



ADDIS ABABA UNIVERSITY

COLLEGE OF DEVELOPMENT STUDIES

CENTER FOR POPULATION STUDY

**DEMOGRAPHIC AND SOCIO-ECONOMIC FACTORS
AFFECTING MATERNAL HEALTH SERVICE UTILIZATION
AMONG REPRODUCTIVE AGED WOMEN IN ADDIS KETEMA
SUB-CITY, ADDIS ABABA, ETHIOPIA**

**MSC THESIS
BY
BELETE TEKOLA
GSE/9636/11**

**AUGUST 2021
ADDIS ABABA, ETHIOPIA**



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ADDIS ABABA, ETHIOPIA**

BY:-BELETE TEKOLA

ADVISOR: - MR. TARIKU DEJENE (Assi Prof)

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POPULATION STUDIES IN REPRODUCTIVE HEALTH**

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ADDIS ABABA, ETHIOPIA

DECLARATION

I hereby declare that this MSc proposal on maternal health service utilization in Addis Ketema sub-city is my original work and has not been presented for a degree in any other university, and all sources of material used for this thesis on maternal health service utilization have been duly acknowledged.

Name: Belete Tekola

Signature: _____

Date: _____

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SCHOOL OF DEVELOPMENTAL STUDIES
EXAMINERS' THESIS APPROVAL SHEET

This is to certify that the thesis prepared by Belete Tekola, entitled: socio-economic and demographic factors affecting maternal health service utilization among reproductive aged women in Addis Ketema sub-city, Addis Ababa, Ethiopia: and submitted in partial fulfilment of the requirements for the degree of master of science (population study in reproductive health) complies with the regulations of the university and meets the accepted standards with respect to originality and quality.

Signed by the Examining committee

External Examiner _____ Signature _____ Date _____

Internal Examiner _____ Signature _____ Date _____

Principal advisor _____ Signature _____ Date _____

Chair of Department or Graduate program coordinator

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ABBREVIATION

ANC- Ante Natal Care

AOR- Adjusted Odds Ratio

CSA- Central Statistical Agency

EDHS- Ethiopian Demographic Health Survey

FGD- Focus Group Discussion

UHEP- Urban Health Extension Program

HEWs-Health Extension Workers

HSDP-Health Sector Development Program

IDI – In-Depth Interview

MDG- Millennium Development Goal

MDSR-Maternal Death Surveillance Report

MHS- Maternal Health Service

MMR- Maternal Mortality Ratio

OR- Odds Ratio

PHC- Primary Health Care

PNC- Post Natal Care

SDG- Sustainable Development Goal

SSA- Sub-Saharan Africa

UNDP - United Nation Development Program

UNICEF- United Nation Children’s Fund

WDA/G- Women Development Army/Group

WHO- World Health Organization

ABSTRACT

Maternal mortality is unacceptably high, about 295,000 women died during and following pregnancy and child birth in 2017. The vast majority of this death (94%) occurred in low-resource settings and most could have been prevented. The purpose of this study was to examine demographic and socio-economic factors that affect the utilization of maternal health care service of reproductive aged women lived in all weredas of Addis Ketema sub city. The study addresses three objective and try to answer three questions. A mixed based study design method was used to address those objectives and to answer the research questions. The study population comprises of 8145 childbearing age women lived in the sub city at least for six months having less than three years of age children and total of 343 study participants were selected by systematically random sampling method for quantitative study. Three methods of data collection were used those are quantitative questionnaire, professional focus group dissolution and in-depth interview selected from quantitative study participant selected based on a list of selection criteria. The data analyzed by frequency, percentage, binary regression and multiple logistic regression by using SPSS 23 processing software. Findings revealed that 207 (60.3%) of the respondents were between the ages of 20-34 years, 110 (32.1%) had attained secondary level education. Significant proportions 162 (47.4%) were unemployed or house wives, while among the husband's occupation only 23 (6.7%) were unemployed. Based on the monthly income, more than half (60.9%) had monthly per capita income of less than the middle level or average income. Use of maternal health services revealed 322 (93.9%) of respondents were use at least one skilled antenatal care service, among those had at least one antenatal care service the majority 193 (60%) were registered at second trimester and almost half of the participant 164 (50.9%) made at least four antenatal care visits. According to place of delivery 305 (88.9%) were delivered in modern health institution. The strength of association was checked by adjusted odds ratio and by level of significance (p value). It was concluded that utilization was high though very few registered at first trimester and considerable high proportion of women delivered at home compared with the last EDHS report of Addis Ababa. It was recommended that determinants of MHS utilization are multi-sectorial approach to tackle it. Key words include maternal health service utilization, antenatal care, skilled delivery attendance, postnatal care.

CHAPTER ONE

1: - INTRODUCTION

1.1. BACKGROUND OF THE STUDY

Every day in 2017, approximately 810 women died from preventable causes related to pregnancy and child birth. Between 2000 and 2017, the maternal mortality ratio dropped by about 38% worldwide, but 94% of all maternal death occur in low- and middle-income countries. (WHO, 2020). Maternal mortality is unacceptably high, about 295,000 women died during and following pregnancy and child birth in 2017. The vast majority of this death (94%) occurred in low-resource settings and most could have been prevented. The high number of maternal deaths in some areas of the world reflects inequalities, in access to quality health services and highlights the gap between rich and poor. The MMR in low income countries in 2017 is 462 per 100000 live births versus 11 per 100000 live births in high income countries. (WHO, 2020).

Sub-Saharan Africa and southern Asia accounted for approximately 86% (254,000) of the estimated global maternal deaths in 2017. Sub-Saharan Africa alone accounted for roughly Two-third (196,000) of maternal deaths', while southern Asia accounted for nearly one-fifth (58,000). (WHO, 2020)

Maternal mortality and morbidity rate in Ethiopia are among the highest in the world. According to the 2019 mini Ethiopia demographic health survey (EDHS) showed that the maternal mortality ratio was death 412 per 100,000 live births. (EPHI & ICF, 2019). In Ethiopia, one explanation for poor health outcome among women is nonuse of modern health care services by a great proportion of women in the country. According to the 2016 EDHS report, the varied coverage of antenatal care was 62 % this varied from 90.1 % for women residing in urban areas to 58.3 % of women in rural areas. The Ethiopia 2019 mini EDHS report shows that only 43% women had full antenatal care visit, and 74% of women had received any from skilled provider in their last pregnancy from 5 years prior to the survey, and among those women participate only 48 % of women get professional delivery service in the health facilities. (ECSA & ICF, 2017)

The Ethiopian health sector development program (HSDP) that has been implemented in the last 20 year gives attention to attain universal access primary health care (PHC). This includes maternal health services for the whole population through the initiation of the health

extension program (HEP). HEPs main objective is to ensure access to promote health service to house visits are conducted by health extension worker (HEWs) to trace pregnant women for ANC follow- up and to advise them to visit a health facility for institutional deliveries. To complement and support the service of HEWs, the government has introduced the women development army (WDA). It is a structure at the community level, comprised of one to five networks of women. (Alematchu et al., 2020).

Despite the expansion of primary health care delivery through PHCUs, the use of maternal health services remains low, which contributes to the country's high MMR. In 2016, 62% of mothers made at least one ANC visit during their last pregnancy, 26% gave birth by a skilled provider and 17% received PNC within the first 2 days after delivery. (ECSA & ICF, 2017). Central Statistical Agency Ethiopia and Ministry of health: states that "Ethiopia mini demographic and health survey 2014 and HSDP-IV Visioning document plan to achieved Reduce MMR to 267/105LBs, 101.4/105LBs and 45.5/105LBs by 2015, 2025 and 2035 respectively, Increase skilled birth attendance to 62%, 77%, 95.1% by 2015,2025 and 2035 respectively, and Increase ANC coverage (at least 4 visits) to 77%,86% and 87% by 2015,2025 and 2035 respectively." (ECSA & MOH, 2014).

1.2. STATEMENT OF THE PROBLEM

Maternal and neonatal mortality

Maternal mortality is unacceptably high, about 295,000 women died during and following pregnancy and child birth in 2017. The vast majority of these deaths (94%) occurred in lower resource settings and most could be prevented. Every day in 2017, globally 810 women died from preventable cause's related pregnancy and child birth Sub-Saharan Africa and southern Asia accounted for approximately 86% (254000) of the estimated global maternal death in 2017. (WHO, 2019).

Sub-Saharan Africa alone accounted for roughly two thirds (196,000) of maternal deaths. In 2017, the fragile state index, 15 countries were considered to be very high alert being a fragile state (south Sudan, Somalia, central Africa Republic, Yemen, Syria, Sudan, Congo, chad, Afghanistan, Iraq, Haiti, guinea, Zimbabwe, Nigeria and Ethiopia) and these 15 countries had MMRs in 2017 range from 31 (Syria) to 1150 (south Sudan) per 100000 live births. A new born, or neonate, is a child under 28 days of age , during these first 28 days of life; child is the highest risk of dying, globally 2.5 million children died in the first month of life in 2018, an estimate that may be significantly higher considering the likelihood of under reporting, especially in low-income and ,idle income countries. There are approximately 7000 newborn deaths every day in 2018. On the same year in Africa region, 1.12 million neonate deaths occur annually. (WHO, 2019)

Among the Sustainable Development Goal (SDG) region, Sub-Saharan Africa had the highest neonatal mortality rate in 2018 at 28 deaths per 1000 live births. A child born in Sub-Saharan Africa is 10 times more likely to die in the first month than a child born in a high-income county (UNICEF, 2019).

According to 2016 EDHS, In Ethiopia the pregnancy related mortality ratio was 412 maternal deaths per 100,000 live births for the 7 years related death (a death related to pregnancy or child birth) is 21 in 1000 women in Ethiopia. (ECSA & ICF, 2017).

The 2016 EDHS results show that the neonatal, infant and under five mortality rates for the 5 years before the survey are 29, 48 and 67 deaths per 1000 live births, respectively. In other words, 1 in every 35 children dies with in the first month, 1 in every 21 children dies before celebrating the first birth day, and 1 in every 15 children dies before celebrating the fifth birth day, (ECSA & ICF, 2017)

Maternal health service utilization

Ante natal care utilization

Globally, while 87 percent of women access antenatal cares with skilled health personnel at least once, three in five (60%) receive at least four antenatal care visits. In regions with the highest rates of maternal mortality; such as western and central Africa and southern Asia, even fewer women received at least four antenatal care visits (53% and 49% respectively) but women received at least once on these regions are higher (78% and 80% respectively) this shows there are higher dropout rate or women do not received full ANC follow-up due to different reason. (UNICEF, 2020)

The 2016 EDHS show that 62% of women who had a live birth 5 years before the survey received ANC from a skilled provider at least once for their last birth but only 32 of women received a recommended four or more ANC visits with a skilled health personnel. From those women's only 20% of women in 2016 EDHS start their ANC visit with in the first trimester but 80% are not start their antenatal care with in a recommended time. (ECSA & ICF, 2017)

In Addis Ababa state administration, the highest from the country among women in reproductive age group in their last birth 5 year prior to the survey 96.8% of women received antenatal visit at least once according to 2016 EDHS. (ECSA & ICF, 2017)

Delivery service utilization

In 2019 globally, 78% of pregnant women held their deliveries in health facilities, the highest in Western Europe (92%) over 9 in 10 births occurred in health facilities. In contrast, in west and central Africa and eastern and southern Africa where the burden of maternal and newborn death is highest, 54% and 60% of births respectively were delivered in health facility, with an urban – rural gap 20 percentage points (75% versus 55%) and a staggering 50 percentage point gap between women in the richest (88%) and poorest (38%) wealth quintile. (UNICEF, 2020)

In Ethiopia, based on 2016 EDHS deliveries occurs in a health facility among all live birth in the 5 year before the survey are 26 % but home deliveries are 76%. This shows in Ethiopia more than 7 in 10 children deliver at home out of health institution. In Addis Ababa just like antenatal care utilization delivery service utilization rate was the highest from the rest of the countries which is 97% of women get institutional delivery service. (ECSA & ICF, 2017).

Postnatal care service

Large proportion of maternal and neonatal death occur during the first 24 hours after deliveries, for both the mother and infant, prompt postnatal care is important for threatening complications that arise from delivery and providing the mother with important information on caring for herself and her baby. (UNICEF, 2019) The 2016 EDHS found that among women age 15-49 giving birth in the 2 year before the survey, 17 % had postnatal check during the first 2 days after birth, four in five women (81%) did not receive postnatal service within 2 days after birth. (ECSA & ICF, 2017)

In Addis Ababa just like antenatal care utilization and delivery service utilization rate postnatal service utilization was the highest from the rest of the countries which is 55.4% of women get post-natal check-up within 2 days after delivered the child but 44.6% are not. (ECSA & ICF, 2017)

1.3. SCOPE OF THE STUDY

This study is limited to women of child bearing age (15-49 years) resident in Addis Ketema sub city. The variable of interest include demographic characteristics and socio economic characteristics that affect utilization of maternal health service; level of utilization of maternal health services; establish statistical association between demographic variable and use of maternal health services and establish statistical association between socio-economic variable and use of maternal health services.

This study was not covering other problems that are not considered as one of the community related factors on maternal health service utilization. Each of the respondents is given the same questions to answer. The result of the study will be applicable only to the respondents of the study and will not be used as a measure to the utilization of maternal health service utilization to the study other than related to the community.

1.4. THE RESEARCH QUESTION

The research tries to answer the following questions related to utilization of maternal health service's among mothers in Addis Keteme sub city, Addis Ababa, Ethiopia

1. What is the level of utilization of ANC Delivery and PNC service in Addis Ketema sub city, Addis Ababa, Ethiopia?
2. What are the demographic factors that affect the reproductive aged women those have less than 3 years of age children to utilize of maternal health service on Addis Ketema sub city Addis Ababa, Ethiopia?
3. What are the socio-economic factors that affect reproductive aged women those have less than 3 years of age children from the utilization of maternal health service on Addis Ketema sub city Addis Ababa, Ethiopia?

Understanding the factors that affect the utilization of these maternal health services can help design strategies and develop policies toward improvement of service utilization in the country; and thereby, will aid in decreasing maternal and also child mortality.

1.5. OBJECTIVE

1.5.1. General objective

To determine the prevalence and demographic and socio-economic factors affecting maternal health service utilization among women of childbearing age those have under three years of children in Addis Ketema sub city, Addis Ababa, Ethiopia, 2021.

1.5.2. Specific objective

- Determine the level of utilization of maternal health services among women of child bearing age in the study area.
- Determine demographic characteristics of respondents that affect the utilization of maternal health service among women in in the study area.
- Determine socio-economic characteristics of respondents that affect the utilization of maternal health service among women in in the study area.

1.6. SIGNIFICANCE OF THE STUDY

This study may contribute the improvement of the quality of maternal health care service utilization by identify factor that either positively and negatively affect the utilization of maternal health service in Addis Ketema sub city, Addis Ababa, Ethiopia. Knowledge gain from the finding of the study can be compared to the last DHS report about Addis Ababa and Data produced from this study will be used to show this comparison and provide insight into the issue of furthering responsible environment practice in maternal health services. In addition, most of the study conducted in this research topic conducted by either qualitatively or qualitatively but this research will be conducted by both qualitatively and quantitatively due to someone can get in depth information about factor affecting maternal health service utilizations and its prevalence.

