1. Study area and period

This study was conducted in Bishoftu town, from March 10 to 25, 2015. Bishoftu town is one of the 6 special towns in Oromia Regional State, and located at 47km away from Addis Ababa, the capital of Ethiopia in the south eastern direction on the main road from Addis Ababa to Dire Dawa, Harar, and Djibouti. Administratively, the town is subdivided in to 13 *kebeles* (the smallest administrative unit in the country), 9 urban and 4 semi-urban *kebeles*. Based on the information obtained from the Town Health Office, in 2014 the total population of Bishoftu town was about 171,909 of which 5,535(3. 22%) are expected surviving infants, and the number of estimated deliveries were 5,965 (3.47%).The population of Bishoftu town obtains health services from two government owned hospitals, three health centers, 26 private clinics, two NGO clinics and from health extension program. The majority of these health facilities were distributed in urban kebeles(42).

### 4.2. Study design

A community based cross-sectional study design was employed.

### 4.3. Population

#### 4.3.1. Source population

The source population for this study was all women of reproductive age who gave birth in the last one year preceeding to the survey date.

#### 4.3.2. Study population

The study population was samples of women who gave birth in the last one year prior to the survey date.

#### 4.3.3. Inclusion and exclusion criteria

##### 4.3.3.1. Inclusion criteria

Mothers who lived in Bishoftu town for at least six months were included in the study. Regarding a woman having two under one child the most recent (last) birth was included.

#### 4.3.3.2. Exclusion criteria

- Mothers who were mentally and or physically incapable to respond were excluded

### 4.4. Sample size and sampling procedure

#### 4.4.1. Sample size determination

The sample size for the study was determined using a single population proportion formula with the following assumptions: Degree of precision or margin of error of 5%, a confidence level of 95% ( $Z = 1.96$ ),  $p = 62.3\%$  (the proportion of institutional deliveries from similar study in the region)(31), 5% contingency prospective for non-response rate, and a design effect of 2 for a multi-stage sampling. The computed formula was as follows:

$$n_0 = \frac{(Z\alpha/2)^2 P (1-P)}{d^2}$$

Where:

$n_0$  = sample size required

$Z$  = 95% confidence level (1.96)

$D$  = margin of error (5%)

$P$  = proportion of institutional deliveries

Then 
$$n_0 = \frac{(1.96)^2 (0.623 * 0.377)}{(0.05)^2} = 360.9$$

Since sampling was from finite population,  $N$ , (i.e. consists of less than 10,000 populations), and  $n/N > 5\%$ , the final sample size  $n$ , was calculated using finite population correction formula as follows:

$$n = \frac{n_0}{\left(1 + \frac{n_0}{N}\right)}$$

Where  $n_0 = 360.9$ ,  $N = 5,965$

$n = 340$

By considering design effect of 2,  $340 * 2 = 680$

Then, by considering 5% non-response rate,  $680 * 5\% = 34$

So, the final total sample size ( $n$ ) will be  $680 + 34 = \underline{\underline{714 \text{ women}}}$



#### 4.4.2. Sampling technique

A stratified multi-stage simple random sampling technique was used to identify the study participants. First, the town was stratified into nine urban *kebeles* (the smallest administrative unit in Ethiopia) and four semi-urban *kebeles*, then four *kebeles* from urban and two *kebeles* from semi-urban were randomly selected using lottery method. The lists of eligible women who lived in the selected *Kebeles* were obtained from health extension professionals to serve as a sampling frame. The total sample size was allocated based on proportional to the size of eligible women found in each *kebeles*. Finally, the respondents recruited in each *kebele* were identified using computer generated random number. After sorting the randomly generated house number; a woman with lower house number and near to kebele Administration was selected first for interview. Three call backs were made in case when eligible respondents were not available at the time of the survey. Eventually mark was put on the door to avoid overlapping or missing the house of a sampling frame.

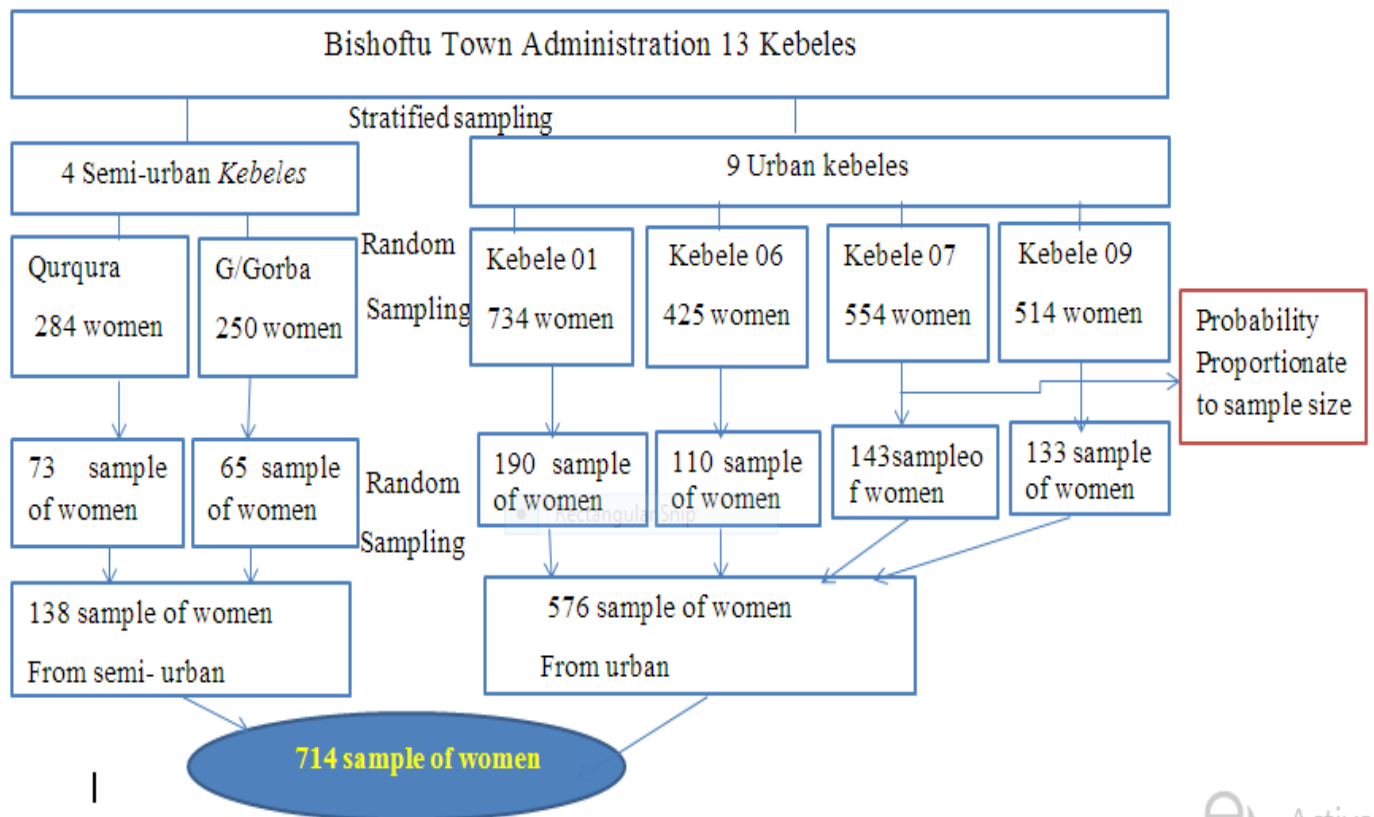


Figure- 2: Schematic presentation of sampling procedure for identifying study participants for a study on utilization of maternal health care services and associated factors in Bishoftu town, Oromia Region, central Ethiopia, 2015.

## **4.5. Study variables**

### *4.5.1. Dependent variable*

Utilization of maternal health care services specifically (ANC, Institutional delivery care and PNC)

### *4.5.2. Independent variables*

- ❖ *Predisposing factors:* are Socio-demographic factors such as age of mother, educational level of mother, marital status, religion, ethnicity, occupation and family size
- ❖ *Enabling factors:* Family income, decision maker on health care expenditure, husband approval, decision maker on where to give birth, planning for pregnancy and place of residence
- ❖ *Need based factors:* Previous history of abortion, difficult labor, still birth, delivery by caesarean section, number of live births (parity) and birth order.

## **4.6. Data collection procedure and instruments**

### *4.6.1. Data collection tools*

Structured questionnaire was adapted from MEDHS 2011 and related literatures (14,38,43,44) and then translated into Afan Oromo and Amharic for better understanding by the data collectors and respondents and retranslated back to English by another individual fluent in both languages for accuracy and consistency (annex II &III). The contents of the questionnaire includes: Socio-demographic and obstetric characteristics of women, and utilization of maternal health care services (ANC, institutional delivery care and PNC). Before actual data collection, questionnaire was pre-tested to make sure that the questions were clear and could be understood by both the enumerator and the respondents on 5% (36) eligible women in kebele 08 which did not included in the study and has similar socio- demographic characteristics with the study population. Based on the feedback obtained from pretesting, further refinement of the questionnaire was made.

### **4.6.2. Personnel**

Five female diploma holders in nursing and who can speak both Afan Oromo and Ahmaric were recruited as data collectors and two BSc nurses as supervisors, trained for two days intensively regarding the objective of study, techniques and how to approach the respondents and art of interviewing. The training was given by the principal investigator prior to the data collection. During the actual data collection, each supervisor supervised three data collectors

which represent three *kebeles* per supervisor. The supervisor has checked the activities of each of the data collectors by moving with them in each *kebele* and sometimes revisiting households. Every day, filled questionnaires were checked for completion, clarity, and proper identification of the respondents.

#### *4.6.3, Data collection procedures*

In collecting the data, a face-to-face interview technique was used by going house to house in the selected *kebeles*.

### **4.7. Operational definitions**

***Utilization of maternal health care services:*** was measured using respondents utilization of selected maternal health care services specifically (ANC, institutional delivery care, and PNC) services.

***Antenatal care (ANC) utilization:*** a woman was considered to have used ANC, if she was checked by a skilled health professional at least once during her last successful pregnancy. The variable was categorized into four categories: 0- no ANC, 1-one ANC visit, 2-two to three visits, and 3-four or more visits(6).

***Institutional delivery care utilization:*** is whether the women gave birth at health facility (public or private) with an assistance of a skilled birth attendant for her youngest child.

***Postnatal care (PNC) utilization:*** whether the woman received the care provided to women within six weeks (42 days) after delivery from skilled health attendant (45).

***Skilled birth attendant (SBA):*** refers to a health professional such as a midwife, doctor or nurse, who is trained and competent in the skills needed to manage normal childbirth and the immediate postnatal period, and who can identify complications and, as necessary, provide emergency management and/or refer the case to a higher level of health care (8).

***Skilled health attendant:*** An individual who has received education and training to provide skilled postnatal care for a woman and/or her baby. These include midwives, general practitioners, and health visitors but may also apply to other health care workers who have acquired appropriate skills in postnatal care(45).

***Permanent resident:*** a woman who has lived in the study area for at least six month.

***planned pregnancy:*** is a pregnancy that is timed and wanted at the time of conception(46).

***Semi-urban:*** between urban and rural; but not wholly characteristic of urban areas.

#### **4.8. Data analysis**

Each questionnaire was given a unique code and entered using Epi-Data version 3.1 and was cleaned for errors prior to data analysis. Then, the data was exported and analyzed using SPSS version 20 statistical software. Frequencies and summary statistics such as means, standard deviations, and percentages were computed and presented by tables and charts to describe the study population in relation to relevant variables. Both bivariate and multivariate logistic regression analyses were done to assess association and significances between the dependent and independent variables. All variables with a p-value  $<0.25$  in the bivariate analysis were further fitted to multivariate logistic regressions for better prediction of associated factors. Crude and adjusted odds ratio and their 95% confidence intervals were reported. A P- value  $< 0.05$  was taken as statistically significant. Multicollinearity in logistic regression among independent variables was tested. The final model for each multivariate analysis was tested using Hosmer and Lemeshow goodness-of- fit test statistics.

#### **4.9. Data quality management**

To enhance the reliability of the tools used in this study, questionnaires used in similar surveys and standard national demographic health survey on utilization of maternal health care services was consulted (14). Moreover, the instruments used in this study were pre-tested. The data collectors and supervisors were trained to make familiar with the tools used and the overall purpose of the research project. Continuous checking of the completed questionnaires (10% of the questionnaire) each day was carried out by the principal investigator. Incomplete questionnaires were referred back for completion.

#### **4.10. Ethical considerations**

Ethical clearance for the study was obtained from Ethical Review Board of Jimma University College of Health Sciences. Official support letter was received from Department of Health Economics, Management, and Policy of Jimma University to Oromia Regional Health Bureau, and administrative body of Bishoftu town. Data collection was under taken after permission is obtained from Bishoftu town Administration, town health office and each selected kebeles administration office. Study participants were asked for their consent before asking for any information and written and oral informed consent was taken from every study participants. Objective of the study was explained for every study participants and they were asked for information only after they gave their consent. No woman was obligated to participate into the

study without her consent. Finally, all data accessed were kept confidentially through coding of questionnaires anonymously and it was remain so throughout the study period and thereafter.

