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SOCIO-CULTURAL DETERMINANTS AND MISSED OPPORTUNITIES OF MATERNAL HEALTHCARE SERVICES IN ETHIOPIA

by

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D E D I C A T I O N

My father; Yusuf, Mussa Abdulahi, for his unwavering support and guidance

My wife, for her unconditional love, understanding and emotional support; thank you for the support, care, and guidance, and also for believing in me.

My brothers, Jemal Mussa, without your love, kindness, support and valuable help, I would not be here today.

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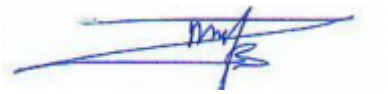
DECLARATION

I declare that **SOCIO-CULTURAL DETERMINANTS AND MISSED OPPORTUNITIES OF MATERNAL HEALTHCARE SERVICES IN ETHIOPIA** is my own work and that the sources that I have used or quoted have been indicated and acknowledged by means of complete reference and that this work has not been submitted before for any other degree at any other institution.



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IBSA MUSSA ABDULAHIDATE

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ABSTRACT

Maternal deaths in Ethiopia are mainly due to complications of pregnancy and delivery. The socio-cultural contexts under which these pregnancies and deliveries occur that pave the way for these complications and mortality. In Ethiopia, the maternal mortality ratio had been 353/100,000 live births in 2015. Therefore, the purposes of this study were to examine, and describe the socio-cultural determinants and missed opportunities of maternal health care in Eastern Ethiopia. The study was conducted in selected districts of Grawa, Chelenko and Haramaya Woreda, East Hararghe, Oromia National Regional State, Ethiopia.

A community-based survey involving pregnant women in their third trimester and women who gave birth in the last five years, husbands, mothers-in-law, sisters-in-law, health workers, religious and community leaders were conducted between September up to December 2017. A systematic sampling technique was used to get a total of 422 study participants for quantitative and 24 FGD participants to qualitative study were adopted using triangulation of data collection. Pre-tested and structured questionnaire was used to collect relevant data. The main instrument used for quantitative data collection was the structured questionnaire, specifically in-depth interview methods. Bivariate and Multivariate data analysis were performed using SPSS version 25.0 and focus group discussion (FGD) was used to collect qualitative information and the information was analysed using thematic analysis method based on Atlas.ti version 8.2 statistical software packages.

The study revealed that among 359 (85%) pregnant women who planned for ANC visit, 16 (4.5%) received ANC four or more times during their last pregnancies, the respondents (81.3%) claimed that they were taken care of by skilled delivery attendant during delivery, 18.5% of them said that they delivered at home and 71.1%

of them received medical care after delivery (missed opportunity). Women in the age group 15-24 years [AOR: 1.18, 95%CI: 1.18 (0.37, 3.74)], primary school [AOR: 4.09, 95%CI: 4.09(0.96, 15.50)], women intended their last pregnancy [AOR: 3.1, 95% CI: 0.32(0.11, 0.94)], and women living in urban residences [AOR: 1.2, 95%CI: 0.86(0.25, 2.95)] were significant predictors of unplanned home delivery.

For optimal and effective interventions of maternal health services utilization, provisions should be made for better women's education, family planning, community-based health insurance, health facilities access, job opportunity and women empowerment; provisions should also be made for creating income generating activities to women. Strengthening village women's army wing, refreshing and enabling health extension workers and traditional birth attendants. What is more, optimal measures should be taken to discourage traditional practices such as female genital mutilation, polygamy, violence against women and teenage marriage. Finally, free maternal and child health services should be advocated for so that the gap in maternal healthcare services is bridged.

Keywords: Antenatal care, Ethiopia, maternal mortality, socio-cultural determinants, traditional birth attendant.

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List of Abbreviations

AIDS	Acquired Immune Deficiency Syndrome
AJSC	Annual Joint Scientific Conference
ANC	Antenatal care
AOR	Adjusted Odds Ratio
AU	Africa union
CBHI	Community Based Health Insurance
CFR	Case Fatality Rate
CHWs	Community Health Workers
CI	Confidence Interval
CSA	Central Statics Agency
DC	Delivery Care
EDHS	Ethiopia Demographic and Health Servay
EHRC	Equality and Human Rights Commission
EOC	Essential Obstetric Services
EPHI	Ethiopia Public Health Institute
FDRE	Federal Democratic Republic of Ethiopia
FGC	Female Genital Cutting
FGD	Focus group discussion
FGM	Female Genital Mutilation
FMoH	Federal Ministry of Health
FP	Family Planning
GBV	Gender-Based Violence
GTP	Growth and transformation plan
HIV	Human Immune Virus
HSTP	Health Sector Transformation Plan
IPV	Intimate Partner Violence
LMICs	Low and Middle-Income Countries
LTR	Lifetime Risk of Maternal Death
MCH	Maternal Health care
MCM	Mother Care Matters
MDGs	Millennium Development Goals
MHS	Maternal health services
MMR	Maternal Mortality Ratio