The 5-year report of the health office of Addis Ketema on maternal health care service utilization shows are different from the both EDHS 2016 AND 2019 MINI EDHS report to check whether or not report gap of recall bias this research will be much important

1.7. OPERATIONAL DEFINITION

- ✓ **Antenatal care** is the care that women receive during pregnancy that helps to ensure healthy outcome of women and newborns. In this study, Antenatal care refers to the number of visits made by a mother during her last birth.
- ✓ **Use of skilled Delivery attendants;** - delivery care provided by skilled health professionals during respondent's recent birth.
- ✓ **Post-natal care:** care provided to women with 7 days after her last delivery where ever the place of delivery

CHAPTER TWO

2. LITERATURE REVIEW

This chapter presents a review of various literatures on factors affecting maternal health care service utilization of various women under reproductive age group, factors including demographic, socioeconomic and perceived need-based factors. Relevant studies were conducted on maternal health service utilization on different part of Ethiopia both rural and urban settings and also other part of developing countries, which were reviewed from different journals, findings from published and unpublished papers from university library as well as internet materials under those topics. The review was presented under the headings conceptual review of maternal health and maternal health services, review of literature on maternal health care services, on antenatal care and delivery service utilization and on postnatal care utilization and conceptual framework to conduct the studies was covered.

2.1.CONCEPTUAL REVIEW

2.1.1. CONCEPT OF MATERNAL HEALTH

Maternal health is the health of women during pregnancy, child birth and the postpartum period. it encompasses the health care dimension of family planning, preconception, prenatal and postnatal care in order to ensure a positive and fulfilling experience, in most case, and reduce maternal morbidity, in other case, maternal health revolves around the health and wellness of women, particularly when they are pregnant, at the time they give birth and during child raising .(UNFPA, 2004).

WHO has indicated that even though motherhood has been considered as a fulfilling natural experience that is emotional to mother, a high percentage of mother go through a lot of challenges where they suffer health wise and sometimes even die (WHO, 2000). Although important progress has been made in the last two decades, about 295,000 women died during and following pregnancy and child birth in 2017. This number is unacceptably high. Most maternal death is preventable with timely management by a skilled health professional working a supportive environment because of every pregnancy and birth is unique. (WHO, 2000).

2.1.2. CONCEPT OF MATERNAL HEALTH CARE SERVICES

Maternal health care services utilization the provision of special care for pregnant women during pregnancy and delivery through public health services was a relatively late development in modern obstetrics. It was until late 1930s that United Kingdom of Great Britain and Northern Ireland authorities decide that all women should be offered regular check-ups during pregnancy as an integral part of maternity care. During the second half of the 20th century, international awareness grew of the dimensions of the maternal mortality; the national governments collaborated with technical assistance and donor agencies to ensure that pregnant women in the developing countries had access to maternity care. However, this did not completely eradicate maternal deaths due to other factors that are not within the scope of this study (Amadi, 2015).

Antenatal care (ANC) is the routine health control of presumed healthy pregnant women without symptoms (screening), in order to diagnose diseases or complicating obstetric conditions without symptoms, and to provide information about lifestyle, pregnancy and delivery. (Zeine et al, 2010).

Antenatal care, also known as prenatal care, is a type of preventive healthcare. It is provided in the form of medical checkups, consisting of recommendations on managing a healthy lifestyle and the provision of medical information such as maternal physiological changes in pregnancy, biological changes, and prenatal nutrition including prenatal vitamins, which prevents potential health problems throughout the course of the pregnancy and promotes the mother and child's health alike. The availability of routine prenatal care, including prenatal screening and diagnosis, has played a part in reducing the frequency of maternal death, miscarriages, birth defects, low birth weight, neonatal infections and other preventable health problems. (Njoku et al, 2012).

Skilled birth attendant (SBA) as defined by WHO, is an accredited health professional such as midwife, doctor or nurses who has been educated and trained to proficiency in the skills needed to manage women during normal (uncomplicated) childbirth and the immediate postnatal period as well as in the identification, management or referral of complications in women and newborns (WHO, 2019)

Delivery care: Every delivery may have complications; therefore, emphasis should be towards the use of skilled and trained delivery care providers and ensuring that all women

have access to life-saving emergency interventions at the time of labor and delivery. In many countries, deliveries occur at home attended by traditional birth attendants (TBAs). Previously, there were extensive efforts and funds expended toward upgrading the skills of TBAs, but safe motherhood program initiatives have shown that in almost all cases, the level of skill among ‘skilled traditional birth attendants’ is lower than is considered ‘safe’ for safe motherhood. In-service training for TBAs cannot improve their skills to the level of competency needed. (Godia,. P. n.d)

Postnatal care (PNC): There is an increasing emphasis on ensuring that women receive PNC within 48 hours of delivery for early diagnosis of postpartum complications. PNC also provides an opportunity to counsel the new mother on family planning and on caring for herself and her newborn, as well as to assess the newborn for any problems. (Godia, P. n.d)

The postnatal period – defined here as the first six weeks after birth – is critical to the health and survival of a mother and her newborn. The most vulnerable time for both is during the hours and days after birth. Lack of care in this time period may result in death or disability as well as missed opportunities to promote healthy behaviors, affecting women, newborns, and children. (Zeine et al, 2010).

2.2.LITERATURES ON MATERNAL HEALTH CARE UTILIZATION

The study conducted in Tigray on utilization and factor associated with antenatal care, delivery and post-natal care services, the finding shows that from the total respondents, the proportion of women who visited health facilities for antenatal care four or more times was 58.2%, those who chose institutional delivery was 87.9%, and those who received post-natal care within 42 days of birth at least once was 40.3%. However, a small proportion of (2.1%) of women visited health facilities within 2 days for PNC service at the health facility. The main reasons are place of residence (urban versus rural) was the most significant predictor of ANC services beyond four times. (Alemayew et al., 2020)

The cross-sectional study conducted on Holeta town focused on determinants of maternal health care utilization from 419 respondents, 87.1% had at least one antenatal care visit during their last pregnancy. Nearly 42% of the women made their first in their first trimester of pregnancy, while majority 54.5% of women had their first ANC visit in second trimester. Among those use antenatal service 33.7% had less than 4 ANC visit in their last pregnancy. On this study, on the concern of the place of delivery, 38.4 % of participates deliveries took

place at home, among those deliver at home (161), 97(60.2%) reported that they prefer deliver at home where close relative are nearby than health institutions, 20.5% reported that due to dislike mistreatment of health workers, 19.3% reported they have more trust on TBAs than health professionals. (Birmeta et al., 2013)

The study conducted on determinants of maternal health service based on 2011 EDHS report, 34% of women had ANC visits, 11.7% used skilled delivery attendants and 9.7 % of women had a postnatal checkup. Education of women, place of residence, ethnicity, parity women's autonomy and household wealth had significant association with the use of maternal health service. (15) Women who had complete higher education were more likely use ANC [AOR=3.8, 95% CI (1.8, 7.8)], skilled delivery attendance [AOR=3.4, 95% CI (2.0, 5.2)], women who have had ANC visits during the index pregnancy were more likely to use subsequently use skilled delivery attendants [AOR=1.3, 95% CI (1.1, 1.7)] and PNC [AOR=3.4, 95% CI (2.8, 4.1)]. Utilization of ANC, delivery and PNC service care is more among more autonomous women than those who spending controlled by other people. (Tarekegn et al., 2014)

There is no significant association between religion, and attendants and PNC service but there have significant association between religion of women and utilization of skilled delivery, mother education status, maternal status, maternal age and parity all shows significant association to all of the three indicators of maternal health services, and also work status of husband did not have significant association with the use of all the three maternal health services. (Tarekegn et al., 2014).

ON ANTENATAL AND DELIVERY SERVICE UTILIZATION

The community based cross-sectional study conducted in Tigray region the result shows that among 1113 women only 54% had received ANC service at health facilities at least once during their last pregnancy. The reason behind this for attending ANC were 'to know maternal health status'(60.3%), "because of sickness" (31%) and to know the status of pregnancy (26.4%).(16) On this study, among those who did not attend ANC , the most frequent mentioned reason were "not feeling sick" (32.7%), "lack of awareness about the benefit"(28.2%), "feeling shame"(16.7%), "work load" (13.4%), and "the proportion of women attend ANC service were differ by age level, marital status, and by other socio-economic status. (Gebrehiwot et al., 2014)

The community based cross sectional study conducted in Tigray region the result shows that women institutional delivery service utilization was very low, among 1113 participant only, 46 women (4.1%) gave birth at a health facility, and 95.9% of women were assisted at home by their non-professional personal, by their mother or by their neighbors (53.2%), by TBAs (40%) and by health extension workers (6.8%). The most mentioned reason for delivering at home were “easy labor” (64%). (Gebrehiwot et al., 2014)

Use of maternal health services revealed 310 (87.5%) registered for antenatal care in hospitals, 127 (35.9%) registered at first trimester, 184 (51.4%) registered at second trimester and 286 (80.8%) made at least four antenatal care visits. According to place of delivery 263 (74.3%) gave birth in the hospitals while 91 (25.7%) gave birth at traditional birth attendants homes. According to levels of use 134 (37.9%) made the best use, 132 (37.3%) good use while 36 (10.2%) poorly utilized maternal health services. There was significance association ($P < 0.05$) between age, education and use of maternal health services. There was no significance association ($P < 0.05$) between parity, socioeconomic status and use of maternal health services. (Amadi. 2015)

LITERATURES ON POSTNATAL CARE UTILIZATION

The study conducted in Debre Birhan town on determinants of post-natal care utilization in urban community, the result shows that, from the total respondents, we found that 83.3% mothers utilizes post-natal care services. Single mothers were less likely to utilize PNC service than those mothers who are married and live together [AOR=0.06, 95% CI (0.01, 0.45)]. THE study revealed that respondent’s knowledge about PNC services is an important predictor of post-natal care utilization [AOR=0.65, 95% CI (0.58, 0.94)]. (Angore et al., 2019)

The study conducted in northern Showa on prevalence and determinants of complete postnatal care service utilization, from total participants only 28.4 % of participants received the recommended three post-natal care visits within 6 weeks of delivery, among mother who have visited ANC clinic, the majority (58.4%) of these women did not receive counseling about PNC. The factor associated with complete PNC utilization. In multivariate logistic regression, mother who have given birth through cesarean section were 5.7 [AOR=5.7, 95% CI (3.9, 19)] times more likely to receive complete PNC service than those who delivered through spontaneous vaginal delivery. Similarly, mother having one child were 4.5 times

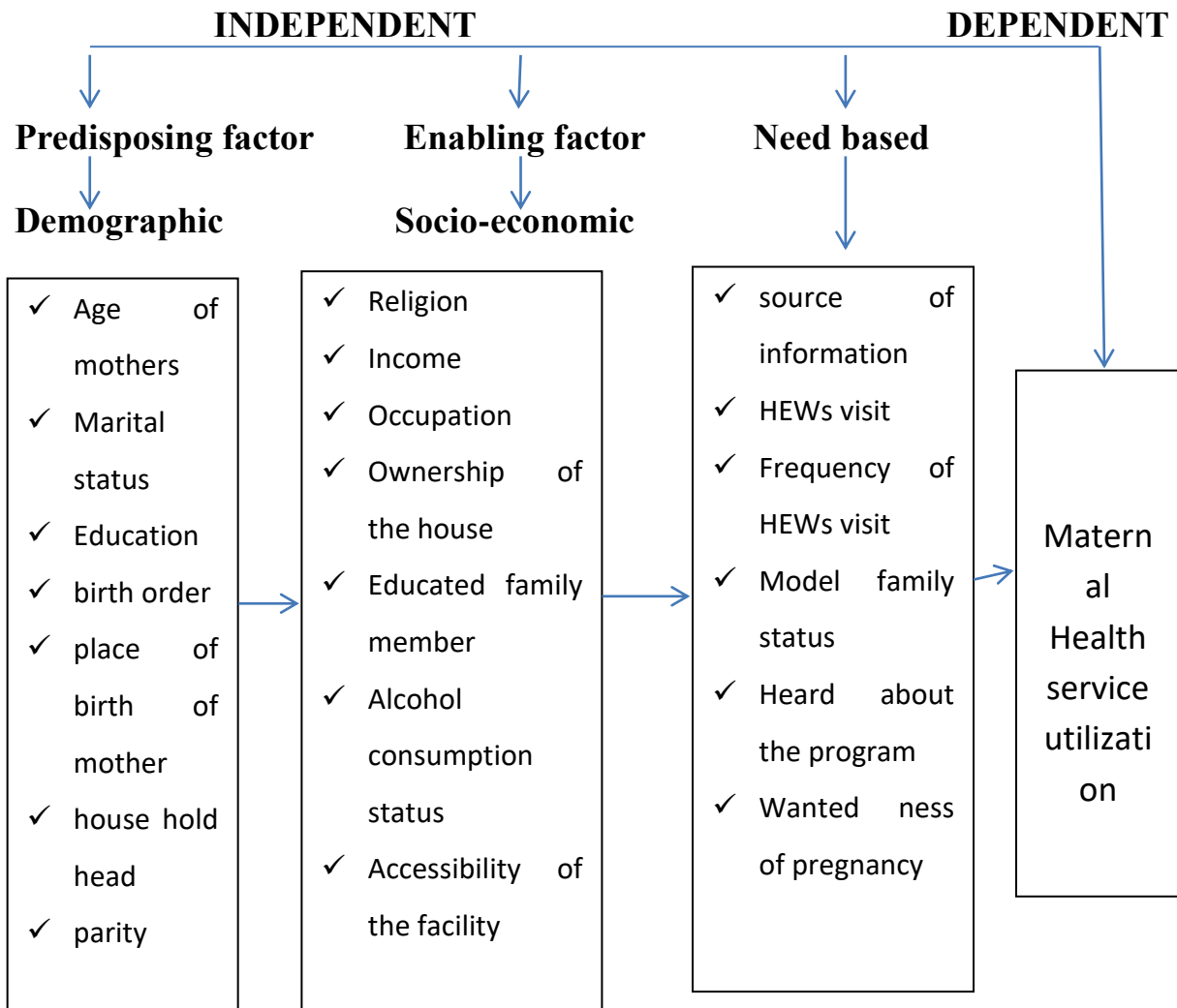
more likely to have full post-natal care [AOR=2.5, 95% CI (1.4, 14.2)] than multiparous women. Level of education [AOR=3.2, 95% CI (1.1, 9.2)] was another factor which is statistically significant with complete postnatal care utilization. (Mohammed et al., 2014)

The study conducted on antenatal care and institutional delivery based on 2016 EDHS report, Prevalence of institutional delivery service utilization for last children was 11.3% in comparison with mother having ANC visits with no ANC VISIT. The multi variable odd ratio (95% CI) of institutional delivery among those attend one to three and four or more ANC visits were 2.49 (1.66, 3.74) and 3.90 (2.60,5.84), respectively, other factor significantly associated with institutional delivery include urban residence 2.25(1.44,3.51); complete primary education 3.22 (2.09, 4.98), complete secondary and higher education 1.59 (1.16,2.19), poor house hold wealth index 2.57 (1.57,4.20), middle household wealth index's 1.63 (1.05, 2.52), and richer household wealth index 1.56 (1.03,2.58). (Abebe et al., 2016)

On the study conducted in Gondor Zuriya district on Knowledge, perception and utilization of post-natal care of mother who give birth in the last one year, 66.83% of them attended postnatal service and 33.17 % of mother who did not use PNC service provide deferent reasons for not attending PNC service the majority of mothers was because of lack of time or work load. (Fikirte et al., 2014).

2.3. CONCEPTUAL FRAME WORK

Andersen framework can be chosen because it focuses on analysis of health care service utilization from socio-demographic perspective. Andersen’s behavioral model of health care service use theoretically assumes that certain characteristic factors contribute to or determine an individual’s use of health care services. So, this study needs to determine demographic and socio-economic factors that affect the utilization of women for maternal health care services so this model was the best to fit and achieved the purpose of the study. The model groups these factors into 3 categories predisposing characterizing, enabling characteristics and need-based characteristics. (Anderson 1995).