#### **4.11. Dissemination plan**

The result of this study will be disseminated to Jimma University College of Health Sciences as thesis defence presentation, Oromia Regional Health Bureau, Bishoftu Town Health office and other concerned and interested organizations. Finally, attempts will be made to publish the research in national or international journals.

## **CHAPTER FIVE: RESULT**

### **5.1. Socio-demographic characteristics of the study population**

A total of 707 women of reproductive age who gave birth in the last one year prior to this survey were interviewed making a response rate of 99%.The majority (572(80.9%)) of the respondents were urban residents. Similar number (573 (81%)) were between the age of 20 to 34 years. Majority (590 (83.5%)) of the respondents have attended school. Regarding to their occupation, little less than two third (457 (64.6%)) were housewives. Orthodox Christians constitute two third (471(66.6%)) of the total respondents. Most of the respondents (641 (90.7%)) were either married or lived with their partner. Oromo ethnic group constituted 375(53%) of the respondents.

Concerning parity, 328(46.4%) of the respondents had given birth once, 352(49.8%) of the respondents had given birth 2 to 4 times. About two-third of the respondents (472 (66.8%)) had 3 to 4 family size. With regard to monthly family income, 242(34.2%) of women reported that their monthly income was greater than 1900 birr. Regarding to their decision making power, majority 613(86.7%) of them reported that decision regarding health care expenditure was made both with their husbands, while only 94(13.3 %) of the decision is made by their husbands or family only (Table 1).

Table -1: Socio-demographic characteristics of respondents in Bishoftu town, Oromia Region, central Ethiopia, 2015(n=707).

Background Characteristics	Number	Percent
Place of Residence		
Urban	572	80.9
Semi-urban	135	19.1
Age at last birth		
15-19 year	34	4.8
20-34 year	573	81.0
35-49 year	100	14.1
Maternal education		
No education	117	16.5
Primary education(1-8)	224	31.7
Secondary education and above	366	51.8
Maternal occupation		
House wife	457	64.6
Merchant	65	9.2
Employed	92	13.1
Other*	93	13.1
Maternal religion		
Orthodox	471	66.6
Muslim	87	12.3
protestant	139	19.7
other <sup>±</sup>	10	1.4
Maternal ethnicity		
Oromo	375	53.0
Amhara	183	25.9
Guragie	87	12.3
Wolaita	21	3.0
Tigrie	23	3.3
Other <sup>€</sup>	18	2.5
Monthly family income		
<=900 birr	237	33.5
901-1900 birr	228	32.2
>1900 birr	242	34.2
Family size		
2	36	5.1
3-4	472	66.8
>=5	199	28.1
Marital status		
Married	641	90.7
Others <sup>¥</sup>	66	9.3
Decision maker on health care spenditure		
Self(both of us)	613	86.7
Husband only /other	94	13.3

\* Daily laborer, house maid, student ¥ - single, divorced, widowed, separated € - Hadiya, Silxe, Adare, ± -Catholic, "Waqefata"

## **5.2. Patterns of ANC, Institutional delivery and PNC services utilization**

Out of all respondents, 676(95.6%) had at least one antenatal care visit during their last pregnancy. Six hundred and thirty seven (94.2%) mothers had received ANC from skilled ANC attendants. Four out of five (552(81.7%)) mothers among who had ANC visits started their ANC visit during the first trimester of their pregnancy. Surprisingly almost three-quarters (74.3%) of women had four or more ANC visits. More than half of the respondents (55.2%) received ANC from government hospitals and only 36(5.3%) received ANC from private clinics. Little more than three-quarters (75.7%) of the mothers reported that their last pregnancies were planned. Among women who received at least one ANC visit, the large majority (626(92.6%)) reported that they sought their husbands approval for their visit (Table 2).



**Table -2: Utilization of ANC services among women who gave birth in the last one year preceding the survey in Bishoftu town, 2015(n=707).**

Variables	Number	Percent
Had atleast one ANC(N=707)		
Yes	676	95.6
No	31	4.4
Provider of ANC service(N=676)		
Doctor	87	12.3
Nurse	222	31.4
Midwife	364	51.5
Health officer	3	0.4
Timing of first ANC visit(N=676)		
First trimester	552	81.7
Second trimester	117	17.3
Third trimester	7	1.0
Frequency of ANC visits(N=676)		
Less than four	174	25.7
Four and above	502	74.3
Place where ANC recieved		
From HC	265	39.2
From hospital	373	55.2
From private clinic	36	5.3
Others €	2	.3
Planned pregnancy(N=707)		
Yes	535	75.7
No	172	24.3
Husband approval for ANC visit(N=707)		
Yes	634	89.7
No	73	10.3

€- NGO clinics

**Major reasons for ANC non-attendance:** Among the 31 women who did not received ANC, the reported reasons for non -attendance includes, 14 out of 31 reported pregnancy was not planned ,5 out of 31 reported had no health problem, 4 out of 31 household chore,4 out of 31 long waiting time to get ANC(Figure3).

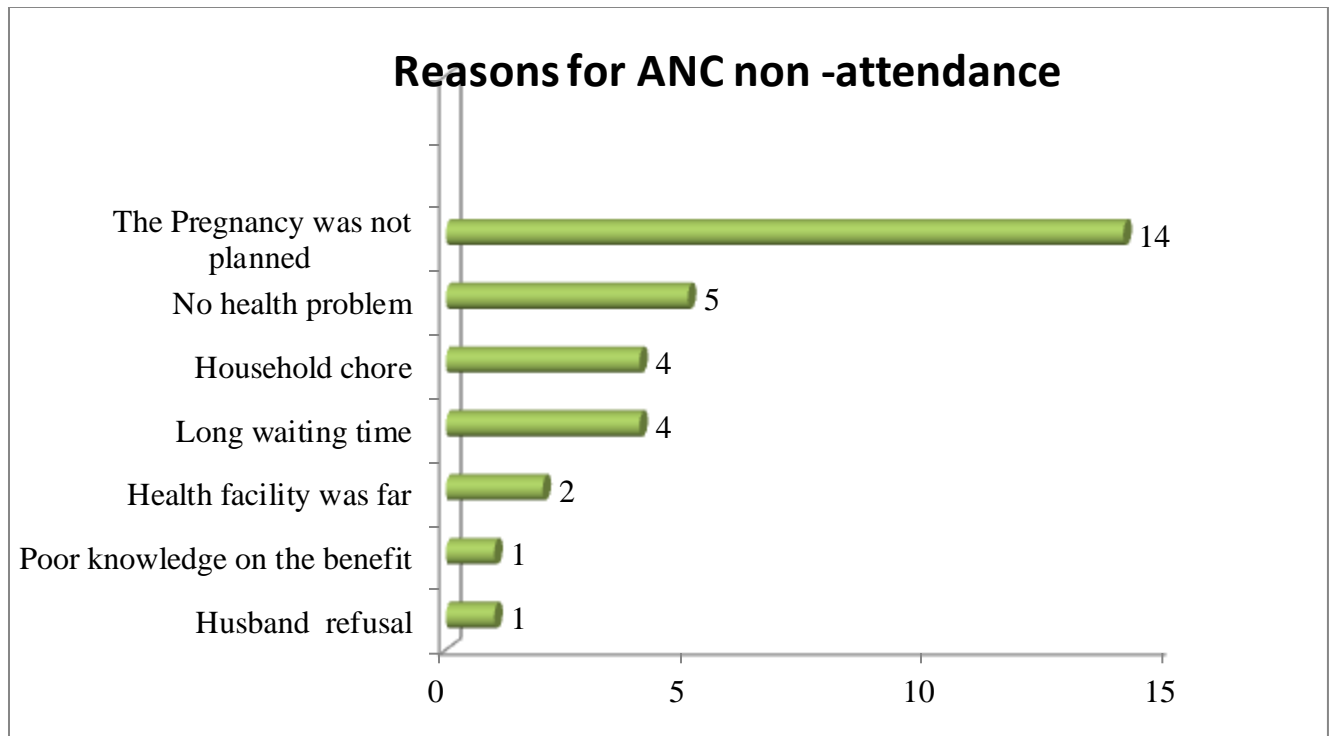


Fig -3: Reported reasons for ANC non- attendance in Bishoftu town, 2015 (N=31)

Concerning to utilization of institutional delivery care, 603(85.3%) women delivered their recent birth in health institutions. Majority (71%) of urban and 14.3 % of semi-urban women gave birth at health institutions. Almost all of the institutional deliveries, (598(99.2%)) were attended by skilled birth attendants. Majority of the respondents utilized hospitals (387(64.2%) and health centers (177(29.4%)) for their last birth. Among the mothers who gave their last birth in health institutions, more than two-third (410(68%)) utilized different type of vehicles, (149(27.9%)) utilized ambulance, and (44(7.3%)) use their foot to reach to health institutions. Regarding to previous obstetrics history of the respondents, 64(9.1%), 29(4.1%), 170(24.1%), and 114(16.1%) had abortion, still birth, difficult labour and delivered by CS, respectively. Nearly half of the respondents (321(45.4%)) gave birth for first time. Among the home deliveries, 33(31.7%), 23(22.1%) and 30(28.8 %) women were assisted by their mothers, mother-in-law and neighbouring women respectively. As to decision maker on the place where to give birth, majority (635(89.8%)) of the women reported that they decided along with their husbands, and only 72(10.2%) of the mothers reported that either husband or his family only have decided on place of delivery (Table 3).

Table-3: Utilization of institutional delivery care among women who gave birth in the last one year preceding the survey in Bishoftu town, 2015(n=707).

Variables	Number	Percent
Place of delivery(N=707)		
Institutional delivery	603	85.3
Home delivery	104	14.7
Type of skilled attendant(N=603)		
Doctor	104	17.2
Midwife	448	74.3
Nurse	46	7.6
Other	5	0.8
Health institutions used for delivery(N=603)		
At health center	177	29.4
At Hospital	387	64.2
At Private clinic	37	6.1
Other €	2	3.3
Mode of transportation to HF(N=603)		
On foot	44	7.3
Ambulance	149	24.7
Other Vehicles	410	68.0
Birth order(N=707)		
1	321	45.4
2-3	320	45.3
4-5	66	9.3
Previous history of abortion(N=707)		
Yes	64	9.1
No	643	90.9
Previous history of still birth(N=707)		
Yes	29	4.1
No	678	95.9
Previous history of difficult labour(N=707)		
Yes	170	24.1
No	537	75.9
Previous history of delivery by CS(N=707)		
Yes	114	16.1
No	593	83.9
Home delivery assisted by(N=104)		
Mother	33	31.7
Mother -in-law	23	22.1
TTBA	11	10.6
A neighbouring women	30	28.8
Other ¥	7	6.8
Decision maker on place of delivery(N=707)		
Self(both of us)	635	89.8
Husband/other	72	10.2

¥ Sister, Ambulance worker, Traditional birth attendant €- NGO clinics

Among those who gave birth at home, the major reported reasons for home delivery were; not considering it necessary since the labor was smooth 39(37.5%), lack of transport/ambulance 19(18.3%), previous home delivery was safe 18(17.3%), husband/family refusal 5(4.8%), no female provider at facility 4(3.8%)(Figure 4).

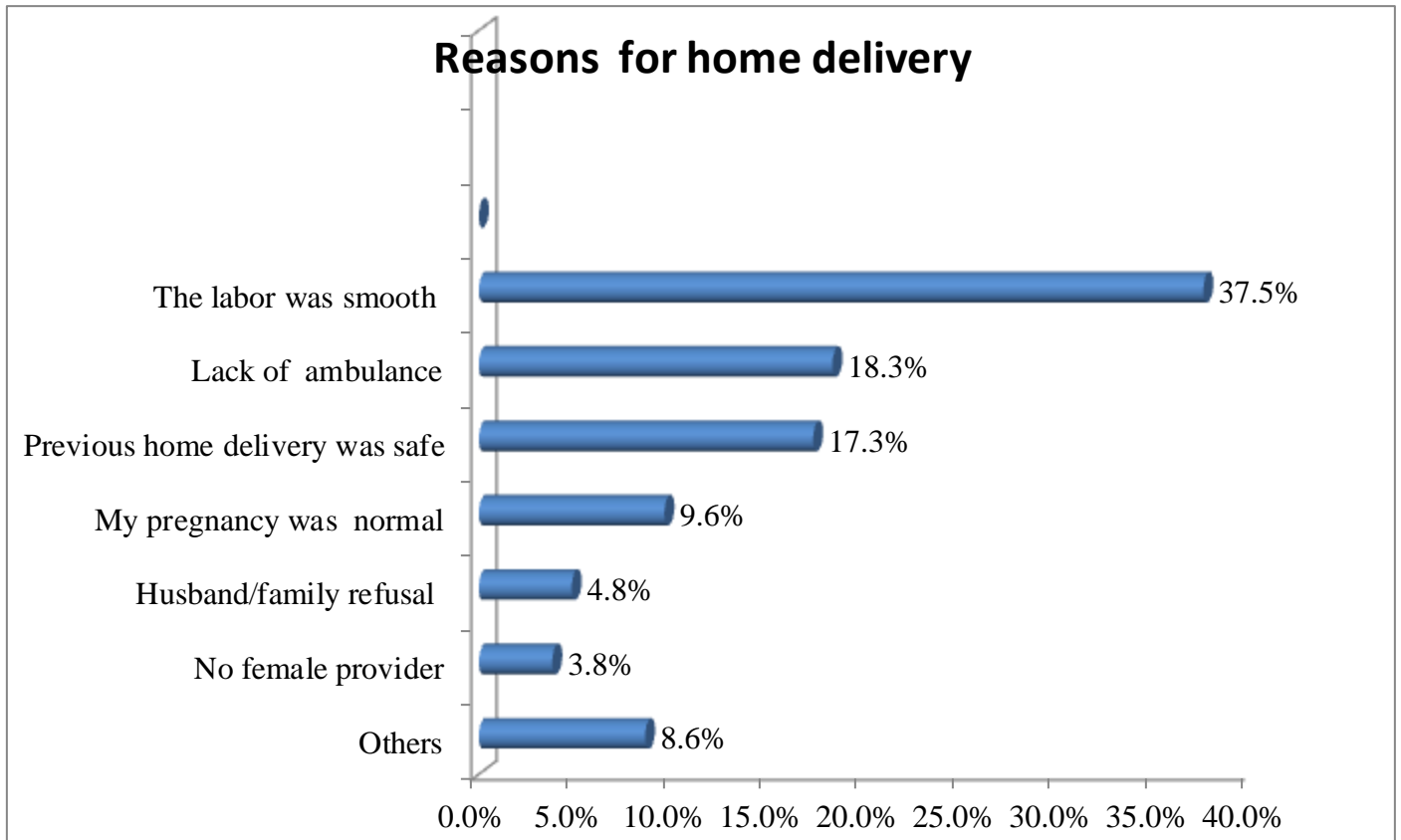


Figure -4: Reported reasons for home delivery in Bishoftu town, 2015 (N=104)

Concerning utilization of postnatal care, nearly three-quarter (71.4%) of women received medical checkup within six weeks after their last birth. Regarding to the timing of first postnatal care, nearly two- third (64.9%) mothers received the first checkup within two days after delivery of their last birth (Table 4).

Table -4: Utilization of postnatal care services among women who gave birth in the last one year preceding the survey in Bishoftu town, 2015(n=707).

Variables	Number	Percent
Utilization of Postnatal care		
Yes	505	71.4
No <sup>1</sup>	202	28.6
Timing of first PNC(N=505)		
Within 4 hours of delivery	133	26.3
4-23 hours of delivery	105	20.8
Within 1-2 day of delivery	90	17.8
Within 3-42 day of delivery	177	35.1

<sup>1</sup> Includes women who received a checkup after 42 days

The major reported reasons for not receiving PNC services were; feeling healthy (79(39.1%)), little or no knowledge on PNC (44(21.7%)), long waiting time at health facility (30(15%)), being far from health facility (22(10.9%)) and being busy (14(6.9%)) (figure 5).

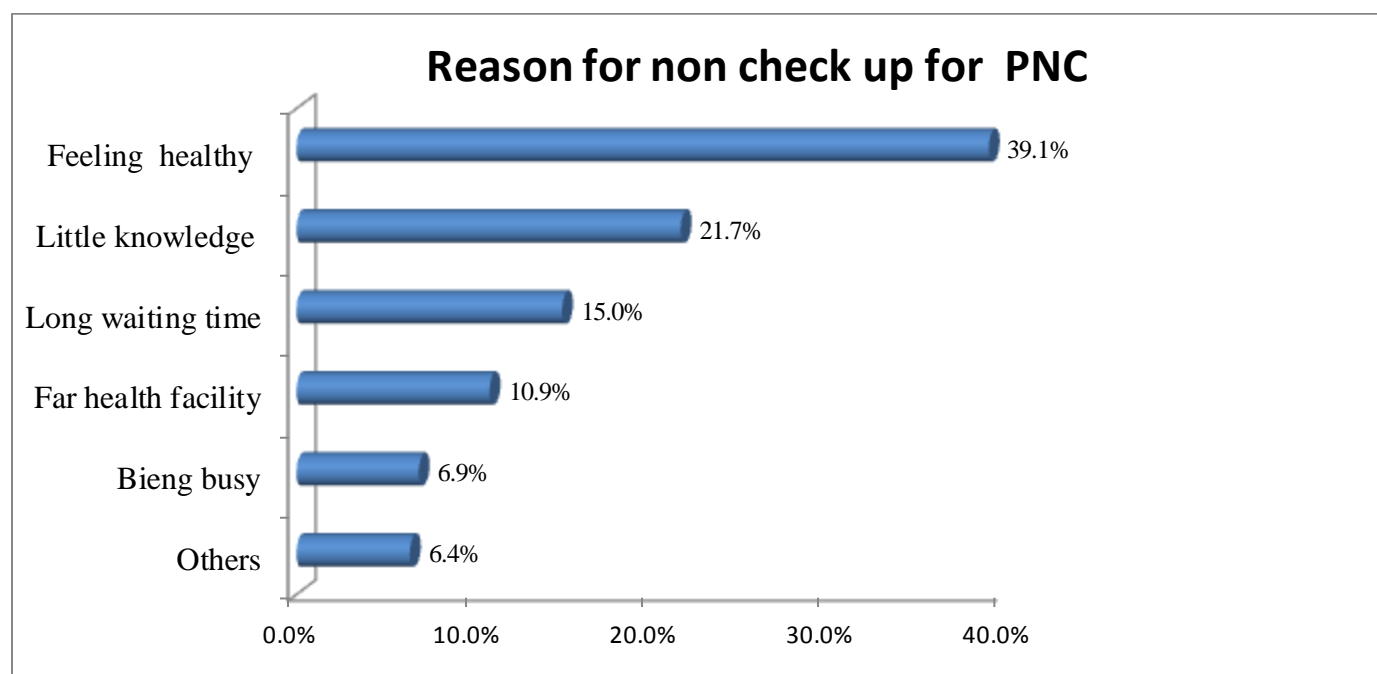


Figure- 5: Reported reasons for PNC non-checkup in Bishoftu town, 2015(N=202)

### **5.3. Factors associated with utilization of maternal health care services**

#### **5.3.1. Factors associated with utilization of antenatal care services**

In the bivariate analysis; place of residence, age at last pregnancy, education, religion, marital status, family income, family size, birth order, planning for pregnancy, husband approval for ANC follow up and decision maker on health care expenditure were found to have significant association ( $p < 0.05$ ) with utilization patterns of ANC). However, there was no association between maternal occupation and antenatal care utilization (Table 5).

Nevertheless, in the multivariate analysis, only six factors retained their significant associations with the utilization of ANC services. These were place of residence, education, religion, marital status, planning for pregnancy and presence of husband approval for ANC attendance. Place of residence was significantly associated with the use of ANC services. Women in semi-urban residence were 93% less likely to use antenatal care (AOR: 0.066, 95% CI: 0.015-0.293). Maternal education was found to have a significant association with the utilization of ANC services. Women who have completed secondary and above (AOR: 16.733, 95% CI: 1.780-57.296) were more than 16 times more likely to use ANC compared to women who had no education.

Utilization of antenatal care was significantly associated with religion of women. Muslim women were 95% (AOR: 0.041, 95% CI: 0.009-0.197) less likely to use ANC compared to Orthodox women. With regards to marital status, married women were 97% (AOR: 0.031, 95% CI: 0.003-0.374) less likely to use ANC compared to single/never married women. Planning for pregnancy had significant association with the use of ANC. Women who did not plan for their last pregnancy (AOR: 0.051, 95% CI: 0.010-0.261) were 95% less likely to use antenatal care compared to those planned for. Similarly, women whose husbands did not approve for ANC visit were 99% (AOR: 0.007, 95% CI: 0.001-0.040) less likely to use ANC compared to those whose husband/partner approve for ANC attendance (Table 5).

Table- 5: Factors associated with utilization of antenatal care services among women who gave birth in the last one year prior to the survey in Bishoftu town ,central Ethiopia ,2015(n=707).

Variables	ANC Utilization		COR(95% CI)	AOR(95% CI)
	Yes n(%)	NO n(%)		
<b>Place of Residence</b>				
Urban ®	566(99)	6(1.0)	1	1
Semi-urban	110(81.5)	25(18.5)	.047(0.019-0.116) §	.066(0.015-0.293) §
<b>Age at last pregnancy</b>				
15-19 year ®	29(85.3)	5(14.7)	1	
20-34 year	558(96.7)	19(3.3)	5.064(1.766-14.520) €	
35-49 year	89(92.7)	7(7.3)	2.192(0.646-7.438)	
<b>Maternal education</b>				
No education ®	103(88.0)	14(12.0)	1	
Primary (1-8) education	211(94.2)	13(5.8)	2.206(1.000-4.865)	2.357(0.502-11.057)
Secondary and above	362(98.9)	4(1.1)	12.301 (3.964-38.177) §	16.733(1.780-57.296) *
<b>Maternal occupation</b>				
House wife ®	434(95.0)	23(5.0)	1	
Employed	91(98.9)	1(1.1)	4.823(0.643-36.167)	
Other ±	151(95.6)	7(4.4)	1.143(0.481-2.718)	
<b>Maternal religion</b>				
Orthodox ®	463(98.3)	8(1.7)	1	1
Muslim	72(82.8)	15(17.2)	.083(0.034-0.203) §	.041(0.009-0.197) §
Protestant	131(94.2)	8(5.7)	.783(0.205-2.993)	.206(0.030-1.403)
Others <sup>£</sup>	5(50.0)	5(50.0)	.017(0.004-0.072) §	.002(0.001-0.060) §
<b>Marital status</b>				
Married	617(96.3)	24(3.7)	3.050(1.261-7.378) *	.031(0.003-0.374) €
Others <sup>α</sup> ®	59(89.4)	7(10.6)	1	1
<b>Maternal ethnicity</b>				
Oromo ®	352(93.9)	23(6.1)	1	
Amhara	180(98.4)	3(1.6)	3.920(1.162-13.232) *	
Guragie	86(98.9)	1(1.1)	5.619(0.748-42.189)	
Wolaita	19(90.5)	2(9.5)	0.621(0.136-2.829)	
Tigrie	22(95.7)	1(4.3)	1.438(0.185-11.143)	
Other <sup>¥</sup>	17(94.4)	1(5.6)	1.111(0.142-8.719)	
<b>Family income</b>				
<=900 birr	213(89.9)	24(10.1)	.037(0.005-0.275) €	
901-1900 birr	222(97.4)	6(2.6)	.154(0.018-1.285)	
>1900birr ®	241(99.6)	1(0.4)	1	

Table-5: Factors associated with utilization of antenatal care services among women who gave birth in the last one year prior to the survey in Bishoftu town ,central Ethiopia ,2015(n=707) (continued).

Variables	ANC Utilization		COR(95% CI)	AOR(95% CI)
	Yes n(%)	NO n(%)		
Family size				
2	31(86.1)	5(13.9)	.328(0.105-1.024)	
3-4	456(96.6)	16(3.4)	1.508(0.672-3.383)	
>=5 ®	189(95.0)	10(5.0)	1	
Planned pregnancy				
Yes ®	533(98.5)	8(1.5)	1	
No	143(86%)	23(13.9)	.093(0.041-0.213) §	.051(0.010-0.261) §
Husband approval				
Yes ®	626(98.7)	8(1.3)	1	
No	50(68.5)	23(31.5)	.028(0.012-0.065) §	.007(0.001-0.040) §
Birth order(rank)				
1	308(96.0)	13(4.0)	3.741(1.528-9.161) €	
2-3	311(97.2)	9(2.8)	5.456(2.076-14.337) €	
4-5 ®	57(86.4)	9(13.6)	1	
Decision maker on health care exspenditure				
Self/both jointly ®	591(96.4)	22(3.6)	1	
Husband / family only	85(90.4)	9(9.6)	.352(0.157-0.789) *	

± -Merchant, daily laborer, maid servant, student, α-single, divorced, widowed, separated

¥ -Hadiya, Silxe, Adare, ®-Refrence category £ -Catholic,"Waqefata"

\* Significant at  $p < 0.05$ ; € Significant at  $p < 0.01$ ; § significant at  $p < 0.001$



### 5.3.2. Factors associated with utilization of Institutional Delivery care Services

The bivariate analysis shows that, place of residence, age at last birth, maternal education, maternal occupation, religion, marital status, ethnicity, family income, family size, birth order, planning for pregnancy, decision maker on place of delivery and utilization of antenatal care had significant association ( $p < 0.05$ ) with utilization of institutional delivery. However, decision maker on health care expenditure, previous history of delivery by Caesarian section and difficult labour had no significant association ( $p > 0.05$ ) with utilization of institutional delivery (Table 6).