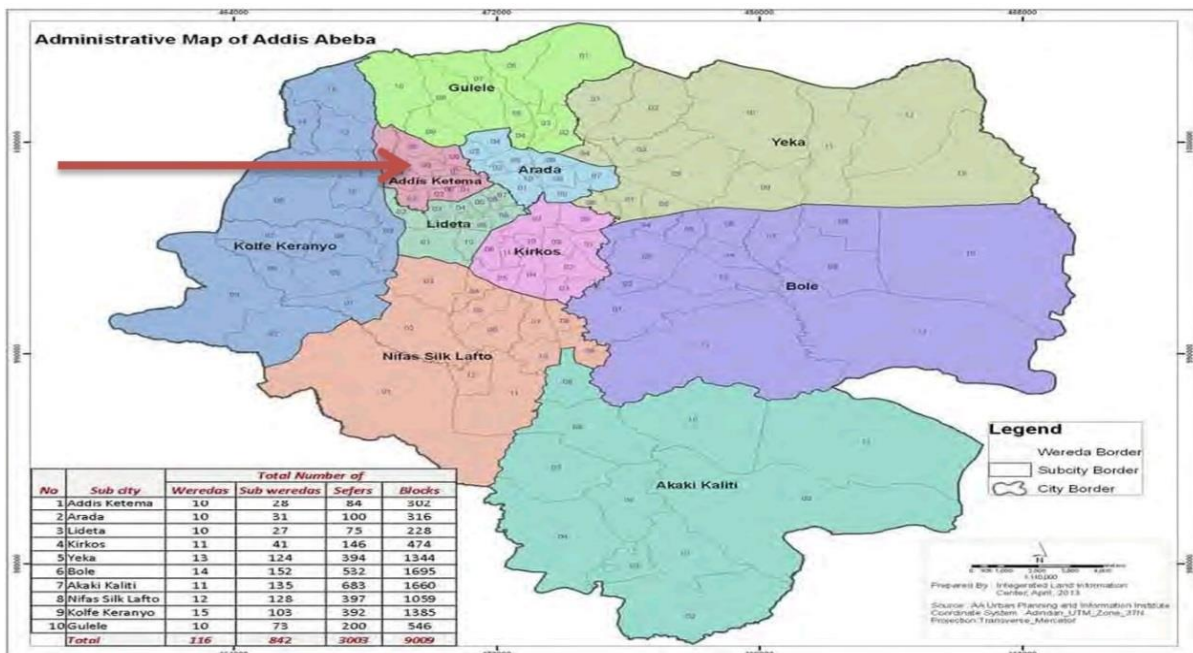
Source; - Andersen social determinant of health care service utilization model

CHAPTER THREE

3. RESEARCH METHDOLOGY

3.1. STUDY AREA AND PERIOD

Addis Ababa is the largest as well as the dominant political, economic, cultural, and historical city of the country established in 1887 by emperor Minilik II. It is the capital city of federal government and it is chartered city, where the Africa union and other organization reside. According to world urbanization prospects (2021), Addis Ababa's 2021 population is now estimated at 5,005,524. Which have 4.42% annual change. (UN, 2021). The city is divided in to eleven sub cities including the new Lemi Kura sub city, which are the second administrative unit next to city administration The sub cities also divided into weredas, According to CSA 2012 population projection by sub cities Addis Ketema was the 6th populous in the city administration with a population of 281,183 of which 51% are female. Addis ketema is where this research focused conducted from February 2021 up to August 2021. Addis Ketema is located in the north western area of the city, not far from its center. It located geographically at a Coordinates: 9°1'48"N 38°44'24"E. Addis Merkato, Africa's largest open-air market place, is found in Addis Ketema.



Source: Addis Ababa City Administration Integrated Land Management Information Center

3.2. STUDY DESIGN AND APPROACH

A mixed based study was carried out to assess the prevalence and factor affecting maternal health service utilization in Addis ketema sub city, Addis Ababa, Ethiopia.

In the quantitative part a community based cross-sectional study design was employed to assess the prevalence and demographic and socio-economic factors affecting utilization of maternal health service utilization in Feb, 2021 in Addis Ketema sub city, Addis Ababa, central Ethiopia.

An explanatory study was conducted to understand and critically analyze the factor affect the utilization. Qualitative research method was preferable to conduct in-depth understanding about the topic and get quality information about the factor affecting the utilization of maternal health service utilization in Addis Ketema sub city, Addis Ababa, Ethiopia.

3.3. SAMPLE SIZE DETERMINATION

Quantitative study

The sample size for quantitative data was calculated by using single population proportion formula and a total of 384 reproductive age women will recruit.

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

Where n is the sample size; $Z_{\alpha/2}$ is the confidence level at 95% = 1.96; P is the proportion of maternal health service utilization in the study area which is unknown, assumption of 50% (P=0.5); and d is the margin of error of 5%.

Since the source population is less than 10,000, the correction formula was used to get the final sample size as follow

$$n_f = \frac{n}{(1 + n/N)}$$

Where

n_f = required sample size

N = source population those are all estimated women those have under 3 years of age children

Hence, the sample size were calculated at a total of source population N = 145, n = 384, and $n_f = 322$, considering the non-response rate of 10 %, the total sample size were 352 reproductive age women's.

Qualitative study

The sample size for in-depth interview and focus group discussion should be large enough to sufficiently describe the phenomenon of interest, and address the research question at hand but the aim was the attainment of saturation of information by gating variety of option and to minimize repetitive answer by limiting the sample size at the point of saturation.

After considering all the factor mentioned above and based on research conduct on this issue 20 is good number for most compressive assessment, which include 20 in depth interview reproductive age mothers those have under 3 years of age children in Addis Ketema, Addis Ababa, Ethiopia. And 5 focus group discussions including professional personal by combining two stratum (weredas) together was contain 10 professionals with in each focus group discussions.

3.4. SAMPLING PROCEDURE

Quantitative study

For select the study participant for questionnaire data collection stratified sampling method were conducted.

First grouping the entire sub city into 10 stratum in this research the stratum is government political administration structure which is weredas then a list of eligible women who live in the selected weredas was obtained from weredas health center health extension registration book separately from each Stratum's (weredas). those lists were used as a sampling frame for each Stratum's and a probability sampling proportional to the population size techniques was used to determine the number of respondents that was selected from each Weredas. Finally, the respondent included in the study was identified by using simple random sampling technique was used.

The house hold missed or not volunteer to participate the next house hold were selected and included in the study.

Qualitative study

For select the study participant for in-depth interview those have under 3 years of age children by purposively and continue considering the maximum verity in their demographic, socio economic conditions, and their response about their maternal health care service utilization experience history, for each stratum (weredas) to collect detail information about factors related to maternal health service utilization.

Participant of focus group discussion was purposively selected one health extension worker; one women development army leaders; one health center midwife professional; wereda health office family health officers and one wereda women and child office representative were the member of the discussion. Two stratum or weredas were combined in one FGD by lottery method.

3.5. DATA COLLECTION PROCEDURE

Quantitative study

For data collection a fully structured and pre-tested questionnaire were used. The questionnaires are first developed in English and then translated into Amharic local language. The questionnaire is developed based on standard DHS survey questions and other pre-condition of the area under study.

A structure face to face interview was performed by trained interviewers and supervised by the researcher. In order to maintain the quality of the data to be collected a pre-test are performing and corrected based on the finding of the pretest before the actual data collection. The interview was conducted by using local languages (Amharic).

Pre-test will be carrying out on 5% (17) women outside the study areas before 10 days of actual data collection.

Qualitative study

The qualitative data collection method was exploratory and more focused on gaining insight and in-depth understanding of the underlying reasons by digging deeper. In this research work individual in depth interview and professional Focus Group Discussion was used.

3.6. DATA QUALITY MANEGEMENT

The quality of data was assessed by proper designing and pretesting of the questionnaires' in one of the neighbors wereda of Addis Ketema sub-city outside the focus area of the study on 5% of total sample size of the participants.

Every day after data collection, Questionnaires was reviewed and check-up for completeness by the investigator and the necessary feedback was offered to data collectors in the next morning and before ending all session incomplete questions was completed using pre coding for central errors during data analysis.

3.7. STUDY VARIABLE

In this study two types of variables are incorporated. These are dependent variables and independent variables that are supposed to be predictors of the dependent variables.

3.7.1. Dependent variable

Antenatal care; if the women aged between 15 to 49 years of age checked by a health professional at least once during her last pregnancy

Skilled birth attendance; if a woman is attending child delivery service in health facility

Postnatal care; if the woman is received a medical checkup from a health professional within 7 days after delivery.

3.7.2. Independent variables

Demographic variables; - including Age, Religion, Marital status, Education, Birth place of the mother, parity, birth order.

Socio-economic variables Occupation, Wealth of the household, Media exposure, State of addiction, Household ownership, family member in the house hold

Need based factors HEWs visit, Model family status, wantedness, heard about the services

3.8. POPULATION

3.8.1. Source population

All women living in the study area those in a child bearing age (15 – 49 years) in Addis Ketema sub city of Addis Ababa, Ethiopia.

3.8.2. Study population

- All women who had alive birth in the 3 years preceding the survey to minimize the recall bias from the relapse
- Women of reproductive age (15 – 49 years) who give birth at least one live birth in the 3 year prior to the survey date and the usual resident of the area.

3.9. ELIGIBILITY CRITERIA

3.9.1. Inclusion criteria

- Women in reproductive age group (15-49) those have under 3 years of age children
- Women live in Addis Ketema sub city for at least 3-month period

3.9.2. Exclusion criteria

- Women in reproductive age group (15-49) those have greater than or equal to 3 years of age children
- Women live in Addis Ketema sub city for less than 3-month period
- Women those have under 3 years of age children live in the street

3.10. DATA ANALYSIS PROCEDURE

Quantitative study

When the questionnaire's data collection process is complete, the questionnaires are edited and coded. Then the data was entered and processed by using SPSS version 23, logistic regression model was used to identify factors associated with the utilization of maternal health care services among reproductive age women during their last pregnancy in Addis Ketema sub-city, Addis Ababa, Ethiopia.

Descriptive statistics was used to summarize the data and the result was presented using frequencies, tables, and percentages. Bivariate logistic regression was carried out between the selected independent factors and the outcome variables (maternal health care service utilization). At bivariate level, odds ratio was used to assess the association of maternal health services and independent variables. Statistical significance was sat at p-value of less than 0.05. Variables that shows a statistically significance ($p < 0.05$) at bivariate level was further analyzed by multiple logistic regression methods.

Multiple logistic regression analysis was used to show factors determine the outcome variable. To determine the factor most statistically significance with maternal health service utilization, AOR with 95% CI level was determined using logistics regression analysis.

Qualitative study

The data collected from in depth interview and focus group discussion was analyzed through the tape-recorded interview was transcribed to local language and was translated in to English. The data consider largely of interview transcripts and focus group transcripts. The investigator coded the transcript following the objectives and emerging them from the data. Accordingly, finding was categorized in to different themes and sub themes. Under each theme sub themes were developed then the interpretation and analysis of the result follow the respective themes and verbatim that capture dominant view was considered, whether appropriate to substantiate the finding.

3.11. ETHICAL CONSIDERATION

The study was obtained ethical approval from the institutional research ethical committee (IREC) of Addis Ababa university college of developmental studies and the official letter was given to Addis Ketema health office to get permission to conduct the research and for full participation by given appropriate data the researcher needed. The data collector was explained carefully the purpose of the study and the right of the respondents being included in the study. Participants were assured the confidentiality of their responses throughout the research process and thereafter. Informed verbal consent was secured before the collection of the data.

3.12. DISSEMINATION OF THE RESULT

The result of the study was disseminated both with hard and soft copy to Addis Ababa university college of developmental studies, post graduate program. The research result was disseminated and accessed to others to be employed as source of information to do further research and even to critique the findings and also the result was provided to health offices of Addis Ketema sub-city and advised to the health office of the sub city health office to give the findings to each wereda's health offices and health centers on which study was conducted. It was sent for publication on scientific journals in related fields.

CHAPTER FOUR

4. RESULT AND DISCUSSION

4.1. RESPONDENT COVERAGE

In this study out of the total sample size, which is 352 reproductive aged women those have under three years of age children, 343 women were responded to the questionnaires', this makes 97.44% respondent rate.

4.2. BACKGROUND CHARACTERISTICS

4.2.1. Demographic characteristics of the respondent

The majority (50.4%) of the respondent were born in outside from Addis Ababa and 49.6% of respondent were born in Addis Ababa. Based on religion that mothers follow majority of women (58.6 %) were orthodox, (29.7 %) were Muslim, (28 %) were Protestant and the remaining (12 %) were Catholic followers.

Table 1; - Demographic characteristic of women in Addis Ketema sub city, Addis Ababa, 2021 (n=343)

Back ground characteristics		Number	%	ANC	DELIVERY	PNC
				YES	YES	YES
Age of mother	15-19	24	7	70.83	70.83	62.5
	20-24	29	8.5	89.66	86.21	86.21
	25-29	93	27.1	97.85	89.25	95.70
	30-34	85	24.8	94.11	88.23	95.30
	35-39	60	17.5	96.67	98.33	90
	40-44	43	12.5	95.35	88.37	79.07
	45-49	9	2.6	100	100	77.78
Education of mother	Illiterate	54	15.7	85.19	81.48	77.78
	Read &write	74	21.6	86.49	85.13	86.49
	1-8	105	30.6	99.05	93.33	94.29
	9-12	72	21	97.2	90.28	88.89
	>12	38	11.1	100	94.74	94.74
Religion of mother	Orthodox	201	58.6	96.02	88.56	90.55
	Muslim	102	29.7	92.16	88.24	88.24
	Catholic	12	3.5	100	100	83.33
	Protestant	28	8.2	82.14	92.86	82.14
	Widowed	7	2	85.71	100	71.43
Parity	1	69	20.1	95.65	75.36	94.20
	2-4	253	73.8	93.28	92.89	88.54
	>=5	21	6.1	95.24	90.48	76.19
Birth order	1	89	25.9	86.52	82.02	84.27
	2-4	239	69.7	96.65	92.05	91.63
	>=5	15	4.4	93.33	86.67	73.33
Husband Education	Illiterate	13	4.4	76.92	84.61	76.92
	Read & write	47	16	91.49	91.49	80.85
	1-8	89	30.4	96.63	93.26	88.76
	9-12	92	31.4	98.91	89.13	94.57
	> 12	52	17.7	100	98.08	96.15

4.2.2. Socio-Economic characteristic of respondents

Among the total respondents, mother had family member having formal education, 190 (55.4%) of respondent women had family member having formal education, out of those members, the majority 70(36.8%) were secondary level of education, 51(26.8%) were more than secondary level and the remaining 69(36.3%) were primary level of education.