However, in the multivariate analysis after controlling for confounding factors, six factors such as place of residence, education, income, birth order, planning for pregnancy and antenatal care utilization had kept their significant associations and were the independent predictors of institutional delivery care utilization. Women who were from semi-urban residence were 88% less likely to use institutional delivery compared to those who were from urban residence (AOR: 0.125, 95% CI: 0.048- 0.326). Educational level of women was found to have a significant association with the use of institutional delivery care. Women who have completed primary school (AOR: 5.847, 95% CI: 2.856-11.970) and secondary school and above (AOR: 13.416, 95% CI: 5.879-30.645) were about 6 and 13 times more likely to use institutional delivery, respectively compared to women who had no education. With regards to income, women who earn monthly income of less than 900 birr (AOR: 0.044, 95% CI: 0.012-0.167) and those who earn within 901 to 1900 birr (AOR: 0.118, 95% CI: 0.030-0.464) were 96% and 88% less likely to use institutional delivery, respectively compared to women who earn greater than 1900 birr. On the other hand, the likelihood of using institutional delivery care decreases as birth order increases. Women with first birth order were little more than three times (AOR: 3.116, 95% CI: 1.271-7.637) and those 2<sup>nd</sup> to 3<sup>rd</sup> birth order were nearly three times (AOR: 2.961, 95% CI: 1.178-7.433) more likely to use institutional delivery care, compared to those birth order of 4<sup>th</sup> and above (Table 6).

Table -6: Factors associated with utilization of institutional delivery care services among women who gave birth in the last one year prior to the survey in Bishoftu town ,central Ethiopia ,2015(n=707).

Variables	Utilization of IDC		COR(95% CI)	AOR(95% CI)
	Yes n (%)	NO n(%)		
Place of Residence				
Urban ®	502(87.7)	70(12.2)	1	1
Semi-urban	101(74.8)	34(25.2)	.414(0.261-0.658) §	.125(0.048-0.326) §
Age at last birth				
15-19 year ®	24(70.6)	10(29.4)	1	
20-34 year	501(87.4)	72(12.6)	2.899(1.332-6.312) €	
35-49 year	78(78)	22(22)	1.477(0.615-3.549)	
Maternal education				
No education ®	63(53.8)	54(46.2)	1	1
Primary (1-8) education	189(84.4)	35(15.6)	4.629(2.774-7.724) §	5.847(2.856-11.970) §
Secondary and above	351(95.9)	15(4.1)	20.057(10.663-37.727) §	13.416(5.879-30.645) §
Maternal occupation				
House wife ®	391(85.6)	66(14.4)	1	
Employed	89(96.7)	3(3.3)	5.008(1.539-16.292) €	
Other ±	123(77.8)	35(22.2)	.593(0.376-0.937) *	
Maternal religion				
Orthodox ®	414(87.9)	57(12.1)	1	
Muslim	59(67.8)	28(32.2)	0.290(0.171-0.492) §	
Protestant	124(89.2)	15(10.8)	1.138(0.623-2.080)	
Others <sup>£</sup>	6(60.0)	4(40.0)	.207(0.057-0.754) *	
Marital status				
Married	561(87.5)	80(12.5)	4.007(2.304-6.970) §	
Others <sup>α</sup> ®	42(63.6)	24(36.4)	1	
Maternal ethnicity				
Oromo ®	311(82.9)	64(17.1)	1	
Amhara	168(91.8)	15(8.2)	2.305(1.274-4.169) €	
Guragie	74(85.1)	13(14.9)	1.171(0.613-2.239)	
Wolaita	17(81.0)	4(19.0)	0.875(0.285-2.686)	
Tigrie	18(78.3)	5(21.7)	0.741(0.265-2.068)	
Other <sup>¥</sup>	15(83.3)	3(16.7)	1.029(0.289-3.658)	

Table -6: Factors associated with utilization of institutional delivery care services among women who gave birth in the last one year prior to the survey in Bishoftu town, central Ethiopia, 2015(n=707)(continued).

Variables	Utilization of IDC		COR(95% CI)	AOR(95% CI)
	Yes n (%)	NO n(%)		
Monthly family income				
<=900 birr	164(69.2)	73(30.8)	.028(0.009-0.091) §	.044(0.012-0.167) §
901-1900 birr	200(87.7)	28(12.3)	.090(0.027-0.299) §	.118(0.030-0.464) €
>1900 birr ®	239(98.8)	3(1.2)	1	1
Family size				
2	22(61.1)	14(38.9)	.347(0.162-0.743) €	
3-4	418(88.6)	54(11.4)	1.710(1.080-2.705) *	
>=5 ®	163(81.9)	36(18.1)	1	
Planned pregnancy				
Yes ®	495(92.5)	40(7.5)	1	1
No	108(62.8)	64(37.2)	.173(0.112-0.269) §	.318(0.167-0.607) €
Birth order(rank)				
1	284(88.8)	36(11.2)	5.462(2.995-9.960) §	3.116(1.271-7.637) *
2-3	280(87.2)	41(12.8)	4.728(2.621-8.530) §	2.961(1.178-7.433) *
4-5 ®	39(59.1)	27(40.9)	1	1
Decision maker on health care expenditure				
Both/ jointly ®	529(86.3)	84(13.7)	1	
Husband only / family	74(78.7)	20(21.3)	0.588(0.341-1.013)	
Decision maker on place of delivery				
Both /jointly ®	552(86.9)	83(13.1)	1	
Husband only / family	51(70.8)	21(29.2)	0.365(0.209-0.638) §	
Frequency of ANC				
No ANC Visit	1(3.2)	30(96.8)	.003(0.001-0.021) §	.001(0.001-0.016) §
< 4 times	139(79.9)	39(7.8)	.335(0.204-0.548) §	.554(0.298-1.032)
>=4 times ®	463(92.2)	39(7.8)	1	1
History of difficult labour				
Yes	149(87.6)	21(12.4)	1.297(0.776-2.167)	
No ®	454(84.5)	83(15.5)	1	
History of delivery by CS				
Yes	103(90.4)	11(9.6)	1.742(0.900-3.369)	
No ®	500(84.3)	93(15.7)	1	

± -Merchant, daily laborer, maid servant, student, α-single, divorced, widowed, separated ¥ -Hadiya, Silxe, Adare,

£ -Catholic, "Waqefata" \* Significant at p<0.05; € - Significant at p<0.01; § -significant at p<0.001 ®-Refrence category

Regarding to planning for last pregnancy, women who reported that they did not plan for the last pregnancy were 68 % less likely to use institutional delivery care (AOR: 0.318, 95%CI: 0.167-0.607). Antenatal care attendance has significant association with utilization of institutional delivery care. Women who did not attend ANC were 99% (AOR: 0.001, 95% CI: 0.001-0.016) less likely to use institutional delivery compared to those attended ANC four and more times (Table 6).

### **5.3.3. Factors associated with utilization of postnatal care services**

The bivariate analysis shows the effect of each single independent variable on the utilization of postnatal care. Place of residence, education, religion, marital status, ethnicity, family income, birth order, family size, planning for pregnancy, utilization of antenatal care, previous history of delivery by CS and place of delivery had significant association ( $p < 0.05$ ) with utilization of post natal care services. However, age at last birth, occupation, and decision maker on health care expenditure had no significant association ( $p > 0.05$ ) with utilization of post natal care services (Table 7).

In the multivariate logistic regression analysis, antenatal care utilization, place of delivery and previous history of delivery by CS were found to be significantly associated with post natal care services utilization. Mothers who did not use antenatal care (AOR: 0.056, 95% CI: 0.007-0.433) were 94 % less likely to use postnatal care, compared to those who use ANC services. Similarly, mothers who gave birth in health institutions and had history of delivery by CS were eight times (AOR: 8.022, 95% CI: 4.685-13.737) and about two times (AOR=1.870, 95% CI: 1.068-3.274 more likely to utilize postnatal care services, respectively (Table 7).

Table-7: Factors associated with utilization of post natal care services among women who gave birth in the last one year prior to the survey in Bishoftu town ,central Ethiopia ,2015(n=707).

Variables	Utilization of PNC		COR(95% CI)	AOR(95% CI)
	Yes N (%)	NO N (%)		
<b>Place of Residence</b>				
Urban ®	471(82.3)	101(17.7)	1	
Semi-urban	81(60.0)	54(40.0)	.322(0.214-0.483) §	
<b>Age at last birth</b>				
15-19 year ®	23(67.6)	11(32.4)	1	
20-34 year	457(79.8)	116(20.2)	1.884(0.893-3.976)	
35-49 year	72(72.0)	28(28.0)	1.230(0.531-2.851)	
<b>Maternal education</b>				
No education ®	74(63.2)	43(36.8)	1	
Primary (1-8)	169(75.4)	55(24.6)	1.786(1.101-2.896) *	
Secondary and above	309(84.4)	57(15.6)	3.150(1.968-5.041) §	
<b>Maternal occupation</b>				
House wife ®	363(79.4)	94(20.6)	1	
Employed	72(78.3)	20(21.7)	1.353(0.887-2.063)	
Other ±	117(74.1)	41(25.9)	1.262(0.686-2.321)	
<b>Maternal religion</b>				
Orthodox®	343(72.8)	128(27.2)	1	
Muslim	52(59.8)	35(40.2)	.554(0.345-0.891) *	
Protestant	105(75.5)	34(24.5)	1.152(0.745-1.784)	
Others	5(50)	5(50.0)	.373(0.106-1.310)	
<b>Marital status</b>				
Married	508(79.3)	133(20.7)	1.910(1.106-3.298) *	
Other <sup>α</sup> ®	44(66.7)	22(33.3)	1	
<b>Maternal ethnicity</b>				
Oromo ®	287(76.5)	88(23.5)	1	
Amhara	154(84.2)	29(15.8)	1.628(1.025-2.587) *	
Guragie	64(73.6)	23(26.4)	0.853(0.501-1.454)	
Wolaita	16(76.2)	5(23.8)	0.981(0.350-2.754)	
Tigrie	15(65.2)	8(34.8)	.575(0.236-1.401)	
Other <sup>¥</sup>	16(88.9)	2(11.1)	2.453(0.553-10.876)	
<b>Monthly family income</b>				
<=900 birr	146(61.6)	91(38.4)	.439(0.293-0.657) §	
901-1900 birr	169 (74.1)	59(25.9)	.784(0.512-1.201)	
>1900 birr ®	190(78.5)	52(21.5)	1	

Table -7: Factors associated with utilization of post natal care services among women who gave birth in the last one year prior to the survey in Bishoftu town ,central Ethiopia ,2015(n=707)(continued).

Variables	Utilization of PNC		COR(95% CI)	AOR(95% CI)
	Yes N (%)	NO N (%)		
Family size				
2	21(58.3)	15(41.7)	.409(0.195-0.858) *	
3-4	330(69.9)	142(30.1)	.679(0.462-0.999) *	
>=5 ®	154(77.4)	45(22.6)	1	
Planned pregnancy				
Yes ®	451(83.4)	90(16.6)	1	
No	101(60.8)	65(39.2)	.310(0.211-.456) §	
Birth order(rank)				
1	248(77.3)	73(22.7)	1.699(0.956-3.017)	
2-3	260(81.2)	60(18.8)	2.167(1.209-3.884) €	
4-5®	44(66.7)	22(33.3)	1	
Decision maker on health expenditure				
Self( both of us)	477(77.8)	136(22.2)	1.125(0.657-1.928)	
Husband(other) ®	75(79.8)	19(20.2)	1	
ANC Utilization				
No	1(3.2)	30(96.8)	.008(0.001-0.056) §	.056(0.007-0.433) €
Yes ®	551(81.5)	125(18.5)	1	1
History of delivery by CS				
Yes	98(86.0)	16(14.0)	1.875(1.069-3.288) *	1.870(1.068-3.274) *
No ®	454(76.6)	139(23.4)	1	
Place of delivery				
At home ®	31(29.8)	73(70.2)	1	1
At health Institution	521(86.4)	82(13.6)	14.962(9.255-24.189) §	8.022(4.685-13.737) §

± -Merchant, daily laborer, maid servant, student, α-single, divorced, widowed, separated

¥ -Hadiya, Silxe, Adare, £ -Catholic, "Waqe fata" ®-Refrence category

\* Significant at p<0.05; € Significant at p<0.01; § significant at p<0.001

## CHAPTER SIX: DISCUSSION

This study revealed that 95.6% of women used at least one ANC visit. Surprisingly, almost three-quarter of women made four and above ANC visits as recommended by WHO (6). The current finding of having at least one ANC is higher than the findings of studies conducted in Gujarat India (92%), Lubumbashi city of Congo (92.6%), Hadiya zone (86%) and Holeta town (87%) respectively, (18,21,26,28). Still it is higher than the 2014 Ethiopian Mini-Demographic and Health survey (EMDHS) finding which identified 80% of women in urban areas, and 94.2% of women in Addis Ababa had at least one ANC visit (14). The possible explanation for higher magnitude of ANC utilization in Bishoftu town may be the town is near to the capital city of Ethiopia, and could have better opportunities for information, and better access to health institutions than other urban areas in the country. This study is also more recent than other studies. In this study the primary reasons for not attending ANC services includes unplanned pregnancy, perception of no health problem, having overburdened with household chores, and long waiting time to get ANC which are also similar reasons reported by other study(28).

A multivariate analysis showed that, place of residence, education, religion, marital status, planning of pregnancy and presence of husband approval had a statistically significant association with ANC utilization. Women place of residence was significantly associated with the utilization of both ANC and institutional delivery care services. This study showed that women those living in semi-urban areas were 93% and 88% less likely to use ANC and institutional delivery care, respectively as compared to those living in urban areas. Likewise, other similar studies mentioned place of residence as an important factor for maternal health services utilization (14,34–36). This may be because semi-urban dwellers may have less access to health facilities, health related information, and the preferred health professionals.

Maternal education was found to have a significant association with the utilization of ANC services. Women who have completed secondary and above were more than 16 times more likely to use ANC compared to women who had no education. This result is consistent with many other similar studies(14,20,24,28). In this study, religion has statistical significant

association with antenatal care utilization. Other studies indicated that maternal health services utilization is affected by religion of women (16,27,47). This may be because some procedures practiced in antenatal clinics such as exposing body parts or being attended by male health care professionals might contradict their religious values. This study also revealed that married women were less likely to use ANC compared to single or divorced women. Other studies (15,47) showed similar findings. A possible explanation might be that married women need to get husband approval, are less empowered and autonomous than single or divorced women.

In our study whether or not the pregnancy was planned was found to affect the utilization of ANC care service. The utilization of ANC service was less among women with unplanned pregnancies than those planned for their last pregnancy, which is similar to other studies findings (22,30). The possible explanation might be that; if women did not plan for their pregnancy, they might not have initiation for ANC follow up and or delay to start it. Similarly this study revealed that husbands or partners approval of ANC visit was significantly associated to antenatal care attendance. Women whose husband/partner refused for ANC visit were less likely to attend for ANC than for those husbands approves. It is also substantiated by other similar studies in Ethiopia (28,29). The possible explanation might be that, if the husband has no positive attitude towards ANC visit, he might not support or allow the woman to attend for ANC visit

With regards to the utilization of institutional delivery care, skilled attendance at birth and access to emergency obstetric care are key interventions in reducing the risk of maternal death(8). In this study, 85.3% of births had taken place at health institutions and only 14.7% taken place at home. This finding is some what similar with the findings of national study in Addis Ababa (86%) and other international studies, like in Gujarat, India (81%) and Democratic Republic of Congo (93.5%) (14,18,21). On the other hand, this finding is somewhat higher than the findings of other studies in Ethiopia, like, Holeta town (61.6%), Shashemene town (62.3%), and Bahir Dar City (78.8%) (28,31,33). The difference from many findings could be explained by the fact that the recently provision of Ambulance to each woreda might have contributed for the improvement in utilization of institutional delivery care and the present study area was near to the capital city of Ethiopia where mothers tend to have better access to maternal health care services and also the study is more recent.



In this study factors such as place of residence, education, income, birth order, and utilization of ANC and planning for pregnancy were found to have a significant influence on utilization of institutional delivery care services. The finding of our study revealed that maternal education has strong significant association with place of delivery. Women with primary education and secondary and above education were more likely to utilize institutional delivery care than those with no education. This result is consistent with many other national (14,31,33,34,48), and international (18,20,21) studies which showed a positive influence of education on utilization of institutional delivery care. This is because that, education is an opportunity to empower women; and empowered women have greater confidence and capability to make decision to use modern health care services for themselves and for their children.

Our study also found that income status has a significant association with utilization of institutional delivery care services. Women whose income was less than and/or equals to 900 birr/month and within 901 to 1900 birr/month were 96% and 88% less likely to use institutional delivery, respectively compared to those whose income was greater than 1900 birr/month. This result is consistent with other similar studies (14,15,25,28,31). Although the services for maternal health care were exempted, women were expected to cover medication and transportation costs because health services utilization in Ethiopia is mainly dependent on out of pocket payment (32).

This study showed that birth order is a significant determining factor for utilization of institutional delivery. Women who gave birth for the first time were more likely to use institutional delivery care compared to those four and above birth order. The higher the birth orders the less likely to use institutional delivery care services. This finding is consistent with other studies (14,20). This may be due to the fact that women with higher birth order may have developed self-confidence to deliver at home and may not be motivated to use a skilled health professional. However, women who gave birth for first time may be afraid of pregnancy complications and outcomes since they have had no prior delivery experience. This may be due to the perceived risk of first pregnancy on health.

The finding also revealed that a significant association between ANC visit during last pregnancy and the use of health facility for delivery services and PNC. Likewise, women who did not use ANC were less likely to use health institution during delivery and PNC services. This may be because women will be aware of the importance of attending delivery in health facilities as they might be counseled during the ANC session. This finding was in agreement with previous studies conducted in other areas of the country(14,28,34)and elsewhere(7,18,21).

Our study also revealed that, 71.4 % and 64.9% women received postnatal care services within six weeks and two days after their last delivery, respectively. This finding was consistent with the 2014 EMDHS report for Addis Ababa in which (77%) women were received the first checkup within 42 days and (70%) within two days(14). It was significantly higher than previous similar studies(19,21). The difference may be attributed to the time difference that there could be improvement in accessing and utilizing health care service through time.

A multivariate analysis showed that, utilization of ANC and institutional delivery care, and previous history of deliver by CS were found to be the independent predictors of postnatal care utilization. The likelihood of receiving postnatal care was higher among mothers who received institutional delivery care. Accordingly, the log odds of receiving postnatal care increases by eight times among mothers who delivered their last baby in health institutions than those who delivered at home. This finding is similar with other studies (14,39,40). This can be attributed to the fact that women who gave their last birth in health institution had greater opportunity to get exposed to health information related to PNC services and thus get access to learn about the benefits and availabilities of PNC services during their stay in the health institutions. Similarly, women who had history of delivery by CS were about two times more likely to utilize postnatal care services. Which is consistent with a study in Congo (21). This might be because ,women those have experienced symptoms of illness, pain, and worries about their health will develop perceived need for health care than those had a trouble-free delivery.

### **Limitations of the study**

The source of data for this study was based on self-report by respondents and no validation of obtained information with any objective sources such as health facility cards. Since the study was not supported by qualitative study, it might not deeply identify the cultural factors that influence maternal health care services utilization. Also there could be recall bias. Besides, we could not include the community and health system related factors that are thought to have influence on maternal health care services utilization.

## **CHAPTER SEVEN: CONCLUSIONS AND RECOMMENDATIONS**

### **7.1. Conclusions:-**

The finding of this study revealed that the utilization of maternal health care services in Bishoftu town, as indicated by major maternal health care indicators (antenatal care, institutional delivery and postnatal care services) is very satisfactory. The great majority of women received at least one antenatal care visit during their recent pregnancy, and almost three-quarter of them had four and more ANC visits as recommended by WHO. Similarly; the majority of women gave birth at health institutions. Nearly three-quarter of women received medical checkup within six weeks after their last birth, and about two out of three mothers received the first checkup within two days after delivery of their last birth. However, there is high discrepancy between ANC, institutional delivery and postnatal care services utilization.

Those women who attended beyond primary school, residing in urban areas, had high monthly income, had plan for pregnancy, sought husband approval for ANC visit, with low birth order, those never married and having history of delivery by CS were greatly advantaged in utilizing maternal health care services. Similarly, those women who had at least one ANC visit were more advantaged in utilizing both institutional delivery care and postnatal care. Moreover, the utilization of postnatal care was more among mothers who gave birth at health institutions.

## 7.2. Recommendations:-

Based on the findings of this study, the following recommendations were made

Bishoftu Town Administration:

- ❖ Should work to improve the economic status and decision making power of women.

Bishoftu Town Education Office in collaboration with Women and Youth Affairs office:

- ❖ Should focus on encouraging women to pursue education beyond to primary school

Bishoftu Town Health office:

- ❖ Should target high birth order women and provide awareness creation interventions on the benefit of institutional delivery care.
- ❖ As a short term solution maternal health programs need to focus on women with little or no education.
- ❖ Should focus on semi-urban women with its maternal health care interventions
- ❖ Need to make efforts to improve husbands or partners attitude by participating them in any maternal health care programs.

Bishoftu Town Health facilities:

- ❖ Should provide fast and quality maternal health care services
- ❖ Should provide continuous and fast ambulance services

Bishoftu Town Health Extension professionals:

- ❖ Need to strengthen referral services so that all pregnant women can get four & more ANC visit during their full course of pregnancy.

Further study for researchers:

- ❖ We recommend a qualitative study for further in depth study of factors associated with maternal health care services utilization.
- ❖ We recommend further study on the community and health system related factors influencing the utilization of maternal health care services.

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## ANNEXS

### Annex- i: Questionnaire in English version

#### Information sheet and consent form

##### Introduction

Hello! My name is \_\_\_\_\_ and I am from the research team of college of health sciences of Jimma University. We are working to assess utilization of maternal health care services and associated factors in Bishoftu town, within the fairly scientifically sampled kebeles. This study tries to identify level of utilization of maternal health care services and factors associated with its utilization. I am one of the data collectors and I am asking you some questions about your maternal health care services utilization status. Your participation indirectly contributed in improving the problem of maternal health care service utilization. Your response is never exposed to any party without your consent and it is possible not to tell your name and the interview takes only 20 minutes. There is no obligation to participate in the study. You have full right to refuse participation, refrain during interview and decline from answering to some or more of the question if you don't like to answer them. Would you please cooperate in responding the following questions?

Yes       No  →      Thanks her and go to the next women

##### Consent form

I have been briefly informed about the study and clearly understood the objective of the study. So I here approve my consent with my signature to take part in the study.

Name of the respondent \_\_\_\_\_ Signature \_\_\_\_\_ Date \_\_\_\_\_

**Jimma University, College of Health Sciences, Department of Health Economics, Management and policy**

Questionnaires to assess utilization of maternal health care services and associated factors in Bishoftu town, Oromia region, central Ethiopia in 2015.

001. Questionnaire Code \_\_\_\_\_ 002. Stratum 1- Urban \_\_\_\_\_ 2- Semi-urban \_\_\_\_\_

003. Kebele \_\_\_\_\_ 004. Got / Area name \_\_\_\_\_

005. Date of interview dd \_\_\_\_\_ /mm \_\_\_\_\_ /2015

006. Name of data collector \_\_\_\_\_

007. Name of Supervisor \_\_\_\_\_ check data & sign here \_\_\_\_\_

**Part I. Socio-demographic Characteristics of the respondents**

No.	Question	Responses	Code	skip
101	Age at last birth in complete years	_____ years		
102	What is your level of education?	1. No education 2. Only read & write 3. Elementary (1-8) grade 4. Secondary (9-12) grade 5. College or University and above		
103	What is your religion?	1. Orthodox 2. Muslim 3. Catholics 4. Protestant 5. Waqefata 6. Other Specify _____		
104	What is your marital status?	1. Single (never married) 2. Married 3. Divorced 4. Widowed 5. Separated		
105	To which ethnic group do you belong?	1. Oromo 2. Amhara 3. Guragie 4. Wolaita 5. Tigrie 6. Other Specify _____		
106	What is your occupation?	1. House wife 2. Merchant 3. Employed (Governmental + NGO) 4. Daily laborer 5. Farmer 6. Servant or maid 7. student 6. Other Specify _____		
107	Family size (in number)	_____		

108	Where is your place of residence?	1. Urban      2. Semi-urban		
109	About how much is your income per month in monetary terms? (for semi-urban area annual income in terms of crops harvested should be changed to cash)	_____ ETH.birr	For semi-urban area annual income in cash/12 month	
<b>Part II: Questions on Obstetric history of women</b>				
201	What is the total number of pregnancies in your life time (Probe for abortions, still births and current conception)?	_____		
202	How old were you at your 1 <sup>st</sup> pregnancy in completed years?	_____		
203	How old were you at your Last pregnancy?	_____		
204	What is the total number of live births (parity)	_____		
205	Have you ever had history of abortion?	1 .Yes      2.No		
206	Have you ever had history of still birth?	1. Yes      2.No		
207	Did you have history of difficult labour?	1 .Yes      2.No		
208	Did you have history of delivery by Caesarean section?	1 .Yes      2.No		
209	According to your birth order, where does the last baby belong to?	_____		
210	When you got pregnant your last pregnancy, did you want /plan to get pregnant at that time?	1. Yes      2. No		
<b>Part III: Questions on woman's utilization of maternal health care services( ANC,ID &amp; PNC)</b>				
301	Did you receive antenatal care at least once for your last pregnancy?	1. Yes      2. No	if 2 go to	<b>308</b>
302	If <b>yes</b> to <b>Q301</b> , from where did you receive ANC?	1. At home 2. Health center 3. Hospital 4. Private clinic 5. NGO Clinic		
303	If yes to <b>Q301</b> , How many weeks/months pregnant were you when you first received antenatal care for your last pregnancy?	_____ week _____ month Don't remember _____		
304	If yes to <b>Q301</b> , how many times did you receive antenatal care during your last pregnancy till delivery?	1. Once 2. Two time 3. Three times 4. Four or more		
305	If yes to <b>Q301</b> , from whom did you received ANC for your last pregnancy?	1. Doctor 2. Nurse 3. Midwife		