Table 2: - Socio-economic characteristic of women in Addis Ketema sub city, 2021

SOCIO-ECONOMIC VARIABLES		FREQ UENCY	%	ANC	DELIVERY	PNC
				YES (%)	INSTITUTION	YES (%)
Occupatio n of mother	House wife	162	47.2	93.83	94.44	91.98
	Private	50	14.6	90.00	86.00	84.00
	Employee (Private)	41	12	100.00	87.80	85.37
	Gov't employer	34	9.9	100.00	94.12	97.06
	Safety net	28	8.2	100.00	75.00	89.29
	Merchant	9	2.6	100.00	88.89	88.89
	Other	18	5.2	66.67	61.11	72.22
Occupatio n of husband	None	23	7.8	95.65	86.96	86.96
	Merchant	42	14.2	95.24	90.48	97.62
	Private	56	19	100.00	100	92.86
	Daily labor	62	21	91.94	74.19	88.71
	Driver	54	18.3	96.30	90.74	92.59
	Private employer	32	10.8	96.88	100.	84.38
	Gov't employer	24	8.1	100.	100.	100.
	Others	2	0.7	100.	50.	100.
Wealth index	Lower	130	37.9	90	82.31	89.23
	Second	79	23	97.47	93.67	86.08
	Middle	66	19.2	98.48	92.42	86.36
	Forth	34	9.9	91.18	94.12	94.12
	Higher	30	8.7	93.33	90.00	96.67
Ownership of the house	Parents	42	14.43	100.	92.86	90.48
	Mother	131	45.02	95.42	93.13	87.79
	Husband	118	40.55	94.92	85.59	86.44
Mother alcohol	Yes	96	28	83.33	80.21	85.42
	No	247	72	97.98	92.31	90.69
Husband alcohol	Yes	130	43.6	94.62	86.92	90.00
	No	168	56.4	97.62	93.45	92.86

4.2.3. Perceived need based related characteristics of respondents

Regarding the source of information in the household 89.5% of them have at least one means of source of information in their house. Among mothers 264 (77%) of respondents were heard about maternal health services. Mothers those participate in the studies only 89 (25.9%) were received model family training the remaining 251(74.1%) were do not received a model family training from health extension workers

Table 3: - perceived need-based characteristic of women in Addis Ketema sub city, Addis Ababa, 2021 (n=343)

SOCIO-ECONOMIC VARIABLES		Number	%	ANC	DELIVERY	PNC
				YES (%)	INSTITUTION (%)	YES (%)
Heard about MH services	Yes	264	77	80.12	92.42	92.05
	No	79	23	19.88	7.58	7.95
From whom heard	HEW	109	41.3	100.00	95.41	94.50
	Service provider	99	37.5	97.98	90.91	85.86
	TBA	3	1.1	100.00	66.67	100.00
	Close person	44	16.7	90.91	88.64	97.73
	WDA	8	3	100.00	100.00	100.00
Frequency of HEW visit	NO	158	46.1	88.61	87.34	87.97
	0-15DAYS	77	22.4	100.00	88.31	89.61
	16-1MTH	43	12.5	95.35	97.67	83.72
	1-2MTH	26	7.6	96.15	84.62	100.00
	>2MTH	39	11.4	100.00	89.74	92.31
Model family training	Yes	89	25.9	98.88	91.01	97.75
	No	254	74.1	92.13	88.19	86.22

4.3. LEVEL OF MATERNAL HEALTH SERVICE UTILIZATION

Out of 343 women, 322 (93.9%) of respondents had attended ANC service at least one times during the last pregnancy. About more than half (59.9%) of women made their first antenatal care visit in the second trimester 37.6% made during their first trimester, and the rest (2.5 %) of women attended in the third trimesters of pregnancy. Of those who attended ANC services at least once, majority asked about frequency of ANC service attendance, 49.2% had less than four antenatal care contact and the rest, (50.9%) reported to have four or more antenatal visit during last pregnancy.

Table 4: -Information related to maternal health service utilization of women in Addis Ketema sub city, Addis Ababa, 2021

R. N	CHARACTERISTICS	INDICATORS	FREQUENCY	PERCENTAGE
1	Timing of start ANC	1 st Trimesters	121	37.6
		2 nd Trimesters	193	59.9
		3 rd Trimesters	8	2.5
2	Number of ANC visits	1	5	1.6
		2	88	27.3
		3	65	20.2
		>=4	164	50.9
3	Place of ANC service	Health center	252	77.5
		Gov'tal hospital	40	12.3
		Private	31	9.5
		At home	2	.6
4	Planning status	Planned	224	70.4
		Un-planned	94	29.6
5	History of husband involvement in ANC	Always	69	22.5
		I times	121	39.5
		Never	116	37.9
6	History of home delivery	Yes	36	10.5
		No	216	63.6
7	Timing of PNC visits	Within 2 days	41	13.4
		2 to 7 days	130	42.5
		8 to 15 days	21	6.9
		16 to 1 MTH	20	6.5
		>1 MTH	94	30.7

Out of the survey participants, 305 women's (88.9%) gave birth at the health facility and only (11.8%) of women were gave birth at home. out of the total study participant 171 (49.9%) of women had ever visited health facility for one PNC visit in the first 7 days after delivery.

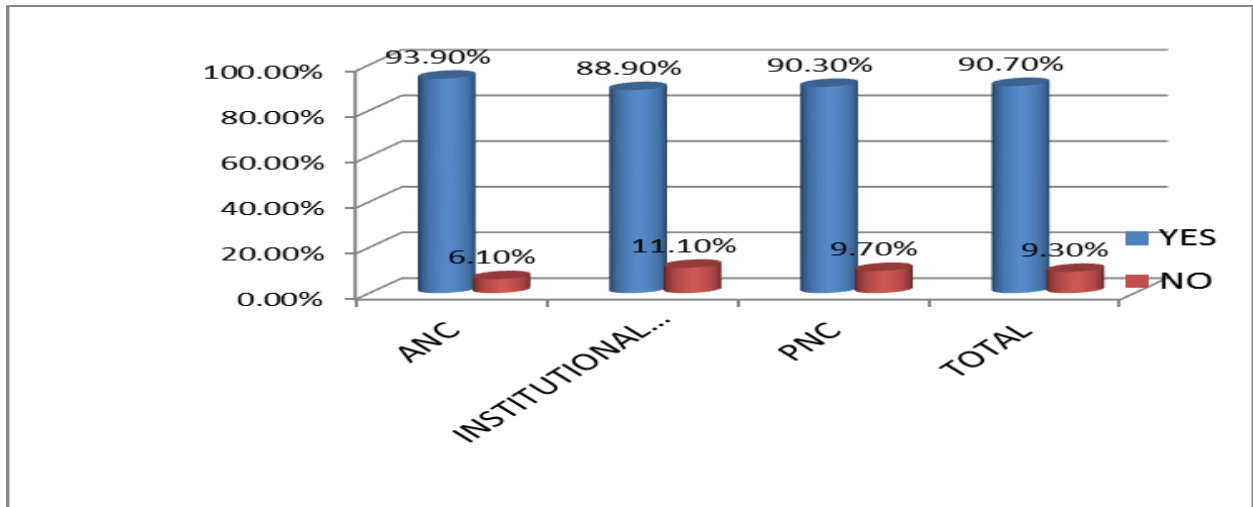


Fig 1: - Maternal Health service utilization by respondent from women in Addis Ketema sub city, Addis Ababa, 2021 (n=343).

Mother ANC utilization by timing of PNC service utilization

Among mothers who attend ANC visits, 161 (50%) of these women did not receive postnatal care within 7 days after delivery. And 91 (50%) of women those received ANC service visit their first PNC visit after a month of their delivery time.

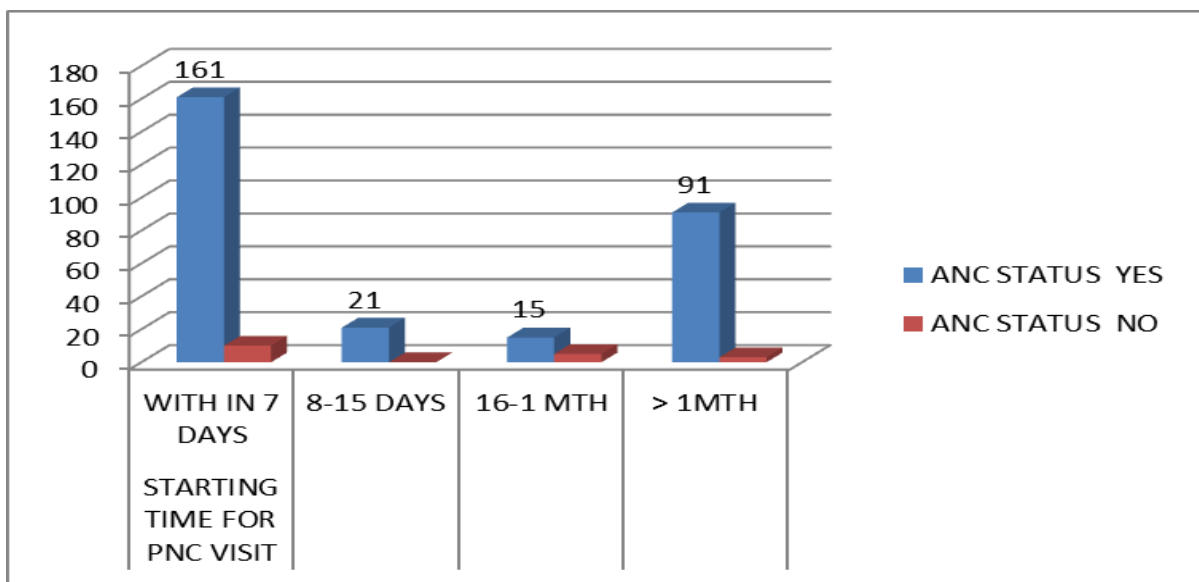


Fig 2:- Maternal antenatal care utilization of respondents by time of post-natal care utilized mother in Addis Ketema sub city, Addis Ababa, Ethiopia. 2021

4.4. REASON OF MOTHERS FOR MATERNAL HEALTH SERVICE UTILIZATION

Reason of mothers for not fully attendance of antenatal care visit

Out of 179 not fully attend antenatal care follow-up more than 28 % of women reported that being healthy was the major reason. The other reason was lack of information about the service (16.4%), lack of awareness (12.4%) and due to waiting time (10.7%).

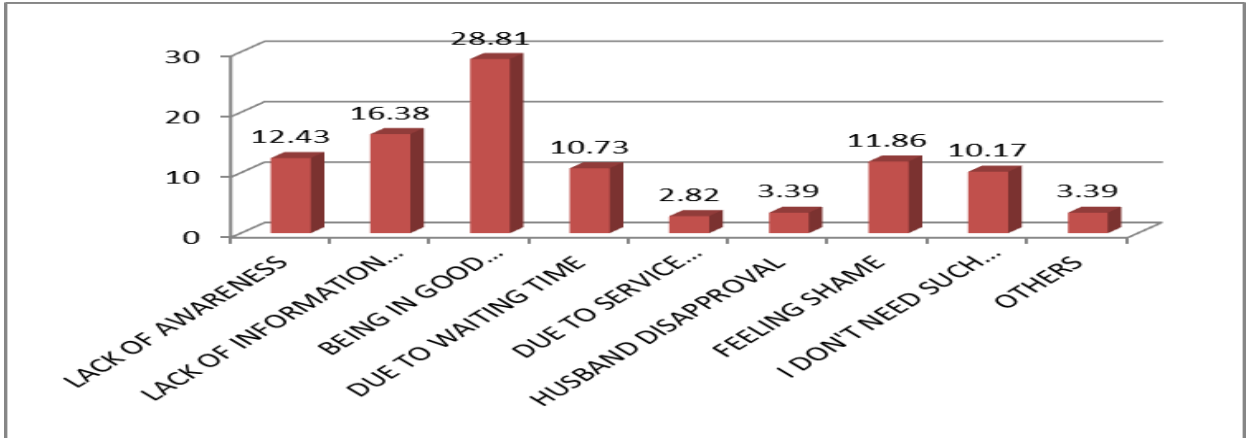


FIG 3: - Reason of mothers for not fully attendance of antenatal care visit in Addis Ketema sub city, Addis Ababa, 2021. (n=179)

Reason of mothers to start of antenatal care visit

The major reason of mothers to start antenatal care visit (47.2%) were reported that "during a time of pregnancy checkup", and 29.8 % were reported that "when they face health related problem".

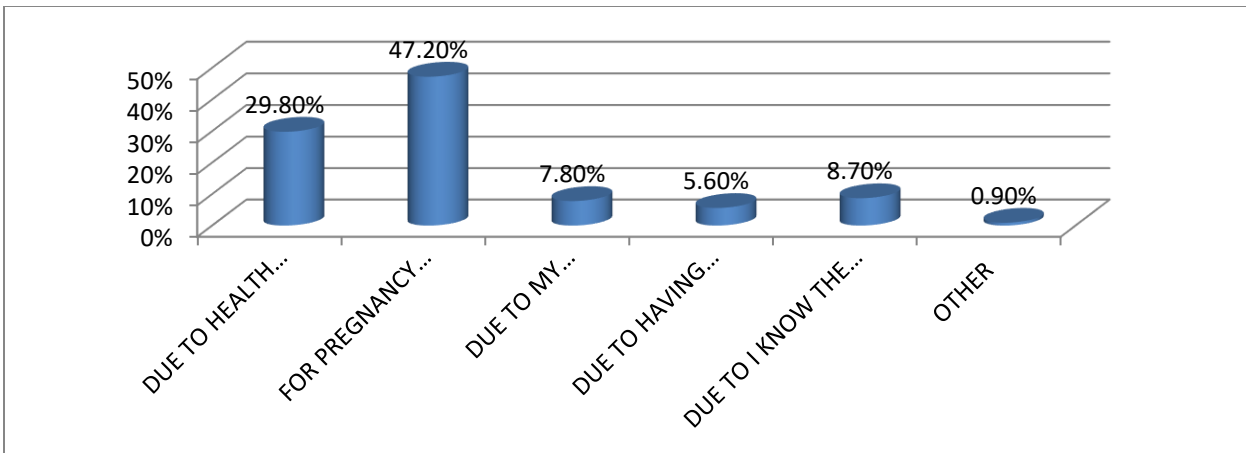


Fig 4: - Reason of mothers to start of antenatal care visit in Addis Ketema sub city, AA, 2021. (n=322)

Reason of mothers for not attendance of postnatal care visit within 7 days

The major reason of mothers for not attend postnatal check-up within 7 days for their last child birth reported that (50.9%) were "No health problem or being a good health condition and (14.1%) were " Have No any reason".

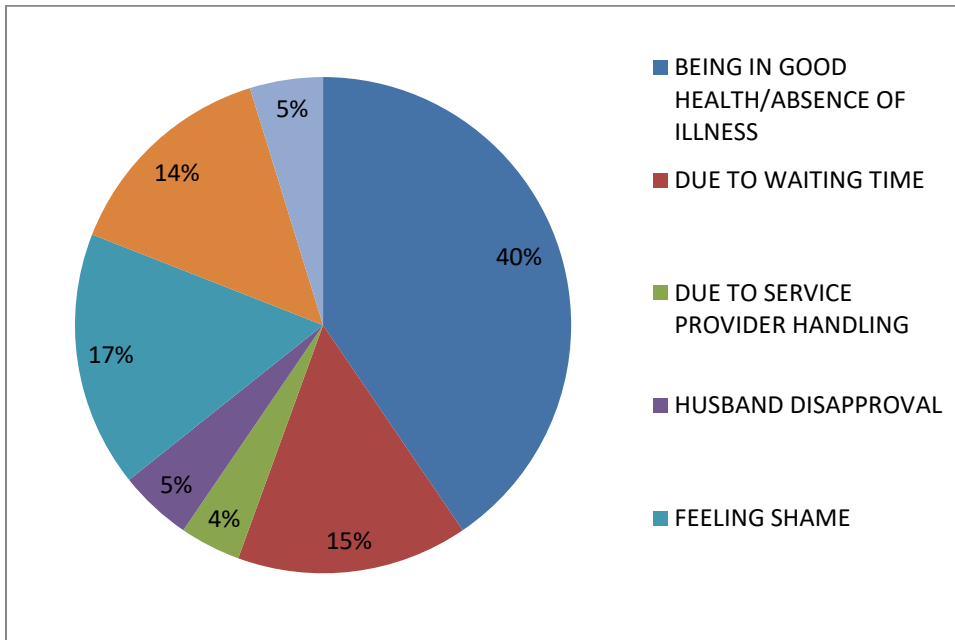


Fig 5: - Reason of mothers for not attendance of postnatal care visit within 7 days in Addis Ketema sub city, Addis Ababa, 2021. (n=135)

Reason of mother for places of Delivery

Among women delivered in health facility the two major reason were "To solve labor related problem" 109 (35.5%) and "Need professional assistance" 86 (28.0%). The other reasons that the mothers respond 14% were due to fear of loss of mother life, 13% were due to cleanliness of health facility and the remaining 9% were due to availability of nearby health facility and disposal for placenta.