		4. Health officer 5. HEW 6. Other specify_____		
306	Did your husband approves/allows you to attend the ANC services?	1. Yes      2. No		
307	If yes to <b>Q301</b> , what are the reasons for attending ANC?	1. I was sick 2. To know the status of my fetus 3. To know my health status 4. My Husband encouraged me 5. Good service of health facility 6. Health facility was close to me 7. Other specify_____		
308	If your answer for <b>Q301</b> is No, what were the reasons for not attending ANC during your last pregnancy?	1. I had no health problem 2. I had work load 3. Not necessary 4. I don't know the benefit 5. It was unintended pregnancy 6. My husband/family refused 7. Long waiting time 8. Health facility was far 9. Other specify_____		
309	Where did you gave birth for your youngest child?	1. At home 2. At health facility 3. On the way to health facility		
310	If your answer for question <b>309</b> is at home, who assisted you?	1. Mother 2. Mother –in-law 3. TTBA 4. Traditional birth attendant(TBA) 5. A neighbouring women 6. Other specify_____		
311	If you gave birth at <b>home</b> for your youngest child, Why do you prefer to deliver at home? (Multiple response is possible)	1. Not necessary/labor was smooth 2. Lack of transport / ambulance 3. I don't think it was important to go to HF 4. Facility not open 5. Don't trust facility/poor quality of service 6. No female provider at facility 7. husband/family refused 8. It was customary 9. I was told my pregnancy is normal 10. Fear of operation 11. previous home delivery was safe 12. Other specify_____		
312	If your answer for <b>Q309</b> is at health facility, at which health facility?	1. At health center 2. Hospital 3. Private clinic 4. NGO Clinic 5. Health post 6. Other specify_____		
313	If your answer for question <b>309</b> is at health facility, who assisted you?	1. Doctor 2. Nurse		

		3. Midwife 4. Health Officer 5. HEW 6. Other specify_____		
314	If your answer for question 309 is at health facility, Why did you prefer it?	1. Difficult labor 2. Service is provided freely 3. Health facility was near to me 4. Need better service 5. Husband/Family allowed 6. HF delivery is save 7. I have told to give birth at HF 8. Bad outcome with previous HD. 9. Other (specify)_____		
315	If you gave birth at HF, what mode of transport you used to reach to the health facility for delivery?	1. On foot 2. Ambulance 3. Other Vehicles 4. On horse/mule back 5. Local stretcher 6. Other, specify_____		
316	After you gave birth to your youngest child, did any one check your health?	1 .Yes                      2.No		
317	Where did you receive PNC check/visit?	1. At home 2. At health center 3. At hospital 4. At private clinic 5. At NGO Clinic 6. Other specify_____		
318	How long after delivery did the first check take place?	1. Within 4 hours of delivery 2. 4-23 hours of delivery 3. Within 1-2 day of delivery 4. Within 3-42 day of delivery      5. Later		
319	Who checked on your health at that time?	1. Doctor 2. Nurse 3. Midwife 4. Health Officer 4. Other specify_____		
320	If you didn't receive PNC check/visit, what was the reason?	1. No knowledge on the need for PNC 2. Being healthy 3. Being busy 4. HF was far from me 5. Long waiting time 6. Other specify_____		
321	Who decided on the exspendture for health care in your family?	1. Myself 2. My husband 3. Both of us 4. Mother/family		

		5. Relatives 6. Others specify _____		
322	Who decided where you should give birth?	1. Myself 2. My husband 3. Both of us 4. Mother/family 5. Relatives 6. Others specify _____ —		

## Annex- ii: Questionnaire in Afan Oromo version

Universitii jimmaatti, koollejji saayinsii fayyaa, Muummee Ikonomiksii fayyaa, Manajimantii fi Poolisii

### Information sheet and consent in Afan Oromo

#### Ibsa waa'ee qo'annaa

Akkam jirtu? Maqaan Koo \_\_\_\_\_ jedhama, Magaalaa Bishooftuu keessatti itti fayyadaminsi tajaajila fayyaa haadholee hangama akka ta'ee fi wantootni itti fayyadamummaa tajaajila kanaa waliin walqabatan maal akka ta'an addaan baasuuf qo'annaa adeemsisaa jirra. Qo'annaa kanaan maaltu akka haala itti fayyadaminsa tajaajila fayyaa haadholee wajjin wal qabatu addaan baasuuf adeemsisaa jirra. Ani warra daataa funaanan keessaa tokkodha. Gaaffilee tokko tokko waa'ee keessan isin gaafachuufan dhufe. Hirmaachu keessanif jecha midhan isin irratti dhufu tokkole hin jiru, deebii isin kennitaniif jecha faayidan isin irraa hir'atus hin jiru. Garuu, hirmaannan keessan rakkoo ittifayyadaminsa tajaajila fayyaa haadholee waliin walqabatu fooyyesuf waan gargaaruuf, baay'ee barbachisaadha. Deebiin isin kennitan fedhii keessanin ala eenyumattu dabarfamee hin himamu, akkasumas, maqaa keessan himuun isin hin barbaachisu. Itti dabalataanis qo'annaa kana irratti hirmaachuun dirqama miti, gaaffii barbaaddan deebisuu dhisuun ni danda'ama. Irratti hirmachuf fedhii qabduu?

Eeyyee \_\_\_\_\_ Lakki \_\_\_\_\_ → Galateeffachuun dubartii itti aantutti darbi



#### Unka walii galtee

Waa'een qo'annaa kanaa sirritti naaf galeera, kayyoo isaas hubadheera. Kanaaf qo'annaa kana keessatti hirmaachuuf fedha qabaachuu koo mallattoo koo tiin nan mirkaneessa.

Mallattoo nama hirmaatee \_\_\_\_\_ guyyaaa \_\_\_\_\_

Maqaaa nama raga funaanee \_\_\_\_\_ mallattoo \_\_\_\_\_



Universitii jimmaatti, koollejji saayinsii fayyaa, muummee Ikonomiksii fayyaa, Manajimantii fi Poolisii

Gaafannoo itti fayyadaminsa tajaajila fayyaa haadholee Magaalaa Bishooftuu keessatti argamanii fi wantoota itti fayyadaminsa tajaajila kanaa waliin walqabatan qo'achuuf qophaa'e

001. Koodii gaafannoo\_\_\_\_002.Naannoo jireenyaa 1- Magaalaa \_\_\_\_2- Baadiyyaa \_\_\_\_\_

003. Ganda\_\_\_\_\_ 004. Gooxii / maqaa beekamaa naannoo \_\_\_\_\_

005. Guyyaa gaafannoo \_\_\_\_\_/ji'a\_\_\_\_\_/ bara 2007

006. Maqaa nama ragaa funaanee \_\_\_\_\_

007. Maqaa supervaayizaraa \_\_\_\_\_

**Kutaa 1ffaa: Gaaffilee wa'ee haala jireenyaa fi amala hirmmaatootaa**

Lak.	Gaaffii	Deebii	koodii	Ce'i
101	Daa'ima kee isa xiqqaa yeroo deesse umuriin kee waggaa meeqa ture	Waggaa_____		
102	Sadarkaa barumsaa keessan?	1. Kan hin baranne 2. Dubbisuuf barreessuu qofa 3. Kutaa (1-8) 4. Kutaa (9-12) 5.Koollejji /Yunivarsiitii fi isaa ol		
103	Amantaan keessan maali?	1. Ortodoksii 2. Musiliima 3. Kaatolikii 4. Proteestaantii 5. Waaqeffataa 6.kanbiraa yoo ta'e ibsaa_____		
104	Haala gaa'ilaa (fuudhicha) keessanii?	1. Kan hin heerumiin 2. Kan heerumte 3. Kan wal hiikte 4. kan irraa du'e 5. Kan garagara jiraatan		
105	Sabni keessan maali?	1.Oromoo 2.Amhara 3. Guraagee		

		4. Wolaayittaa 5. Tigree 6. kan biraa ibsaa ____		
106	Hojiin idilee keessan maali?	1. Haadha manaa 2. Daldala 3. Qacaramtuu (kan mootummaa + NGO) 4. Hojii guyyaa 5. Qotee bulaa 6. Hojjettuu mana namaa 7. Barattuu 6. kan biraa yoo ta'e ibsaa _____		
107	Baay'inni maatii keessanii meeqa	_____		
108	Bakka jireenyaa	2. Magaalaa      2. Baadiyyaa		
109	Galiin ji'aa keessan qarshiidhaan hangami?(baadiyyaa yoota'e baayyina oomisha midhaan waggaatti argattan tilmama qarshiin)	Qarshii_____	<i>Baadiyya yoo ta'e tilmaama galii waggaa qarshiin 12'f hiruu</i>	
<b>Kutaa 2ffaa: gaaffilee haala ulfaa fi da'umsaa ilaachisee qophaa'e</b>				
201	Hanga ammaatti waliigalatti yeroo meeqa ulfoofta jirta? (yoo jira ta'e kan osoo hingahiin sirraa bahe fi kan du'ee dhalate dabalatee)	_____		
202	Da'ima kee isa calqabaa yeroo ulfoofta waggaa meeqa turte?	Waggaa_____		
203	Da'ima kee isa gara dhumaa yeroo ulfoofta waggaa meeqa turte?	waggaa_____		
204	Hanga ammaatti daa'ima fayyaa meeqa deessee jirta?	_____		

205	Hanga ammaatti ulfi osoo hingahiin sirraa bahee/addaan citee beekaa?	1. Eeyye	2. Lakki			
206	Hanga ammaatti daa'ima siharkaa deebi'e deessee beektaa?(si jalaa badee beekaa)	1 .Eeyye	2.Lakki			
207	Kanan dura ciniinsuun sirra turee sirakkisee beekaa?	1 .Eeyye	2. Lakki			
208	Kanaan dura opireshiniin deessee beektaa?	1 .Eeyye	2.Lakki			
209	Daa'imni kee kan gara dhumaa kun isa/ishee meeqaffaadha?	_____				
210	Ulfa isa gara dhumaa kana yeroo ulfooftetti barbaaddeet/karoorfatteet ulfooftee?	1 .Eeyye	2.Lakki			
<b>Kutaa 3ffaa: Gaffilee tajaajila da'umsaan duraa ,da'umsaa fi Da'umsaan boodaa ilaalchisee qophaa'e</b>						
301	Yeroo mucaa isa gara dhumaaf ulfa turtetti, tajaajila hordoffii ulfaa taasistee beektaa?	1 .Eeyye	2. Lakki	2 yoo ta'e gara	<b>308</b>	
302	Gaaffii 301'f eeyye yoo ta'e, eessatti hordoffii taasisaa turte?	1. Manatti 2. Buufata fayyaatti 3. Hospitaalatti 4. Kilinika dhuunfaatti 5. Kilinika NGO tti				
303	Gaaffii301'feeyye yoo ta'e, hordoffii ulfaa isa calqabaa yeroo taasiftu ulfa torban/ji'a meeqaatata?	Torban _____ Ji'a _____ Hin yaaddadhu _____				
304	Gaaffii 301'f eeyye yoo ta'e, hanga gaafa deessutti yeroo meeqa hordoffii ulfaa taasifte?	1. Yeroo tokko 2. Yeroo lama 3. Yeroo sadii 4. Yeroo afurii fi isaa ol				
305	Gaaffii 301'f eeyye yoo ta'e, hordoffii ulfaa eenyuti siif taasise?	1. Doktorii 2. Narsii				