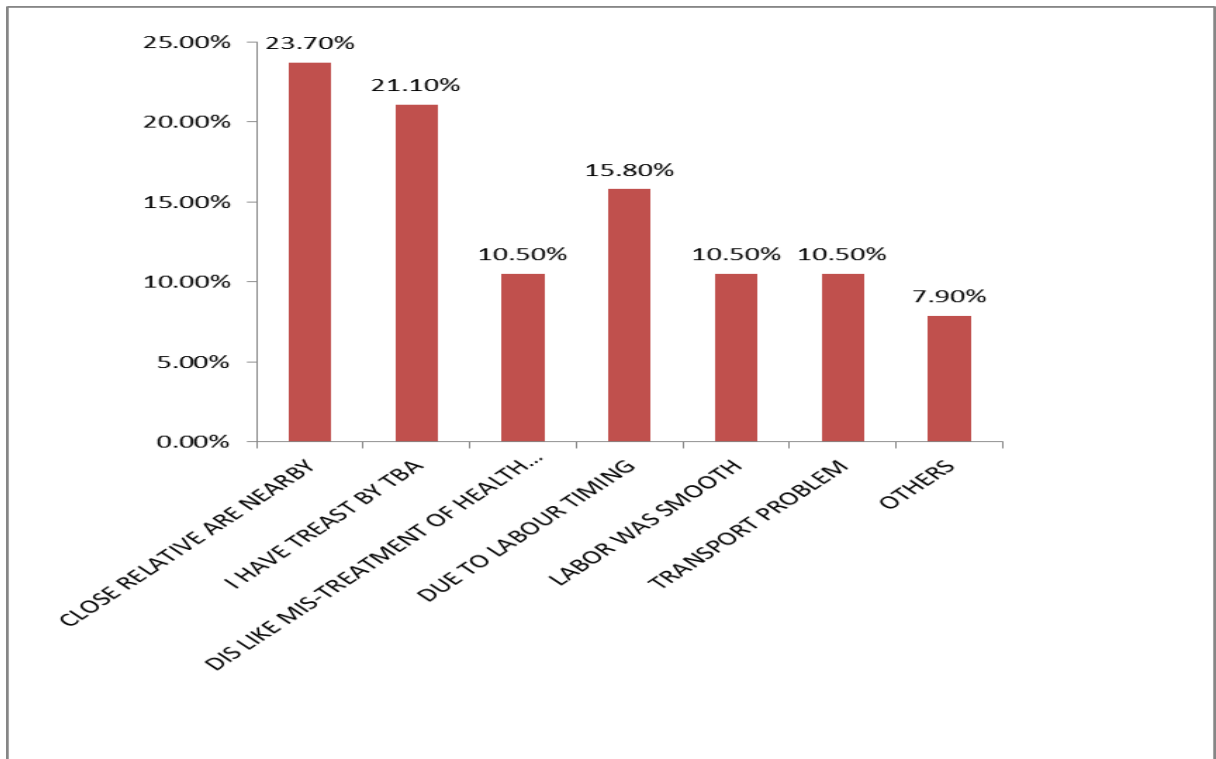


Fig 6: - Mothers Reason of Home Delivery in Addis Ketema sub city, Addis Ababa, 2021. (n= 38)

4.5. LOGISTIC REGRESSION

4.5.1. Bi variant logistic regression model

Demographic variables

Among the demographic variables mother level of education (P value=0.01), birthplace of mother (P value=0.01), husband level of education (P value=0.01), total number of pregnancy (P value=0.01) and birth order of the last child (P value=0.001), were showed a significant association with mother skilled ANC attendance. Marital status (P value=0.018), husband level of education (P value=0.011), total number of pregnancy (P value=0.029), were showed a significant association with skilled delivery attendance and among demographic variables only age of mother (P value=0.007) were showed a significant association with mother PNC utilization.

Socioeconomic variables

Among the socioeconomic variables mother occupation (P value=0.000), head of the household (P value=0.001) and ownership status of the house (P value=0.01) were showed a significant association with mother skilled ANC attendance. Mother occupation status (P value=0.018), head of the household (P value=0.000) and monthly income of the house (P value=0.028) were showed a significant association with skilled delivery attendance and among socioeconomic variables only mother occupation (P value= 0.03) were showed a significant association with mother PNC utilization.

Perceived need-based factors

Among the perceived need-based factors mother status of information on maternal health care services (P value=0.046) and means of communication in the house (P value=0.000) were showed a significant association with mother skilled ANC attendance. Mother response of wontedness of their last pregnancy (P value=0.034), mother information on maternal health services (p value= 0.007) and means of communication in the house (P value=0.025) were showed a significant association with skilled delivery attendance and among perceived need based variables mother status of model family training (P value= 0.009) and means of communication in the house (P value=0.001) were showed a significant association with mother PNC utilization.

Table 5; - Binary regression of independent variables and maternal health service utilization.

Characteristics	ANC		HF delivery		PNC	
	ORS	Sign	ORS	Sign	ORS	Sign
Demographic variables						
Age	0.595	0.23	1.011	0.941	0.707	0.007*
Marital status	1.025	0.931	0.648	0.018*	0.907	0.661
Mother education	0.411	0.01*	1.26	0.151	0.74	0.088
Religion	1.944	0.003*	0.738	0.105	0.756	0.219
Birth place	0.214	0.018*	1.247	0.567	1.272	0.561
Husband education	0.391	0.009*	1.633	0.011*	0.84	0.385
Birth order	0.078	0.001*	0.693	0.35	2.336	0.456
Parity	12.703	0.001*	0.369	0.029*	0.029	0.08
Socio- economic variables						
House hold head	1.054	0.001*	0.96	0.000*	0.995	0.687
Wealth index	0.997	0.952	1.485	0.028*	0.871	0.325
Person in HH having formal EDU	6.028	0.1	0.589	0.21	0.521	0.144
Husband occupation	0.996	0.945	0.974	0.08	0.986	0.794
Ownership of the house	1.019	0.01*	0.993	0.15	1.002	0.768
Mother occupation	1.026	0.00*	0.984	0.018*	1.014	0.03*
Information about MHS	0.269	0.046*	0.3	0.007*	0.976	0.962
Frequency of HEW visit	0.081	0.188	0.965	0.803	0.778	0.156
Perceived need-based variables						
Mother alcohol consumption	0.182	0.75	1.175	0.757	1.696	0.4
Husband alcohol consumption	1.773	0.568	1.693	0.285	0.565	0.245
Means of communication	21.285	0.00*	0.26	0.025*	0.136	0.001*
Model family status	7.521	0.05*	1.241	0.656	6.952	0.009*
Wontedness	0.612	0.45	2.375	0.034*	2.161	0.098

* - Indicate the variables those have significantly associated with dependent variables (P value < 0.05).

4.5.2. Multi variant logistics regression model

Multi variant logistic regression of variables was used to show the significance of association between independent variable that shows significant association during bivariate logistic regression with p-value less than 0.05 and dependent variables which are antenatal care, skilled delivery attendance and skilled postnatal care utilization of mother those have under three years of age children in Addis Ketema sub-city, Addis Ababa, Ethiopia.

Table 6: - Multiple logistics regression of independent variables and maternal health service utilization of mothers in Addis ketema sub city Addis Ababa, Ethiopia.

Characteristics	ANC			Delivery			PNC		
	AOR	Sign	95% CI	AOR	Sign	95% CI	AOR	Sign	95% CI
Age	1.64	0.003	1.189-2.269				1.319	0.036	1.022-1.704
Marital status				0.546	0.007	0.352-0.847			
Mother education	2.52	0.000	1.529-4.152						
Mother occupation	1.10	0.000	0.950-1.475				0.987	0.024	0.976-0.998
Religion	0.62	0.034	0.398-0.965	0.959	0.001	0.934-0.984			
Birth place of mother	3.53	0.001	1.224-10.31						
Husband education	3.59	0.001	1.635-5.157	1.51	0.053	0.994-2.293			
House hold head	1.85	0.048	1.006-3.39	0.962	0.003	0.937-0.986			
Wealth index				1.276	0.136	0.926-1.757			
Parity				0.426	0.017	0.212-0.856			
Birth order	0.53	0.293	0.163-1.73						
Wantedness				0.328	0.003	0.156-0.690			
Info about MHS				0.435	0.036	0.200-0.948			
Ownership	0.97	0.009	0.975-0.99						
Means of communication	0.35	0.000	1.197-4.16	0.23	0.001	0.096-0.549	0.249	0.001	0.106-0.583
Model family status							0.19	0.027	0.044-0.825

4.6.DETERMINIST'S OF MATERNAL HEALTH CARE SERVICE UTILIZATION
Strength of association between the independent variables which are demographic and socio-economic variables and dependent variables which are maternal health care services (skilled ANC attendance, skilled delivery service and Skilled PNC attendance)

4.6.1. Demographic and socio-economic factors affecting MHS

RELIGION

Use of skilled ANC service

Use of skilled ANC service was significantly associated with religion of women, orthodox Christian (AOR= 0.62 95% CI= 0.398 – 0.985) were less likely to use skilled ANC service compared to women of other religion.

EDUCATION

Use of skilled ANC Attendance

Both education level of women and their husband was significantly associated with the use of ANC services. Women who have completed secondary school and higher educations were more likely to use skilled ANC attendants than women who had no formal education. AOR=2.52, 95%CI=1.52-4.15 (for higher education) and women whose husband were educated to secondary and higher level were more likely use skilled ANC attendance (AOR= 3.594, 95% CI=3.667-3.521).

Use of skilled delivery attendance

There was no significant association between education of women and health facility delivery attendance but have significant association with education status of their husband. The uses of skilled delivery attendance were more likely increase with education level of husbands. (AOR= 1.510, 95% CI= 0.994-2.293).

MATERNAL AGE

Use of PNC service

There were a significant association between the age of the mother and use of skilled postnatal care service. The likelihood of women to use postnatal care service was high among a woman who was aged between "40-44" (AOR= 1.319 95% CI= 1.022 – 1.704).

PARITY AND BIRTH ORDER

Use of ANC and PNC attendance

The number of live births the women ever have (birth order) was significantly associated with women ANC attendance. The utilization of ANC attendance more likely increase with decreasing the number of children the women have (AOR= 0.53, 95% CI= 0.163 - 1.731)

Skilled delivery attendance

There were a significant association shown between total number of pregnancies the women ever have and skilled delivery service utilization. The likelihood of women to use skilled delivery service was high among women who had lower number of pregnancy than those had higher number of total pregnancy (AOR= 0.426, 95% CI= 0.212 - 0.856) but There was no significant association shown between birth order of the last child and skilled delivery service utilization.

OCCUPATION STATUS OF MOTHER AND THEIR HUSBAND

Use of ANC and skilled delivery attendance

There was no significant association shown between the Working statuses of husbands with all the three maternal health care services. But the working status of mother has significant association with skilled antenatal care service utilization. The mother had formal occupation status were more likely to use skilled antenatal care attendance (AOR = 1.103, 95% CI = 0.950 – 1.475) than unemployed women.

Use of PNC service attendance

The working status of mother had significant association with skilled postnatal care service utilization. The mother had formal occupation status were more likely to use skilled antenatal care attendance (AOR = 0.987, 95% CI = 0.976 – 0.998) than unemployed women.

BIRTH PLACE OF MOTHER

Birth place of mother were show significant association only with skilled antenatal care service utilization, there were no significant association between the birth place of the mother and both skilled delivery and postnatal care service attendance.

Women born in Addis Ababa were more likely used skilled ANC service (AOR = 3.552, 95% CI = 1.224 – 10.310) than those women born outside Addis Ababa.

MARITAL STATUS

Skilled delivery attendance

Marital status was found to have significant association only with use of skilled delivery service, married women (AOR = 5.280, 95% CI = 0.944 – 29.539) and never married (AOR = 2.618, 95% CI = 0.451 – 15.192) were found to be more likely to use skilled delivery attendance than living together/divorced/widowed women.

Most participants of focus group dissolution and in-depth interview told that women age of pregnancy, working status, place of mother delivered, level of education of the mothers, occupation status of women, family support or economic status, ownership status of the mother lived was directly or indirectly affect the utilization state of maternal health services. It was considerably the case that students, teenagers, commercial sex workers, daily laborers, house maids and migrants that stay in the area temporarily do not use the maternal health services. One of the participants reported; "I don't see students and housemaids who become pregnant in connection to unsafe sexual intercourse could not seek health care at facilities. In the community this is shameful and embracing. These women need to terminate their pregnancy instead of going to health facility ANC or delivery. If the pregnancy is not terminated, usually such women could not have any follow up or delivered at home." (Wereda 7, WDAL). Another participant in FGD noted. "For in school girls, commercial sex workers, illegal cheap bed rented girls and generally self-helped poor women's, getting pregnant is considerably unhealthy. This is unacceptable not only by the community but also by these sections of the population themselves. Due to this reason, they keep their pregnancy away and do not take maternal health services especially ANC and PNC services." (WDAL, Wereda 01).

Characteristically, unemployed women, women born outside Addis Ababa lived in illegal cheap beds rented house, uneducated women and street based CSWs do not have access to information about health services, tend to be isolated from the society, have fear of stigmas due to this they terminate their follow-up or do not access those maternal health services. One participant of FGDs told that "women come from different parts of the country lived in our weredas most of them are teenagers, and they are exposed to commercial sex works and rape, they are unwilling to go to health facilities for follow-up or terminated their follow-up and they shift their place of residence to other places we cannot get them." (UHEWs, wereda 08).

All participant women selected for in-depth interview and FGDs stated that health facility based maternal health services care is best for the mother and the child and mother's fully utilized those services is increase time to time, this indicated that the knowledge of potential pregnancy related complications shaped their decision to seek facility based ANC, DELIVERY and PNC, participant had exposure to the media to obtain information about maternal health services and from HEPs , through health education conducted in health center and from other member of the society.

One in-depth interview participant women said "Facility based delivery are good because the provider knows how to manage the delivery of the baby and placenta. This is the reason i delivered at a health center. I heard the information from radio and television that we should deliver and follows the care at health center." (wereda 04).

Some participants of FGDs and in-depth interview argued that low socio-economic women's, costs and unavailability of means of transportation and unexpected delivery are the factor of maternal health service utilization. The majorities of women having history of home delivery are poor and have no any family and social support, irregular working status. One woman who gave birth at home clearly stated that she would have "preferred to delivered at health facilities" and that "It was accidental" for delivered at home. (wereda 09). Other participant says "i gave birth my second child at home with the help of neighboring person at the midnight; a government have a problem of ambulance services. They did not come and i have no any support for transportation. It was very hard, but i convinced myself that i have to practice what I have been taught by UHEPs and i follow my entire ANC checkup and gave birth at health center for my third child birth." (wereda 02).

One study participants of in-depth interview point out that "the service provider order ultrasound check up provided at private institutions repeatedly. I do not have any money to costs for such services so i terminate the follow up till my delivery." (wereda 06).

Lack of appropriate information is a challenge to seek and use available maternal health services. One of the participants argued "I think those who come from rural area in search job and ended up as daily labor or CSWs do not have information about the importance of health care during pregnancy and postpartum." (WH OFFICE FH officer. Wereda 08). Other participants point out, "Street girls and CSWs working on the street who get pregnant often do not know how those type of problem could have been avoided and do not know what to

do about it. Besides, they may not have someone to guide and support them. As a result, they do not visit health facility for MHSs." (Wereda W & C office officer, wereda 03).

4.6.2. Perceived need related factors affecting MHS

WANTEDNESS AND KNOWLEDGE ABOUT MHS

Use of skilled delivery service

Both wantedness and knowledge of mother about maternal health services were significant association only with use of skilled delivery service. The response of mother about the wantedness of the last child, wanted (AOR = 0.328, 95% CI = 0.156 – 0.690) and mother have knowledge about MHS (AOR = 0.435, 95% CI = 0.200 – 0.948) more likely utilize skilled delivery attendance than those unplanned child delivery and mother have no information about MHS.

UHEPs and health education given in health center educate the community women to get their ANC at health center and for further continue the ANC check up at the health center, any pregnant women in the catchment area should get all MHSs. The UHEPs provide model family training to women and established women development group in her catchment area by including all women aged greater than 18 by organizing the group by 1 to 30 by assigning one model women as a leader. Those women become behalf of the HEPs and communicate with the workers about the health of all group members within a week.

The majority of UHEPs participated in FGDs reported that for the last nine to ten ears they were teaching the community on maternal health services importance not only the mother but also other member of the community. Therefore, they believed that every mother has awareness of maternal health care services. Member of UHEPs told that, "According to my catchment areas taught about UHEPs almost all in different setting not only maternal health services but also all urban health extension packages especially model family training." (UHEPs wereda 05). One WDAL said; "I prepare a meeting with all women's included in the group within a month and i present myself as an example and tell them my story. I tell them i had a safe pregnancy because of i follow all my ANC follow up properly, i gave birth at health center with the help of professionals and i follow my PNC service properly due to this i am living a healthy life and also my child."

4.7. SUMMERY OF THE FINDING

FACTORS	VARIABLE		SOURCE
DEMOGRAPHIC FACTORS	Age	Teenagers	FGD & IDI
		Students or in school girls	
	Birth Place	Women born in outside Addis Ababa come here for Searching job and live in low socio-economic status	FGD
	marital status	Single mothers or unmarried women having exposed to Unwanted pregnancy	FGD
SOCIO ECONOMIC FACTORS	Economic factors	Poor women or women have no any means of income	FGD & IDI
		Self-helped women	
	Occupation	CSWs & street vender CSWs	FGD & IDI
		House maids and daily labor	
	Place of residence	Place of stay during pregnancy or after delivery	IDI
	Lack of source of information	Women have not any means of information source	FGD & IDI
	HEW visit	HEWs unable to communicate with those women due to temporary living condition of the women	FGD & IDI
	Social support	Women have no any social support during pregnancy and after delivery	FGD & IDI
		Shame and stigma due to socially unaccepted pregnancy	
		Support of keeping another child	
NEED BASED RELATED FACTORS	wontedness of pregnancy	Pregnancy occur to teenagers, students, CSWs	FGD & IDI
	Health center related factors	Waiting time and Service provider handling especially for low socio-economic women and unmarried women	FGD & IDI
		Transport	
	Accidental labor	Due to knowledge gap	IDI

4.8. DISSCUSSION

This study indicated the utilization of maternal health service in the study area was high. Physical accessibility identified in qualitative study is one of the most important variables in health service utilization. Several studies have identified that physical proximity of health care services institutions play an important role in service utilization. In this study area which is Addis Ketema sub city have 7 governmental and private health institutions nearby area, which have a significant effect on the utilization of maternal health care services. (Mengesha et al., 2013).

Bringing health facilities closer to the community has achieved success in improving health outcomes and this has been found to be the case also in Ethiopia. However, community participation as declared during the Alma Ata declaration needs continuous investment to ensure access to and utilize the primarily health care services, structure through which community participation takes place, such as the UHEP, WDG and also know a day PHCU in Ethiopia are one means of community participation to health care facilities .this believed to able facilitate community participation, thereby improving community health seeking behavior and increasing service utilization. HEPs and WDA leaders play a key role in linking community to the health sectors.

The study revealed that antenatal care; skilled delivery and postnatal care service utilization were 93.9%, 88.9% and 89.2% respectively. This result showed higher from the from the country mini EDHS report of Antenatal care 74% skilled delivery 48% and postnatal care utilization. (2019 mini EDHS). This may due the availability of nearby health facility, higher level of education and occupation of women and their husband, women's free from any cultural and religious norms, availability of transportation and source of information and communication and might by the result include both urban and rural context of the study area. Out of the total women included in 2019 mini EDHS report of Addis Ababa, which attended at least one antenatal care visit from skilled health care provider were 96.9% this finding was approximately the same (93.9%). This may due to the availability of nearby health facilities but women attend full antenatal care visit in 2019 mini EDHS report of Addis Ababa were 81.8% much larger than the finding of this study (49.2%). This may due to higher number of women come in the area for the search of job, working condition of

women, high level of illiterate and unemployed women, due to teenage and unwanted pregnancy.

The finding of the study shows that women were delivered at home (11.1%) which much more than both 2016 EDHS (3.4 %) and 2019 mini EDHS (5.2 %) report of Addis Ababa. This might be high level of commercial sex worker lived in the area for long time, prevalence of unplanned pregnancy, social support problem, self-helped (lonely) women, unpredicted labor, ambulance service availability related problem. Service provided to the mother after delivery were the higher than 2019 mini EDHS of Addis Ababa, which is 43.3% to the mini EDHS and 49.9% were the finding of the study for those women attend skilled PNC service within 7 days after delivery.

According to this study the utilization of antenatal care service is higher than a study conducted in different urban city of Ethiopia such as Holeta (87.1%), Tigray (54%), Hossaina (87.6), and Somali city (77.4). The possible reasons to the discrepancies might be due to time difference of the study, socio economic status, population focus of the government, availability of private and governmental health facility nearby the community. The other possible explanation for the difference might due to the availability of source of information in the areas.

Postnatal care utilization of this study is higher than the research conducted in Sidama zone, Sidama region, (37.2%) (Regassa et al., 2011), Debre Markos town (33.5%), Hossaina (51.4%) and Debre Brehan town (83.8%). This might be due to both urban and rural nature of those cities, level of education of the women and their husband, level of income and working status of the mother, availability of private and governmental health facility nearby the community, mother's knowledge about maternal health services and also availability of different source of information in the House hold.

The mother level of education and level of monthly income shown positive effect on mother's skilled delivery utilization at health facilities. Age of mother during last child birth and occupation status of mother have positive effect on maternal postnatal care utilization. And also, availability of at least one means of communication in the house had a significant effect on the utilization of all the three maternal health services. This study has found that the age of mother delivered their last child, mother and their husband level of education, marital status, women Household head status and health extension workers frequency of visit have

positive effect on mother skilled antenatal care utilization.

The effect of Husband level of education (AOR= 3.594, 95% CI = 1.635 – 5.157) was stronger effect than mothers' level of education (AOR= 2.52, 95% CI = 1.529 – 4.152). Those studies which showed a positive influence of education on maternal health service utilization. The positive relationship maybe explained by the fact that educated women are more knowledgeable on the importance of maternal health services, they may have access to written and electronic source of information and educated husbands may have a better communication with their wives and willingness to discuss the use of maternal health services. They may also provide more autonomy to their wives. (Thadeus et al., nd).

The use of antenatal care services during pregnancy at health facilities was found significantly affects the use skilled delivery attendants. This may because women will be aware of the importance attending maternal health services in health facilities as they might be educated during the ANC session may other studies have found a similar result. This result shows the use of ANC is one of the strongest determinants for the use of skilled delivery attendants during delivery and postnatal care services. (Mengesha et al., 2013).

Women who are working earn money so that they can have the economic ability to pay for accessing health services. However, working status of women was found to be associated with the use of ANC services only. It is not associated with the use of skilled delivery service and PNC service utilization. This may due to high proportion of CSW in the study area might affect the lowering of ANC utilization and the absence of association may be explained because even though they are working, the decision of health spending may be made by their husbands or may be due to maternal health services free from any fee in the government health facilities. (Hagos., 2018).

Use of public media source like listening radio, watching television, reading newspaper or reading materials and assessing social media increases awareness of women on maternal health care service and other matters. In this study, use of these public media sources significantly affects the use of all the three elements of maternal health care services. This may due to the population have access at least one of those media in the house hold have high proportion of the population of the household have those media. A study conducted in Nigeria had shown that community media saturation was found to be a strong predictor of maternal health services utilization. (Babalola., 2012)

This study shows that 71 % of mothers who delivered at home utilize postnatal care services and 68.4% of mothers had antenatal care attendance. Among those mothers have antenatal care attendance at health facility, 92% were delivered by skilled health professionals and also 89.4% were use postnatal care service. In this study mother born in Addis Ababa were more likely utilized antenatal care service, skilled delivery service and skilled postnatal care services compared to the study participants born in outside Addis Ababa. This may due to knowledge and awareness about maternal health services and availability of social support.

This research suggest that professional based maternal health services is a preferred norm in Addis Ababa, this indicating that this can be overcome socio cultural barriers to facility based maternal health service usage in other part of the country (Ethiopia) (Hagos., 2018). Overall, women in this study had been convinced, through media exposure and interactions with the health system, skilled professional based maternal health service were best for both the mother and the child. This study support findings from other studies that having access to information through modern media, UHEPs and also the level of awareness of the society influence women's knowledge about the importance and all risks of maternal health service utilization.

4.9. STRENGTH AND LIMITATION OF THE STUDY

4.9.1. STRENGTH OF THE STUDY

The strength of this study lies in used a mixed study method (Qualitative and Quantitative) to triangulate the finding to increase the validity of the study.

The other strength of the study is use of Andersen health seeking behavior model that has been previously widely use in studying factors related to utilization of different health care services and also pre-testing of questionnaires before its actual use to reduced its ambiguities.

4.9.2. LIMITATION OF THE STUDY

There are some limitations of the study. The information related to demographic and socioeconomic variables could not Counterchecked for its validity and completely relied on self-reports of the respondents. On the other hand, some maternal health care services were checked by looking at the last antenatal care card to verify the information given by the participant mothers.

Since mother were asked about their last birth prior to data collection having under three years of children, recall bias might be occurred

CHAPTER FIVE

5. CONCLUSION AND RECOMMENDATION

5.1. CONCLUSION

This study demonstrated that utilization of maternal health service in women of Addis Ketema sub-city having less than three years of age children relatively higher in this study area but inadequately in general. The majority of women had at least one antenatal care visit from modern health care providers during their recent pregnancy but more than of those start their antenatal care visit after the first trimester. And a considerable number of women had less than four visits during their last child pregnancy time which is against the minimum level of care recommended by WHO pregnant mothers should attend minimally.

The magnitude of skilled antenatal and skilled delivery service utilization in Addis Ketema sub-city was lower than when it compared with the last 2019 mini EDHS data of Addis Ababa. This study shows that the most important factors influencing the utilization of maternal health care services were demographic, socio-economic and health related factors in nature. However, this does not distract from the relevance of service-related factor, especially. The demographic and socio-economic related factors identified in this study including age of mother, education level of mother and their husband, knowledge about maternal health services, means of communication, monthly income of the house and soon.

The coverage of full maternal health care service in this study was found to be the target city government plan. Maternal age, education level of mother and their husband, ownership if the house and means of communication used by the mother were factors significantly associated with more than one element of maternal health service utilization. Reinforcing the existing strategies for increase mother's level of awareness and utilization. Skilled antenatal care service during pregnancy is a major predictor of subsequent use of skilled delivery and postnatal service, so priority should be given to mother skilled antenatal care service use. For this reason, particular attention has to be given to factors affecting maternal antenatal care utilization such as education of mother and their husband, empowerment of women and awareness of mother on maternal health services. It is recommended that better effort should be exerted to health education of mother by health extension workers for all women, giving special attention to teenagers, single women's housemaids, daily labor and CSWs women and women live in chip bed renting house for daily base.

Education of mother and their husband, means of communication the mother used mother awareness about MHS and occupation status of mother is the strongest determinants of the use of MHSs. Service utilization increase consistently as education level of women and their husband's increases. There is an inequality in service utilization among women in grouped in those different variables.

5.2.RECOMMENDATION

Intervention on behavior change communication through the HEP should be enhanced the utilization of skilled Maternal health service in Ethiopia over the past 9 to 10 years. So, the HEP needs to be strengthened through a well-functioning and feasible referral system. The allocation of time to different HEP packages by UHEPs should be discussed to maximize their contribution to the provision of utilization of MHS.

urban health extension workers should include all women's in their catchment area not only for the head mother if the house but also given special attention for housemaids, commercial sex workers and teenager girls for improving the status of women by expanding educational opportunity, strengthening health promotion on maternal health services about the importance and benefits through mass media and community health education by UHEPs to improving maternal health service utilizations.

In general, the study finding shows that determinants of MHS utilization are multi-sectorial approach to tackle it. The Health, Education, Social service, women and child affairs, employment and other sectors should be involved for long term improvement in service utilization.

REFERENCE

- Abebe, F., Berehanu, Y., & Girma, B. (2012). Factors associated with home delivery in Bahir Dar, Ethiopia. *BMC Res Note*. 2012, 5: 653-10.1186/1756-0500-5-653.
- Abebe,E., Gedefaw,G., & Seid,A. (2019). Association between antenatal care follow-up and institutional delivery service utilization. *Journal of BMC Public Health*, 19(1472).
- Ahmed, S., Andreea, A, Creanga, M., Gillespie, D.G., & Tsui A.O. (2010). Economic status, education and Empowerment. Implication for maternal health service utilization in developing countries. *PLOS one*, 2010, 5(6): e11190-10.1371/journal. Pone. 0011190.
- Alematehu,M., Gebrehiwot,T.G., & Medhanyie,A.A. (2020). Utilization and factor associated with antenatal car, delivery and postnatal care services in Tigray region. *Journal of BMC pregnancy childbirth*, 20 (334).
- Amadi., S.U., (2015). Demographic and socioeconomic factors affecting maternal health care service utilization in Igbo city, Nigeria. 2015.
- Angore,B.N., Bisetegen,E.G., & Tufa,S. (2018). Determinants of postnatal care utilization in urban community among women in Debere Birehan town, Northern Showa, Ethiopia. *JHealth popu nutr*, 37(10). <http://www.doi.org/10.1186/s41043-018-0140-6>
- Babalola, S., & Fatusi, A. (2009). Determinants of use of maternal health services in Nigeria. Looking beyond individual and household factors. *BMC Pregnancy Child birth*. 2009,9:43-10.1186/1471-2393-9-43.
- Birmeta,k., Dibaba,Y., & Woldeyohannes,D. (2013). Determinnants of Maternal Health Care Utilization in Holeta Town, Central Ethiopia. *Journal of BMC Health Serv Res*, 13(256).
- CSA, & FMOH. (2014). Health service development program IV. Addis Ababa. CSA & FMOH. <http://www.FMOH.com/HSDPIV>
- CSA, & ICF International. (2017). Ethiopia Demographic and Health survey 2016. Rockville, Maryland, USA: Central Statistical Agency and ICF International.
- EPHI and ICF International. (2017). Ethiopia Demographic and Health survey 2019. Rockville, Maryland, USA: Central Statistical Agency and ICF International.
- Fekadu, M., Fikirte, T., Manaye, K., & Walelegn, W. (26 April 2014). Knowledge Perception Utilization of Postnatal Care of Mother in Gonder zuriya District, Ethiopia. *Journal of Maternal child health*. 18(10). 2341-2351. Retrieved from