		3. Narsii deessiftuu 4. Qondaalafayyaa 5. Ogeessota ekistenshin 6. Other specify_____		
306	Abbaan warraa kee hordoffii da'umsaa akka hordoftuuf siif eeyyama turee?	1. Eeyye                      2. Lakki		
307	Gaaffii 301'f eeyye yoo ta'e, hordoffii ulfaa akka taasiftu kan sigodhe sababa maal ture?	1. waan na dhukkubee tureef 2. Fayyummaa ulfichaa hordofuf 3. fayyaa kiyya hordofuf 4. Abban warraa kiyya deemi waan jedheef 5. tajaajilli dhaabbata fayyaa gaarii waan ta'eef 6. dhaabbanni fayyaa natti dhihoo waan ta'eef 7. kan biraa yoo ta'e ibsaa _____		
308	Gaaffii 301'f lakki yoo ta'e, hordoffii ulfaa akka hin taasifne kan sigodhe sababa maal ture?	1. Rakkoo fayaa waan hin qabneef 2. Hojiin natti baay'ata 3. Waan hin barbaachifneef 4. Faayidaa isaa waan hin beeknef 5. Ulficha waan hin barbaanneef 6. Abbaan warraa/maatiin koo waan didaniif 7. tajaajilli yeroo dheeraa waan tursuuf 8. Dhaabbanni fayyaa narraa fagoo waan ta'eef 9. kan biraa yoo ta'e ibsaa _____		
309	Mucaakee isa dhumaa eessatti deesse?	1. Manatti 2. Mana yaalaatti 3. Karaa gara mana yaala iiratti		
310	Gaaffii 309'f manatti yoo ta'e, eenyutu sideessise?	1. Haadhakoo 2. Haadha abbaa warraa koo 3. Dubartii leenjii fudhattee aadaan deessistu 4. Dubartii adaan deessistu 5. Dubartii ollaakoo jirtu 6. Kan biraa yoo ta'e ibsaa _____		

311	Daa'ima kee isa dhumaa manatti deesse yo ta'e,manatti da'uu maalif filatte?(deebii lamaa ol deebisuun ni danda'ama)	<ol style="list-style-type: none"> <li>1. Barbaachisaa mit /ciniinsuun salphaa ture</li> <li>2.Rakkoo geejjibaa /ambulansiin dhabe</li> <li>3. Mana yaalaatti da'uun waan barbaachisu nattii hin fakkaanne</li> <li>4. Manni yaalaa cufaa ture</li> <li>5. Tajaajilli mana yaalaa gahumsa hin qabu</li> <li>6. Dubartiin tajaajila kennitu waan hin jirreef</li> <li>7 Abbaawarraa/maatiin waan nadorkaniif</li> <li>8. Waan hin baratamneef</li> <li>9. Ulfi fayyaalessa ta'uu waan natti himameef</li> <li>10. Opireshinii waanan sodaadhuf</li> <li>11. Manatti dahee rakkoon waan nan quunnamnef</li> <li>12. kan biraa yoo ta'e ibsaa _____</li> </ol>		
312	Gaaffii 309'f mana yaalaatti yoo ta'e, Mana yaalaa kamitti deesse?	<ol style="list-style-type: none"> <li>1. Buufata fayyaa</li> <li>2. Hospitaala</li> <li>3. Kilinika Dhunfaa</li> <li>4. Kilinika NGO</li> <li>5. Keellaa fayyaatti</li> <li>6. kan biraa yoo ta'e ibsaa _____</li> </ol>		
313	Gaaffii 309'f Mana yaalaatti yoo ta'e, eenyutu si deessise?	<ol style="list-style-type: none"> <li>1. Doktorii</li> <li>2. Narsii deessistuu</li> <li>3. Narsii</li> <li>4. Qondaala fayyaa</li> <li>5. Ogeessa ekkisteenshinii fayyaa</li> <li>6. Hin yaaddadhu</li> </ol>		
314	Gaaffii 308'f mana yaalaatti yoo ta'e, mana yaalatti da'uu maalif filatte?	<ol style="list-style-type: none"> <li>1. Ciniinsuunwaan narakkiseef /narra tureef</li> <li>2. Tajaajilli da'umsaa tola waan ta'ef</li> <li>3. Manni yaalaa natti dhihoo waan ta'ef</li> <li>4. Tajaajila fooyya'aa waanan barbaadeef</li> <li>5. Abbaan waraa/maatiin waan naaf eeyyameef</li> <li>6. Raakkoo irraa bilisa waan na taasisuuf</li> <li>7. Mana yaalatti akkan da'u ogeessi waan natti himeef</li> <li>8. Yeroo darbe manatti da'ee rakkoon waan naquunnameef</li> </ol>		

		9. Kan biraa ibsaa _____		
315	Gaaffii 308'f mana yaalaatti yoo ta'e, mana yaalaa gahuuf tajaajila geejjibaa maal fayyadamtan?	<ol style="list-style-type: none"> <li>1. Lukaan</li> <li>2. Ambulaansii</li> <li>3. Konkolaataa gosa biraa</li> <li>4. Farda ykn gaangee</li> <li>5. Sireedhan baatanii na geessani</li> <li>6. Kan biro yoo ta'e ibsaa _____</li> </ol>		
316	Daa'ima kee isa dhumaa erga deessee booda,ogeessi fayyaa keef hordoffii siif taasise jiraa?	<ol style="list-style-type: none"> <li>1. Eeyye</li> <li>2. Lakki</li> </ol>		
317	Gaaffii 316'f eeyye yoo ta'e, tajaajila da'umsaan boodaa eessatti argatte?	<ol style="list-style-type: none"> <li>1. Manatti</li> <li>2. Buufata fayyaatti</li> <li>3. Hospitaalatti</li> <li>4. Kilinika dhuunfaatti</li> <li>5. Kilinika NGO tti</li> <li>6. kan biraa yoo ta'e ibsaa _____</li> </ol>		
318	Erga deessee sa'aatii/guyyaa meeqa keessatti tajaajila da'umsaan boodaa argatte?	<ol style="list-style-type: none"> <li>1. Sa'atii 4 keessatti</li> <li>2. Sa'atii 4-23 keessatti</li> <li>3. Guyyaa 1-2 keessatti</li> <li>4. Guyyaa 3-42 keessatti</li> <li>5. Guyyaa 42 booda</li> </ol>		
319	Yeroo sunittii tajaajila da'umsaan boodaa eenyutu siif taasise?	<ol style="list-style-type: none"> <li>1. Doktorii</li> <li>2. Narsii deessistuu</li> <li>3. Narsii</li> <li>4. Qondaala fayyaa</li> <li>5. Ogeessa ekkisteenshini fayyaa</li> <li>6. kan biro ibsaa _____</li> </ol>		
320	Tajaajila da'umsaan boodaa kan hin arganne ykn hin taasifne yoo ta'e sababni isaa maal?	<ol style="list-style-type: none"> <li>1. Barbaachisummaa isaa irratti hubannoo hin qabu</li> <li>2. Rakkoon fayyaa waan na hin quunnamneef</li> <li>3. Hojiin waan natti baay'atuuf</li> <li>4. Manni yaalaa narraa fagoo waan ta'eef</li> <li>5. Tajaajila argachuuf yeroo dheeraa waan fudhatuuf</li> <li>6. kan biroo ibsaa _____</li> </ol>		

321	Kanfaltii tajaajila fayyaa irratti eenyutu murteessa?	<ol style="list-style-type: none"> <li>1. Anuma mataa koo</li> <li>2. Abbaawarraa koo</li> <li>3. Lamaan keenya</li> <li>4. Haadha ykn maatiikoo</li> <li>5. Ogeessota fayyaa</li> <li>6. Firoottan koo</li> <li>7. kan biro ibsaa_____</li> </ol>		
322	Daa'ima kee dhumaa eessatti da'uu akka qabdu kan murteesseee eenyu ture?	<ol style="list-style-type: none"> <li>1. Anuma mataa koo</li> <li>2. Abbaawarraa koo</li> <li>3. Lamaan keenya</li> <li>4. Haadha ykn maatiikoo</li> <li>5. Ogeessota fayyaa</li> <li>6. Firoottan koo</li> <li>7. kan biro ibsaa_____</li> </ol>		

### Annex iii: Amharic version questionnaire

#### በጅማ ዩኒቨርሲቲ ጤና ሳይንስ ኮሌጅ የጤና እኮኖምኪስ፤ማናጅመንት ና ፖልስ ትምህርት ክፍል

ለተሳታፊዎች የሚነገር አጭር መረጃ ::

#### ትወዳዳሪ

ጤና ይስጥልኝ እኔ-----አባላለሁ::በጅማ ዩኒቨርሲቲ የጤና ሳይንስ ኮሌጅ የጥናት ቡድን አባል ነኝ::ጥናቱ በእናቶች ጤና አገልግሎት አጠቃቀምና ተዘማጅ ጉዳዮች ላይ በቢሾፍቱ ከተማ በሳይንሳዊ ዘዴ በተመረጡ ቀበሌዎችና እናቶች ላይ የሚሰራ ጥናት ነው::የዚህ ጥናት አላማ እናቶች የቅድመ ወልድ፤የወልድና የድህረ ወልድ አገልግሎቶችን ምንያህል እንደምጠቀሙ ለማወቅና ከእነዝህ አገልግሎቶች ጋር ተዛማጅ የሆኑ ጉዳዮችን በመለየት መፍትሄዎችን መጠቀም ነው::እኔ መረጃውን ከሚሰበስቡት ሰዎች መሃል አንዱ ስሆን የእናቶች ጤና አገልግሎቶችን በተመለከተ የተዘጋጁ ጥያቄዎችን እጠይቆታለሁ:: የእርስዎ እዚህ ጥናት ውስጥ መሳተፍ ከእናቶች ጤና አገልግሎት ጋር የተያያዙ ችግሮች እንድላሳሉ ስለምረዳ እንደሚተባበሩን ተስፋ አደርጋለሁ::

በጥናቱ ላይ የሚሠተፉት በፍላጎትዎ ሲሆን በሙሉም ሆነ በከፊል ያለመሳተፍ መብትዎን የተጠበቀ ነው::ጥናቱ ላይ ያለመሳተፍ ወሳኔዎች የተከበረ ከመሆኑም በላይ ምስጥርዎት እንደማይባከን እርግጠኛ ይሆኑ::ቃለመጠይቁ 20 ደቅቃዎችን ያህል የሚወስድ ሲሆን በማንኛውም ጊዜ ማቆም ይችላሉ::እስካሁን በተነጋገርንባቸው ጉዳዮች ላይ ያልገባዎት ና ግልጽ ያልሆነ ነገር ከለ መጠየቅ ይችላሉ:: አሁን ጥናቱ ላይ ለመሳተፍ ተስማምተዋልን;

አዎን----- አይደለም----- አይደለም ከሆኔ በማመስገን ወደ ቀጣዩ እናት ይሄዱ  
↓

#### የስምምነት ቅጽ

እኔ ስሜ ከዘህ በታች የተገለጸው ግለሰብ የጥናቱ አላማ በሰፊው የተነገረኝ እና የተረዳውት ስሆን፡ የሚሰጠው መረጃ ሚስጥራዊነቱ ፈጽሞ የተጠበቀ እንደሚሆን ስለተረዳውት በጥናቱ ውስጥ ለመሳተፍ በፍላጎት ተስማምቻለሁ::

መረጃውን የሰጠው ሰው ፍርማ-----

መረጃውን የሰበሰበው ሰው ስም----- ፍርማ-----

መረጃው የተሰበሰበበት ቀን-----



**በጅማ ዩኒቨርሲቲ ጤና ሳይንስ ኮሌጅ የኢኮኖሚክስ፣ ማናጅመንት ና ፖሊሲ ትምህርት ክፍል**

በቢሮቶ ከተማ ውስጥ የእናቶች ጤና አገልግሎት አጠቃቀምና ተጎዳኝ ነገሮች ዳሰሳ ጥናት የካቲት 2015

(ከተሰጡ አማራጮች በመምረጥ ወይም በባዶ ቦታ ላይ በመሙላት መጠይቁን ይሙሉት)

001. የመጠይቁ መለያ ቁጥር ..... 002. አካባቢ 1.....ከተማ 2.....ገጠር
003. ቀበሌ ..... 004. ጎጥ/ የአካባቢው ስም .....
005. መረጃው የተሰበሰበበት ቀን .....ወር .....2015
006. መረጃውን የሰበሰበው ሰው ስምና ፊርማ .....
007. የሱፓርቫይዘር ስምና ፊርማ -----

**ክፍል አንድ:-የተጠያቂው አጠቃላይ የማህበራዊ እና ኢኮኖሚያዊ መረጃ የተመለከተ መጠይቅ**

ተ.ቁ	ጥያቄዎች	አማራጭ መልሶች	ከድ	ወደ
101	የመጨረሻ ልጅዎትን ሲወልዱ እድሜዎት ስንት ነበር	-----አመት		
102	የትምህርት ደረጃ	1.ምንም ያልተማረ 2.ማንበብ እና መጻፍ ብቻ የሚችል 3. አንደኛ ደረጃ (1-8) 4. ሁለተኛ ደረጃ (9-12) 5. ኮሌጅ ወይም ዩኒቨርሲቲ ና ከዛበላይ		
103	የሐይማኖት ሁኔታ	1.አርቶዶክስ 2.መስሊም 3. ካቶሊክ 4.ፕሮታስታንት 5. ዋቁፋታ 6.ሌላ(ይጠቀስ).....		
104	የጋብቻ ሁኔታ	1. ያላገባች 2. ያገባች 3. አግብታ የፈታች 4. ባሏ የሞተባት 5. አግብታ ተለያይተው የሚኖሩ		
105	ከየትኛው ብሄር ይመደባሉ?	1.አሮሞ 2.አማራ 3.ጉራጌ 4.ወላይታ 5. ትግሬ 6.ሌላ (ይጠቀስ).....		
106	የመጨረሻ ልጅዎትን ሲወልዱ የሰራ ድርሻዎ ምንድን ነበር?	1.የቤት አመቤት 2.ነጋዴ 3.ተቀጣሪ (የመንግስት/ኤንጂኔር) 4. የቀን ሰራተኛ 5.ግብርና 6. የሰው ቤት ሰራተኛ 7. ተማሪ 8. ሌላ ካለ ይጠቀስ .....		

107	የቤተሰብ ብዛት(በቁጥር)	.....		
108	የመኖሪያ አካባቢ	1. ከተማ 2. ገጠር		
109	አማካይ የወር ገቢ በብር ሲሰላ ምን ያህል ይሆናል ( ለገጠር ነዋሪዎች የአመት ገቢ በምታመርቱት እህል ሲሰላ)	..... ብር	ለገጠርነዋሪዎች የአመት ገቢ በብር ተሰልፎ ለ 12 ወር በ ማካፈል	

**ክፍል ሁለት የእርግዝናና የወሊድ ሁኔታ በተመለከተ መጠይቅ**

ተ.ቁ	ጥያቄዎች	መልሶች	ኮድ	ወደ
201	በአጠቃላይ በእድሜዎ ለምን ያህል ጊዜ ነፍሰጡር ሆነው ያውቃሉ(ለምሳሌ ካለ ውርጃ፤ ሞቶ የተወለደና የአሁኑን እርግዝና ጨምሮ)	-----		
202	በመጀመሪያ እርግዝናዎ እድሜዎ ስንት ነበር?	.....		
203	በመጨረሻው እርግዝናዎ ወቅት እድሜዎ ስንት ነበር?	.....		
204	በአጠቃላይ በሕይወት የተወለዱ ስንት ልጆች አሉዎት?	.....		
205	በእድሜዎ ውርጃ አጋጥሞዎት ያውቃል?	1. አዎ 2. አይደለም		
206	በእድሜዎ በህይወት ያልተወለደ ልጅ አጋጥሞዎት ያውቃል?	1.አዎ 2. አይደለም		
207	በእድሜዎ ምጥ ቆይቶቦት ያውቃል	1.አዎ 2. አይደለም		
208	በእድሜዎ በቀዶ ጥገና ወልደው ያውቃሉ	1.አዎ 2. አይደለም		
209	በመጨረሻ የተወለደው/ችው ልጅ ስንተኛ ልጅዎ ነው/ነች	1.1ኛ 2. 2ኛ 3. 3ኛ 4. 4ኛ 5. 5ኛ ና ከዛ በላይ		
210	የመጨረሻ እርግዝናዎ የታቀደ ነበረ	1. አዎ 2. አይደለም		

**ክፍል ሶስት :ባለፈው አንድ አመት ውስጥ የቅድመ ወሊድ ፤የወሊድ እና የድህረ ወሊድ አገልግሎቶች መጠቀምን በተመለከተ መጠይቅ**

ተ.ቁ	ጥያቄዎች	መልሶች	ኮድ	ወደ
301	በመጨረሻው እርግዝናዎ ወቅት የነፍሰጡር ምርመራ አድርገው ያውቃሉ	1. አዎ 2. አይደለም		2 ከሆነ ወደ 308
302	የነፍሰጡር ምርመራ ካደረጉ ምርመራውን ያደረጉት የት ነበር	1. በራሴ ቤት 2. በጤና ጣቢያ 3. በሆስፒታል 4. በግል ክሊኒክ 5. በኤንጂኦ ክሊኒክ		
303	የመጀመሪያውን የነፍሰጡር ምርመራዎን የደረጉት በስንተኛው የእርግዝናዎ ሳምንት/ወርላይ ነበር	.....ወር .....ሳምንት		
304	እስኪውልዱ ድረስ ስንት ጊዜ ክትትል አድርገዋል	1. አንድ ጊዜ 2. ሁለት ጊዜ 3. ሶስት ጊዜ 4. አራትና ከዛ በላይ		
305	የነፍሰጡር ምርመራ ካደረጉ ምርመራውን ያደረገላዎት ባለሙያ ማን ነው	1. ዶክተር/ሀኪም 2. ነርስ 3. አዋለጅ ነርስ		

		<ul style="list-style-type: none"> <li>4. ጤና መኮንን</li> <li>5. ጤና ኤክስፖዥኒን</li> <li>6. ሌላ ካለ ይጠቀስ .....</li> </ul>		
306	የትደር አጋርዎት የቅደመ ወልድ አገልግሎት ክትትል እንድአደረገዎት ይፈቅድለዎታል?	<ul style="list-style-type: none"> <li>1. አዎ</li> <li>2. አይደለም</li> </ul>		
307	የእርግዝናውን ክትትል ያደረጉበት ዋናው ምክንያት ምንድነው?	<ul style="list-style-type: none"> <li>1. አሞኝ ስለነበር</li> <li>2. የጨቅላውን ጤንነት ሁኔታ ለማወቅ</li> <li>3. የጤንነቴን ሁኔታ ለማወቅ</li> <li>4. ባለቤቴ ክትትል እንዳደርግ ስለበረታታኝ</li> <li>5. የጤና ተቋሙ ቅርብ ስለ ሆነ</li> <li>6. ሌላ ካለ ይጠቀስ.....</li> </ul>		
308	በመጨረሻ እርግዝናዎ ወቅት የነፍሰጡርምርመራ/ክትትል ካላረጉ ዋናው ምክንያት ምን ነበረ	<ul style="list-style-type: none"> <li>1. የጤና ችግር ስላልነበረኝ</li> <li>2. ስራ ስለበዛብኝ</li> <li>3. አስፈላጊ ስላልሆነ</li> <li>4. ጥቅሙ ስለማላውቀው</li> <li>5. እርግዝናዬ የታቀደ ስላልሆነ</li> <li>6. ባለቤቴ/ቤተሰቦቼ ስላልፈቀዱልኝ</li> <li>7. አገልግሎት ለማግኘት ረዥም ሰዓት ስለምወሰድ</li> <li>8. ጤና ማእከል ስለሚርቀኝ</li> <li>9. ሌላ ካለ ይጠቀስ...</li> </ul>		
309	የመጨረሻ ልጅዎን የተነበር የወለዱት	<ul style="list-style-type: none"> <li>1. በቤት ውስጥ</li> <li>2. በጤና ማእከል ውስጥ</li> <li>3. መንገድ ላይ</li> </ul>		2 ከሆነ ወደ 312
310	የመጨረሻው ወሊድዎ በቤት ውስጥ ከሆነ ያዋለድዎት ማን ነበረ	<ul style="list-style-type: none"> <li>1. እናቴ</li> <li>2. የባለቤቴ እናት</li> <li>3. የሰለጠነች የልምድ አዋላጅ</li> <li>4. ያልሰለጠነች የልምድ አዋላጅ</li> <li>5. የጎረቤት ሴቶች</li> <li>6. ሌላ ካለ ይጠቀስ.....</li> </ul>		
311	ለምን ነበረ ቤት ለመውለድ የመረጡት (ከአንድ በላይ መልስ ይቻላል)	<ul style="list-style-type: none"> <li>1. አስፈላጊ ስላልነበረ/የምጥ ጊዜ አጭር ስለነበረ</li> <li>2. ለመጓጓዣ የትራንስፖርት/አምቡላንስ/ ችግር</li> <li>3. በጤናተቋምመውለድ አስፈላጊ መሆኑን ስላላወቁት</li> <li>4. ጤና ተቋማት ሁል ጊዜ ክፍት ስለማይሆኑ</li> <li>5. የጤናተቋማት አገልግሎት ጥረት አነስተኛ ስለሆነ</li> <li>6. ሴት ባለሙያዎች ስለማይኖሩ</li> <li>7. ባለቤቴ/ቤተሰቦቼ ጤና ተቋም እንድሄድ ስላልፈቀዱልኝ</li> <li>8. ቤት መውለድ የተለመደ ስለሆነ</li> <li>9. እርግዝናዬ ችግር እንደሌለበት ስለተነገረኝ</li> <li>10. በቀዶ ጥገና መውለድ ስለምፈራ ነው ::</li> <li>11. ከአሁን በፊት ቤት ወልጄ ችግር ስላልገጠመኝነው</li> <li>12. ሌላ ካለ ይጠቀስ.....</li> </ul>		
312	በጤና ተቋም ወስጥ የወለዱ ከሆነ በየትኛው ጤና ተቋም	<ul style="list-style-type: none"> <li>1. በጤና ጣቢያ</li> <li>2. በሆስፒታል</li> <li>3. በግል ክሊኒክ</li> <li>4. በኤንጂኦ ክሊኒክ</li> <li>5. ሌላ ካለ ይጠቀስ .....</li> </ul>		

313	በጤና ማእከል ውስጥ ወሊድዎትን ያገዝዎት/ያዋለድዎት ማን ነበር	1. ዶክተር/ሀኪም 2. አዋላጅ ነርስ 3. ነርስ 4. ጤና መኮንን 5. የጤና አክሱቲቫንሽን ሰራተኛ 6. አላስታውስም		
314	በጤና ማእከል ውስጥ የወለዱበት ዋነኛ ምክንያት ምንድነው	1. የወሊድ ችግር ስላጋጠመኝ 2. አገልግሎቱ በነፃ ስለሚሰጥ 3. ከምኖርበት ቦታ ቅርብ ስለሆነ 4. የተሻለ እንክብካቤ ለማግኘት 5. ባለቤቱ/ቤተሰቦቼ ስለፈቀዱልኝ 6. ከዚህ በፊት ጤና ማእከል ወልጄ ጥሩ ነገር ስላጋጠመኝ 7. ጤና ተቋም እንደወልድ ስለተነገረኝ 8. ከዚህ በፊት ቤት ወልጄ ችግር ስላጋጠመኝ 9. ሌላ ምክንያት ካለዎት ይጥቀሱ.....		
315	በጤና ተቋም ለመውለድ ምንደረደት ትራንስፖርት ተጠቅመው ነበር	1. በግር 2. አንቡላንስ 3. በሌላ ተሽከርካሪ 4. በፈረስ/በቅሎ 5. በቃሬዛ 6. ሌላ (ይግለፅ) _____		
316	ከመጨረሻው ወሊድዎት በኋላ ለጤናዎ ክትትል ተደርጎ ነበረ	1. አዎ 2. አይደለም		2 ከሆነ ወደ 319
317	የድህረ ወሊድ ክትትሉን ያደረጉት/ ያገኙት የት ነበረ	1. በቤት ውስጥ 2. በጤና ጣቢያ 3. በሆስፒታል 4. በግል ክሊኒክ 5. በኤንጂኦ ክሊኒክ 6. ሌላ ካለ ይጠቀስ.....		
318	የድህረ ወሊድ ክትትሉን ያገኙት ከወለዱ በኋላ በስንት ሰዓት/ቀን ውስጥ ነበረ	1. በ4 ሰዓት ውስጥ 2. ከ4-23 ሰዓት ውስጥ 3. ከ1-2 ቀን ውስጥ 4. ከ 3-42 ቀን ውስጥ 5. ከ 42 ቀን በኋላ		
319	በዚያን ጊዜ የድህረ ወሊድ ክትትል ያደረገልዎት ማን ነበረ	1. ዶክተር 2. አዋላጅ 3. ነርስ 4. ጤና መኮንን 5. የጤና አክሱቲቫንሽን ሰራተኞች 6. ሌላ ካለ ይጠቀስ .....		
320	የድህረወሊድ ክትትል አገልግሎት ካላደረጉ/ካላገኙ ዋነኛው ምክንያትዎ ምን ነበረ.	1. በአስፈላጊነቱ ላይ ግንዛቤ ስላልነበረኝ 2. የጤና ችግር ስላልገጠመኝ 3. ስራ ስለሚበዛብኝ ነው 4. የጤና ተቋም ስለሚርቀኝ ነው 5. አገልግሎት ለማግኘት ረጅም ሰዓት ስለሚወስድብኝ ነው 6. ሌላ ካለ ይጠቀስ-----		

321	በቤትዎ የህክምና ወጪ/ክፍያ ላይ የሚወስነው ማን ነው	1. እኔ እራሴ 2. ባለቤቴ 3. ሁለታችንም 4. እናቴ/ቤተሰብ 5. ዘመዶቼ 6. ሌላካለ ይጠቀስ.....		
322	በወሊድ ወቅት የት መውለድ እንደሌለዎት ውሳኔዎን የሚሰጠዉ ማን ነው	1. እኔዉ ራሴ 2. ባለቤቴ 3. ሁለታችንም 4. እናቴ/ቤተሰብ 5. ዘመዶቼ 6. ሌላ ካለ ይጠቀስ.....		