<http://www.10.1007/s10995-014-1474-3>

- Gebrehiwot,T., Goicolea,L., & Tsegay,Y. (2013). Determinants of Antenatal and Delivery Care Utilization in Tigray region, Ethiopia. *International Journal of Equity Health*, 12(30). <http://www.doi.org/10.1186/1475-9276-12-30>
- Gumessa,T., meseganaw,F., & Alemayeu,W. (2015). Neonatal Care Practice and affecting in south west Ethiopia. *BMC International Health and Human Rights*
- Hagos, S., Shaweno, D., Assegid, M., Mekonnen, A., Afewerk, M.F., & Ahemed. S. (2019). Utilization of institutional delivery service at Wukro and Butajira district in the Nothern & Southcentral Ethiopia: A community based cross sectional study. *BMC Pregnancy Child birth*. 2012;12(1):74.
- Limeneh, M.A., Endale, Z.M., & Dachew, B.A. (2016). Postnatal care utilization and associated factor among women who gave birth in the last 12 months prior to the study in Debre Markos town, Northwestern Ethiopia. *International Journal of reproductive Medicine*.
- Mengesha, Z.M., Bikd, G.S., Ayele, T.A., Tessema, G.A., & Koye, D.N. (2013). Determinants of skilledvattendance for delivery in Northwest Ethiopia. A community based nested case control study. *BMC Public Health* 2013, 13: 130 - 10.1186/1471 - 2458 - 13 - 130.
- Mirgissa,K., Girma,T., Muluken,G., & Israel,M. (2017). Maternal Health Service Utilization in urban slums of selected town in Ethiopia. *Ethiopia. J Health dev*. 31(2).
- Mohammed,A., Sodere,N., Tewodros, M., & Wintanna,T. (2018). Prevalence and Determinants of Complete Postnatal Care Service in Northern Showa, Ethiopia. *Journal of pregnancy*. <http://www.doi.org/10.1155/2018/8625437>
- Njoku, B.I., Bassey, G.R., Ihekwaba, I.O. & Nkwocha, C.R. (2012). Focused Antenatal Care: Implication for Midwifery Practice. *International Professional Nursing Journal*, 10 (1)
- Rana,D., & Dikaios,S. (2020). Barriers to accessing Maternal Health Care in low income countries in Africa. *International journal of environmental research and public health*. <http://www.mdpi.com/journal/ijerph>
- Regassa, N. Antenatal and Postnatal care service utilization in southern Ethiopia. (2011). A Population based study. *Africa Health Science*. 11(3).
- Sara,F.V., Britt,P.T., Dereje,N., Abebe,G., Abebech,T., Henrik,F.L., & Vibeke,R. (2014). Anti

- Natal Care strengthening in Jimma town. Journal of environmental research and public health. <http://www.Dx.doi.org/10.1155/2014/945164>
- Sunil.A. (n.d). Demographic and socio- economic factor affecting antenatal Care utilization in Nepal. Journal of Development and Administrative Studies. 24(1-2). 71-87.
- Tarekegn,S.M., Lieberman,L.S., & Giedraitis,V. (2014). Determinants of maternal health association in Ethiopia. Journal of BMC Pregnancy child health. 14(16).
- Thadeus, M. (nd) Too far to walk; maternal mortality in context. SOC SCi Med.1994, 38(8): 1109 – 1120
- UNFPA, (2004); State of the World’s Population on maternal health, New York. UNFPA.
- UNICEF. (2019). Child Mortality. New York. United Nation Children’s Fund. Retrieved from <https://data.unicef.org/topic/child-survival/under-five-mortality/2019>
- UNICEF. (2020). Delivery Care Data. New York. UNICEF. Retrieved from <https://data.unicef.org/topic/maternal health/ delivery-care/2020>
- United nation. (2012). World urbanization prospects. United nation. Retrieved from <http://www.UN.org/topic/World-urbanization-prospects/2021>
- USAID. (2020). Maternal and Child Health in Ethiopia. USA. USAID. Retrieved from <http://www.usaid.gov/ethiopia/global-health/maternal-and-child-health/2020>
- WHO (2011). Health topics: Maternal health. World Health Organization [Online] Available from: <http://www.who.int/topics/maternal health/en> Accessed: (December 11, 2011).
- WHO. (2019). Key Fact of Maternal Mortality. Geneva. WHO. Retrieved from <https://www.who.int/news-room/fact-sheets/detail/maternal-mortality/2019>
- WHO. (2019). Newborn For Africa. Geneva. WHO. Retrieved from <https://www.afro.who.int/health-topics/newborn/2019>
- WHO. World Bank., UNFPA., & UNICEF. (2020). Trends in Maternal Mortality From 2000-2019 WHO, UNICEF, UNFPA and the World Bank estimates. Geneva. Retrieved from <http://www.who.int/news-room/fact-sheets/detail/maternalmortality/2020>
- Zeine, A., Mirkuzie, W. & Shimeles, O. (2010). Factors influencing antenatal care services utilization in Hadiya Zone. Ethiopian Journal of Health Sciences 20 (2)

ANNEAX I;- INFORMATION SHEET: ENGLISH VERSION

Information sheet on assessment of prevalence and demographic and socio-economic factors affecting maternal health service utilization

Introduction

I will conduct a research work on assessment of prevalence and factor affecting maternal health service utilization among reproductive aged women in Addis ketema sub city, Addis Ababa, Ethiopia. The information given about yourself will be confidential and the participation in this study will be only by your agreement I ask to you given to us by your signature. You are free to ask any question at any time and the participant has a right to change his response at any time and stop his participation at any moment.

Aim of the study

Maternal and child mortality in Ethiopia is very high this mostly related to low level of maternal health service utilization. This low level of utilization due to different reason, so this study tries to find out the factor affecting the utilization maternal health service.

Benefit

You will no direct benefits from participating in this research. However, your response may help us to learn more about factor affecting maternal health and government body and policy makers use this research work to know the existing condition of maternal health service utilization.

Confidentiality

Your survey answer will be handled by highly secret, and your information will put by identification code without stating your name or phone number. Therefore, your response will remain anonymous. No one will able identify you or your answer, and no one will know whether or not you participate in the study. The finding will present as a collective term scientifically

Contact

If you have question at any time about the study or the procedure, you may contact the research investigator Ato Belete Tekola via; -

Tel: - 0913 006939

Email: - beletetekola666@gmail.com

ANNEAX II; - CONSENT FORM: ENGLISH VERSION

I am getting full information about the study conducting about on assessment of prevalence and factor affecting maternal health service utilization among reproductive aged women in Addis ketema sub city, Addis Ababa, Ethiopia. and I am also understanding my response will remain anonymous, and I have a right to stop my participation from the study at any time and also, I have a right to rise any question at any time when I need to ask.so, I am volunteer to participate in the study.

Signature_____ Date _____ Phone No_____

Data collector

Name _____

Signature_____

Date _____

ANNEAX III; - QUESTIONNAIRE FORM: ENGLISH VERSION

FILTER QUESTION

1. How long the family lived in this house; - For _____ month

If the answer greater than 3 or for 3 months continue.

R.No	Questions	Response	Codes	Remark
DEMOGRAPHIC AND SOCIO-ECONOMIC QUESTIONS				
1	What is your age;	_____ Year		
2	Location; - _____	Wereda _____ Kebele _____		
3	The age of the last child	_____ YEAR		
4	Education level of mother	Illiterate Read and write Primary education Secondary education More than secondary	1 2 3 4 5	
5	What is mother occupation	House wife Private (self non formal work) Private employee Government employer Safety net Merchant Other specify	1 2 3 4 5 6 7 99	
6	What is mother Religion	Orthodox Muslim Catholic Protestant	1 2 3 4	

		Other, specify _____	99	
7	Birth Place of the mother	Addis Ababa Outside Addis Ababa	1 2	
8	Current Marital status	Never married Married Living together Divorced/ Separated Widowed	1 2 3 4 5	If say 1 skip to Q 11
9	Husband education level	Illiterate Read and write Primary education Secondary education More than secondary	1 2 3 4 5	
10	What is husband occupation	None Merchant Private (self non formal work) Daily labor Driver Private employer Government employer Other specify	1 2 3 4 5 6 7 99	
11	Who is the head of the house hold?	Partner Respondent Parents(mother/father) Other specify	1 2 3 4	
12	Total House hold income	_____ <u>birr</u>		
13	House ownership	Private rental Government rental Private	1 2 3	

		Other, specify	99	
14	Do you have any family member in your household who received formal education	Yes No	1 2	If say 2 skips to Q 16
15	What is his/her education level	Illiterate Read and write Primary education Secondary education More than secondary	1 2 3 4 5	
16	Parity	_____ (Specify in number)		
17	What is the birth order of the last child	_____ (Write in number)		
18	The last child was planned	Yes No	1 2	
19	Has anyone ever thought to you about maternal health	Yes No	1 2	If say 2 skip to Q 21
20	By whom were you thought about maternal health services	By HEW By health care provider Community health agent By TBA By family member/close relatives From mass media WDA leader/member Other specify	1 2 3 4 5 6 7 8 99	
21	Frequency of health extension workers	By _____ _____ days	1 2	

	visiting the house hold	She never come		
22	Do you have any means of communication (Mass Media) in your house hold	YES NO	1 2	If say 2 skip to Q 24
23	Which means of communication or mass media you used with in the last 7 days	Read news paper Watch TV Listen Radio Internet access Other, specify _____	1 2 3 4 99	
24	Are you consume drinking Alcohol with in the last one month (For the mother)	YES NO	1 2	
25	Are you husband consume drinking Alcohol with in the last one month	YES NO	1 2	
26	Do you know maternal health services given in the health facility	YES NO	1 2	
27	Are you take model family training given by HEWs for 4 months	YES NO	1 2	
MATERNAL HEALTH CARE SERVICE-RELATED QUESTION				
ANC SERVICE-RELATED QUESTIONS				
28	Do you attend ANC service during any of your previous pregnancy before the	YES NO Have only one pregnancy	1 2 3	

		Being in good health/absence of illness	3 4	
		Work load	5	
		Waiting time is too long at ANC service	6 7	
		Mistreatment of service provider	8 9	
		Husband disapproval	10	
		I don't need such services	11	
		Religious reason	12	
		Feeling shame	13	
		Other specify	99	
DELIVERY SERVICE-RELATED QUESTION				
36	Place of delivery for the last child	Health facility Home Other specify _____	1 2 99	If say 2 skip to Q 38
37	Reason of delivery at the health facility	Save mother life Health facility is clean Bleeding will not occur Problem related to placenta Health facility support labor Other, specify _____ _____	1 2 3 4 5 99	
38	Reason of home delivery	Close relative are near by Dis like mis-treatment of health worker More trust on other than health professional Transport problem Labor was smooth Other, specify _____	1 2 3 4 5 6 7 99	

PNC SERVICE-RELATED QUESTION				
39	Did you have any checkup after delivery your last child	YES NO DON'T KNOW	1 2 3	If say 2 skip to Q 41
40	When you go to health facility after delivery	After _____ days		
41	Reason of not attending PNC service	Being at a good health condition Absence of illness Lack of time Absence or cost of transport Lack of guardians for child care Lack awareness Husband disapproval Poor quality service No reason Other, specify	1 2 3 4 5 6 7 8 9 99	
42	History of home delivery	YES NO DON'T KNOW	1 2 3	
43	HISTORY of PNC service before the last birth within 2 days	YES NO HAVE ONLY ONE BIRTH DON'T KNOW	1 2 3 4	

THANK YOU FOR YOUR TIME

ANNEAX IV; - INFORMATION SHEET: AMHARIC VERSION

መረጃ ለጥናቱ ተሳታፊዎች

መግቢያ

እኔ Assessment of Prevalence and Factor Affecting Maternal Health Service Utilization Among Reproductive Aged Women in Addis Ketema Sub City, Addis Ababa, Ethiopia በሚል ርዕስ ጥናት እያከናወንኩ ሲሆን የጥናቱን አላማ አጥኚው ወይም መረጃ ሰብሳቢው በሚስጥር እንደሚይዝ ሀላፊነት እንደሆነ እንገልጸዎታለን። ፍቃደኝነትን በጽሁፍ ከመስጠት በፊት ስለጥናቱ በቂ መረጃ ማግኘት እና የፈለጉትን ጥያቄ ማቅረብ ይችላሉ። በዚህ ጥናት መሳተፍ ሙሉ በሙሉ በእርስዎ ፈቃደኝነት ላይ የተመሰረተ ሲሆን ሀሳብዎን በሚፈልጉበት ጊዜ የመቀየር መብት አለዎት።

የጥናቱ አላማ

እንደሚታወቀው በሀገራችን ኢትዮጵያ በርካታ እናቶች ከወሊድ ጋር በተያያዘ እየሞቱ እና ለህመምና ስቃይ እየተዳረጉ ይገኛሉ ይህም ሊሆን የቻለው በእርግዝና ወቅት እናት በቂ የሆነ የባለሙያ ክትትልና ድጋፍ ባለማግኘት እና ከዚህ ጋር በተያያዘ ምክንያቶች በመሆኑ ይህ የእናቶችን የህፃናት ሞት መንስኤ የሆነውን የእናቶች ጤና አገልግሎት የአተቃቀም ክፍተት ምክንያቶች ምን እንደሆኑ ለማወቅና በመንግስት እና በህግ አውጪው አካል እርምጃ እና ማስተካከያ እንዲወሰድባቸው ለማድረግ እርስዎ የነበረበትን ተሞክሮ እንደነግሩን ይህንን መጠይቅ እናከናውናለን።

ጉርሻ/ማካካሻ

እርስዎ በዚህ ጥናት በመሳተፍዎ ምንም አይነት ክፍያ አያገኙም። ነገር ግን በዚህ ጥናት በሚገኘው ውጤት ተመርኩዘው መንግስት እና የህግ አውጪው አካላት የእናቶች ጤና አገልግሎት አሰጣጥ ላይ ለሚወስዱት እርምጃ እርስዎ የበኩልዎን አስተዋፅኦ አበረከቱ ማለት ነው።

ከመጠይቁ ለማቋረጥ ተሳታፊዎች ያላቸው መብት

የእርስዎ ተሳትፎ ሙሉ ለሙሉ በፋቃደኝነት ላይ የተመሰረተ ነው። ፈቃደኝነትንም በማንኛውም ጊዜ ማቋተጥ ይችላሉ። ከጥናቱ ጋር የተያያዘ የፈለጉትን ያህል ጥያቄ መጠየቅ ይችላሉ። እኛም የተቻለንን ያህል ለጥያቄዎ ምላሽ እንሰጣለን።

ሚስጥር ጠባቂነት

የእርስዎ ማንኛውም መረጃ በሚስጥር እንደዘለን። እርስዎ በፅሁፍ ካልፈቀዱ በስተቀር እርስዎን የሚገልፅ ምንም አይነት መረጃ የማይወጣ ሲሆን ከእርስዎ ጋር የተያያዘበስምዎት ሳይሆን በመለያ ቁጥር (ኮድ) ተመዝግቦ ይያዛል። ከእርስዎ የሚሰበሰበው መረጃምለዚሁ ጥናት ብቻ ይውላል። የጥናቱ ውጤት በግለሰብ ደረጃ ሳይሆን በተሳተፉ የህብረተሰብ አካላት ስብስብ ውጤት ሳይንሳዊ በሆነ መልኩ ሊታተም ይችላል።

ስምምነት

ስምምነትዎን በፈርማዎ እንዲያረጋግጡ ይጠበቃል። ይህም በዚህ ጥናት የሚሳተፉት በሙሉ መረዳት እና በፍቃደኝነት መሆኑን ለማረጋገጥ ነው። ይህ ጥናት በአዲስ አበባ ዩኒቨርሲቲ እና በአዲስ ከተማ ክፍለ ከተማ ጤና ጽ/ቤት እንዲከናወን ፍቃድ ያገኘ ሲሆን ማንኛውም ሰው ስምምነቱ ወይም ፈቃደኝነቱ ሳይረጋገጥ በዚህ መጠይቅ ውስጥ መሳተፍ የለበትም። ስለዚህ ጥናት የፈለጉትን ያህል መረጃ የማግኘት መብት አለዎት።

የአሰራር ሁኔታ

እርስዎ በጥናቱ ለመሳተፍ ፈቃደኛ ከሆኑ ስምምነትዎን በፅሁፍ እንዲገልፁ ይጠበቃል። ከዛም ስለ እርስዎ እና ስለ እናቶች ጤና አገልግሎቶች ጋር በተያያዘ ጥቂት ጥያቄዎች እናቀርብሎታለን። ይህም ስለ እርስዎ እና ከ 3 ወር በታች ስላለው የመጨረሻ ልጆች ላይ የሚያተኩር ይሆናል በአጠቃላይ መጠይቁ 20ደቂቃ ይፈጃል።

ለተጨማሪ መረጃ

ስለዚህ ጥናት የበለጠ ተጨማሪ መረጃ ማግኘት ከፈለጉ የጥናቱ ባለቤት አቶ በለጠ ተኮላን ከዚህ በታች ባለው መንገዶች በማንኛውም ጊዜ እና ሰዓት ይችላሉ።

ስልክ:- 0913 006939

ኢሜል:- beletetekola666@gmail.com

ANNEAX V; - CONSENT FORM: AMHARIC VERSION

ስምምነትን መግለጫ ፎርም

Assessment of Prevalence and Factor Affecting Maternal Health Service Utilization Among Reproductive Aged Women in Addis Ketema Sub City, Addis Ababa, Ethiopia በሚል ርዕስ ስለሚከናወነው ስለዚህ የጥናት ስራ በቂ መረጃ አግኝቻለው። ከእኔ የሚገኘው ማንኛውም መረጃ ሙሉ በሙሉ በሚስጥር እንደሚጠበቅ ተረድቻለው። በተጨማሪም ፈቃደኛ ካልሆንኩ ከዚህ ጥናት በፈለኩት ጊዜ መውጣት እና ማቋረጥ እንደምችል ተረድቻለው። ከጥናቱ ጋር በተያያዘ ጥያቄዎችን ለማቅረብ እንዳለኝ የተረዳው ሲሆን በቂም ማብራሪያ አግኝቻለው። ስለሆነም እኔ በዚህ ጥናት ላይ በሙሉ ፈቃደኝነት ለመሳተፍ ስምምነቴን በፊርማዬ አረጋግጣለው።

ፊርማ _____

ቀን _____

ስልክ ቁጥር _____

ስምምነቴን ያስፈለመው መረጃ ሰብሳቢ

ስም _____

ቀን _____

ፊርማ _____

ANNEAX VI; - QUESTIONNAIRE FORM: AMHARIC VERSION

ተ.ቁ	ጥያቄዎች	መልሶች	ከድ	Remark
1	እድሜ	<u>ዓመት</u>		
2	አድራሻ	ወረዳ _____ ቀበሌ _____		
3	የመጨረሻ ልጅ እድሜ	_____ ዓመት		
4	የእናት የትምህርት ደረጃ	ያልተማረች ማንበብና መጻፍ የመጀመሪያ ደረጃ (ከ 1-8 ክፍል) ሁለተኛ ደረጃ (ከ9 – 12 ክፍል) ከ2ኛ ደረጃ በላይ	1 2 3 4 5	
5	የእናት የስራ ሄኔታ	የቤት እመቤት የግል ስራ (መደበኛ ያልሆነ) የግል ተቀጣሪ የመንግስት ተቀጣሪ ሴፍቲ ኔት ነጋዴ ሌላ(ይገለጹ) _____	1 2 3 4 5 6 99	
6	ሀይማኖት	ኦርቶዶክስ ሙስሊም ካቶሊክ ፕሮቴስታንት ሌላ(ይገለጹ) _____	1 2 3 4 99	

7	የእናት የትውልድ ስፍራ	አዲስ አበባ ከአዲስ አበባ ውጪ	1 2	
8	የጋብቻ ሁኔታ	ያላገባች ያገባች አብሮ የሚኖሩ (ያለ ህጋዊ ጋብቻ) በፍቺ የተለያዩ የሞተባት	1 2 3 4 5	መልሱ 1 ከሆነ ወደ ተ.ቁ 11 ይለፉ
9	የባል የትምህርት ደረጃ	ያልተማረች ማንበብና መጻፍ የመጀመሪያ ደረጃ (ከ 1-8 ክፍል) ሁለተኛ ደረጃ (ከ 9 – 12 ክፍል) ከ2ኛ ደረጃ በላይ	1 2 3 4 5	
10	የባል የስራ ሁኔታ	ስራ አጥ ነጋዴ የግል ስራ (መደበኛ ያልሆነ) የቀን ስራተኛ ሹፊር የግል ተቀጣሪ የመንግስት ስራተኛ ሌላ(ይገለፅ)	1 2 3 4 5 6 7 99	
11	የቤቱ ሀላፊ ማነው	የባል ወይም የሚስት ቤተሰብ እማወራዋ አባወራው ሌላ ካለ (ይገለፅ)_____	1 2 3 99	
12	አጠቃላይ የቤተሰብ ገቢ በአማካይ ስንት ይሆናል	_____ ብር		

13	የቤት ባለቤትነት	የግል ከግለሰብ ተከራይ ከመንግስት ተከራይ ሌላ(ይገለጹ)_____	1 2 3 99	
14	ቤት ውስጥ ሌላ መሰረታዊ ትምህርት የተማረ ሰው አለ	አዎ የለም	1 2	መልሱ 2 ከሆነ ወደ ተ.ቁ 16 ይለፉ
15	እስከ ስንተኛ ደረጃ የተማረ ነው (ከአንድ በላይ ካለ የበለጠው ይወሰድ)	አንደኛ ደረጃ ሁለተኛ ደረጃ ከ12 በላይ ዲግሪና ከዛ በላይ	1 2 3 4	
16	እርግዝና በህይወት ዘመንሽ ስንት ጊዜ ተከስቶ ያውቃል	_____ (በቁጥር ይገለጹ)		
17	የመጨረሻ ልጅ ስንተኛ ልጆች ነው	_____ (በቁጥር ይገለጹ)		
18	የመጨረሻ ልጅሽ እርግዝና አስበሽበት እና የታቀደ ነበር	አዎ ያልታሰበ	1 2	
19	ከዚህ በፊት ስለ እናቶች ጤና አገልግሎት ሰምተሽ ታውቂያለሽ	አዎ አላውቅም	1 2	
20	ከማን/ከምን ሰማሽ	ከጤና ኤክስቴንሽን ባለሙያዎ ጤና ተቋም ባለሙያዎች ከልምድ አዋላጆች	1 2 3	

		ከቤተሰብ አባል /ከቅርብ ዳደኛ ከሴት ልማት ቡድን መሪዎች ሌላ(ይገለፅ)	4 5 99	
21	የጤና ሌክስቴንሽን ባለሙያዎ በየሰንት ጊዜ ትመጣለች	በ _____ _____ ጊዜ መታ አታውቅም	2	
22	ቤት ውስጥ መረጃ ማግኛ መንገዶች አሉ	አዎ የለም	1 2	መልሱ 2 ከሆነ ወደ ተ.ቁ 24 ይለፉ
23	ባለፉት 7 ቀናት ውስጥ የትኛውን የመረጃ ማግኛ መንገድ ተጠቅመዋል	ጋዜጣ ቴሌቪዥን ራዲዮ ምህበራዊ ድህረገፅ ሌላ(ይገለፅ) _____	1 2 3 4 99	
24	በዚህ አንድ ወር ውስጥ የአልኮል መጠጥ ተጠቅመው ነበር	አዎ አያውቅም	1 2	
25	ባለቤትሽ በዚህ አንድ ወር ውስጥ የአልኮል መጠጥ ተጠቅመው ነበር	አዎ አያውቅም	1 2	
26	የእናቶች ጤና አገልግሎቶች ምንምን እንደሆኑ ያውቃሉ	አዎ አላውቅም	1 2	
27	በጤና እክስቴንሽን	አዎ	1	

	ባለሙያዎ ለ 4 ወር የሚሰጠውን ሞዴል ቤተሰብ ትምህርት ተምረው ተመርቀዋል	አልተመረኩም	2	
28	ከመጨረሻው ልጅ በፊት በነበሩ ልጆች የእርግዝና ክትትል ነበሮት	አዎ አልነበረኝም	1 2	
29	ለመጨረሻው ልጅ እርግዝና ወቅት ክትትል ያደርጉ ነበር	አዎ አልነበረኝም	1 2	መልሱ 2 ከሆነ ወደ ተ.ቁ 35 ይለፉ
30	ክትትል ስትጀምሩ የስንት ወር ነፍሰጡር ነበረኝ	የ_____ ወር		
31	ስንት ጊዜ ክትትል ነበረኝ	1 ጊዜ 2 ጊዜ 3 ጊዜ 4 እና ከዛ በላይ ጊዜ	1 2 3 4	
32	ባለቤትሽ ክትትል ባደረግሽባቸው ጊዜያት ሁሉ አብሮሽ ይሆን ነበር	አዎ አንዳንዴ አልተገኘም	1 2 3	
33	የት ነበር እርግዝና ክትትል ለመጨረሻ ልጅ ታደርጊ የነበረው	በጤና ጣቢያ በመንግስት ሆስፒታል በግል ጤና ተቋም ቤት ውስጥ	1 2 3 4	

		ሌላ ይገለፅ_____	99	
34	ክትትል ለመጀመር ምክንያት ምን ነበር	የጤና ችግር ገጥሞኝ ወደ ጤና ተቋም ሂጅ ለእርግዝና ምርመራ ሂጅ ከዚህ በፊት በነበሩኝ እርግዝናዎች ምክንያት ያለመከላከያ ግንኙነት ፈጽሜ ስለነበር ጥቅሙን ስለማውቅ ሌላ ይገለፅ_____	1 2 3 4 5 99	
35	4 ጊዜ ክትትል ያለደረግሽበት ምክንያት ምንድነው	ግንዛቤው የለኝም ይህን ያህል ክትትል አስፈላጊ እንደነበር አላውቅም ህመም አልነበረኝም(ጤናኛ እርግዝና ነበር) በጤና ተቋም አገልግሎቱን ለማግኘት ሰልፍ አለ ባለሙያዎቹ ያመናጭቃሉ ባለቤቴ ፈቃደኛ አልነበረም ነፍሰጡር እንደሆነ ሰው እንዳያውቅ ክትትል ማድረግ አልፈልግም ሀይማኖቴ አይፈቅድም ሌላ ካለ ይገለፅ_____	1 2 3 4 5 6 7 8 9 99	
36	የመጨረሻ ልጆችን የት ነው የወለዱት	እቤት ውስጥ በጤና ተቋም ሌላ ካለ ይገለፅ_____	1 2 99	መልሱ 1 ከሆነ ወደ ተ.ቁ 38 ይለፉ

37	<p>ለምን በጤና ተቋም ለመውለድ ፈለጉ</p>	<p>የእናቶች ሞትን ፍራቻ ጤና ተቋም ንፅህና ያለው በመሆኑ በወሊድ ወቅት የሚፈጠር ችግርን ለመከላከል የእንግዲ ወይን መጣያ በታ ስለሌለ የጤና ባለሙያ እገዛ አስፈላጊ በመሆኑ በቅርብ ጤና ተቋም ስላለ በቤተሰብ/በቅር ዳደኛ ግፊት ሌላ ካለ ይገለፅ _____</p>	<p>1 2 3 4 5 6 7 99</p>	
38	<p>በቤት ውስጥ ለመውለድ የቻልሽበት ምክንያት</p>	<p>አገልግሎት መስጠት የሚችል የቅተርብ ሰው ነበር በልምድ አዋላጅ እምነት ስላለኝ የጤና ባለሙያዎች አያያዝ ስለልተመቸኝ የምጥ ሰዓት ወደ ጤና ተቋም ለመሄድ አይመችም ቀላል ወሊድ ስለነበር የትራንስፖርት ችግር አጋጥሞኝ ሌላ ካለ ይገለፅ</p>	<p>1 2 3 4 5 6 99</p>	
39	<p>የመጨረሻ ልጅሽን ከወለድሽ በኋላ ክትትል አድርገሻል</p>	<p>አዎ አላደረኩም</p>	<p>1 2</p>	<p>መልሱ 2 ከሆነ ወደ ተ.ቁ 41 ይለፉ</p>
40	<p>ከወለድሽ ከስንት ቀን በኋላ ወደ ጤና ተቋም ሄድሽ</p>	<p>ከ _____ ቀን በኋላ</p>		

41	ለምንድነው በቀጠሮ	ስላላመመኝ	1	
	መሰረት ለክትትል	የጤንነት ስሜት እየተሰማኝ ስለነበር	2	
	ያልሄድኸው	ሰዓት አልነበረኝም	3	
		የትራንስፖርት ችግር ነበረብኝ	4	
		የሚወስደኝ ሰው አልነበረኝም	5	
		ሌሎች ልጆቼን/ቤቴን ሚጠብቅ ሰው አልነበረኝም	6	
		ባለቤቴ አልፈቀደም	7	
		በጤና ተቋሙ አገልግሎት አልተመቸኝም	8	
		ምንም ምክንያት የለኝም	9	
	ሌላ ካላ ይገለፅ	99		
42	ከመጨረሻው ልጅ	አዎ	1	
	በፊት ባሉኝ ልጆች ቤት	አልነበረኝም	2	
	ውስጥ የመውለድ	አንድ ልጅ ነው ያለኝ	3	
	አጋጣቢ ነበረኝ			
42	ከመጨረሻው ልጅ	አዎ	1	
	በፊት ባሉኝ ልጆች በ2	አልሄድኩም	2	
	ቀን ውስጥ ወደ ጤና	አንድ ልጅ ነው ያለኝ	3	
	ተቋም ሄደኝ	አላስታውስም	4	
	ታውቂያለኝ			

ስለሰውን ጊዜ ከልብ እናመሰግናለን!!!

ANNEX VII: -INDEPTH INTERVIEW SELECTION CRITERIA FORM

Addis Ababa university school of developmental study department of
population study in Reproductive Health

Individual interview for reproductive age women those has less than 3 years of
age children in Addis Ketema sub-city, Addis Ababa, Ethiopia

No	Introduction and demographic information	Answer
1	Age	
2	Education	
3	Occupation	
4	Place of birth	
5	Marital status	
6	Age of last birth	
7	Use of ANC service	
8	Place of delivery	
9	Use of PNC service	

ANNEX VIII: - QUESTIONNAIRE FOR INTERVIEW

1. Do you know maternal health services providing in the health facility provide by skilled health professional?
2. Do you know the importance of maternal health services providing in the health facility provide by skilled health professional?
3. What is the factors that pregnant mother not fully attend ante natal care service providing in the health facility by health profession?
4. What is the factor that mothers preferred delivered in their home rather than getting professional skilled personal providing in the health facility?
5. WHAT do you think that mothers not attend post-natal care service providing in health facility given by health professional within 2 days after delivery?
6. What is your motive to use or not use those services during your last child such as full antenatal care service, skilled birth attendance service and post-natal care service within 2 days after delivery?

Professional personal Focus group dissection about demographic and socio-economic factors affecting maternal health service utilization those reproductive age women those have under 3 years of age children in Addis Ketema sub-city, Addis Ababa, Ethiopia

No	Introduction and professional composition	Number	Remark
1	Professional midwives	2	
2	Health extension worker	2	
3	Wereda Family health officer	2	
4	Wereda Women and child office officers	2	
5	Women development army leaders	2	

Annex IX: - QUESTIONNAIRE FOR FOCUS GROUP DISCUSSION

Q1 what do you think about the reason pregnant mother not fully attend ante natal care service providing in the health facility by health profession?

Q2 what do you think about the reason pregnant mother preferred delivered in their home rather than get professional personal providing in the health facility

Q3 what do you think about mother not attend post-natal care service providing in health facility given by health professional within 2 days after delivery?

Q4 what do you think about pregnant mother use ante natal care service providing in the health facility by health profession?

Q5 what do you think about the reason pregnant mother preferred delivered in health facility given by skilled health personal?

Q6 what do you think about mother properly attend post-natal care service providing in health facility given by health professional within 2 days after delivery?