NGO	Non-Governmental Organization
NHERC	North Hawai‘i Education and Research Center
OHCHR	Office of the High Commissioner for Human Rights
PATH	People Assisting The Homeless
PPM	Psycho Phenomenological Method
PNC	Postnatal Care
RBB	Regional Blood Bank
RMNCAH	Reproductive, maternal, neonatal and child health
SBAs	Skilled Birth Attendants
SDGs	Sustainable Development Goals
SEM	Social Ecological Model
SIDA	Swedish International Development
SRH	Sexual and Reproductive Health
STIs	Sexually transmitted infections
TBA	Traditional Birth Attendant
THCU	Texas Health Credit Union
UHC	Universal Health Coverage
UMICs	Upper Medium Income Countries
UN	United Nation
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNDP	United Nations Development Program
UNECA	United Nations Economic Commition for Africa
UNESCO	United NationsEducational, Scientific and Cultural Organization
UNFPA	United Nations Fund for Population Activity
UNHCR	United Nations High Commissioner for Refugees
UNICEF	United Nations Children’s Fund
UNIFEM	United Nations Development Fund for Women
WHO	World Health Organization

CHAPTER ONE

ORIENTATION TO THE STUDY

1.1 INTRODUCTION

Use of quality maternal health services (MHS) is central to the achievement of the Sustainable Development Goals Summit of 2015, representatives of most countries agreed to reach seventeen sustainable development goals (SDGs) by 2030, specifically among those goals 3 SDGs on the first agenda reducing maternal mortality ratio less than 70 per 10,000 live births (United Nations Statistics Division, 2015a). These goals have not been met in low-resource regions, especially in Sub-Saharan Africa, where the maternal mortality ratio declined by 45% between 1990 and 2015 (Alkema, Chou, Hogan, Zhang, Moller, Ann-beth, Ma Fat, Boerma, Ties, 2015:10). Studies done by Geneti (2015:71), maternal health has emerged as global priority because of great gap in the status of mother's well-being between positive and fulfilling the rich and the poor countries. In connection with this, for many women in poor countries is associated with suffering, ill health and even death and complications during pregnancy and childbirth. Complications of pregnancy and childbirth are the leading causes of maternal morbidities and mortalities for women of reproductive age (15 – 49 years) in these countries (Geneti, 2015:71). Overall, regional disparities in MMR persist in the developing region which is roughly 20 times larger than that of developed region (WHO, UNICEF, UNFPA Group, World Bank and UNPD, 2015:16). In connection with this, it is projected that approximately 303, 000 maternal deaths occurred globally in 2015 from pregnancy-related causes (WHO, UNICEF, UNFPA Group, World Bank and UNPD, 2015:16). While the overall global decline in maternal mortality ratio between 1990 and 2015 was 44 per cent, the annual decline was less than 2.3 per cent which in turn was quite less than the planned 5.5% (WHO, 2015b).

According to WHO (2015b), the maternal mortality situation was noted to be worse in the sub–Saharan Africa where the decline was 45 per cent (WHO, UNICEF, UNFPA Group, World Bank and UNPD, 2015:X).

In Ethiopia, a sub-Saharan country, maternal mortality is noticeably higher (Tessema, Assefa, Laurence, Melaku, Adama, Misganaw, Woldie, Hiruye, Amare, Lakew, Zeleke, Deribew, 2017:1). A recent study by Tessema et al.,(2017:5) identified the major causes of maternal mortality in Ethiopia were because of anaesthesia, embolism (air, amniotic fluid, and blood clot), the condition of per partum cardiomyopathy followed by complications of abortion.

According to the United Nations' agency WHO (2015:b) report, 11,000 maternal deaths occurred and the maternal mortality ratio was 353 deaths per 100,000 live births. In other words, for every 1,000 live births, about three or four women (3 or 4) died during pregnancy, childbirth, or within two months of childbirth in Ethiopia (Birmeta, Dibaba and Woldeyohannes, 2013). Consequently, the chance of an Ethiopian woman dying from reproductive health disorders and complications was put at 1 in 25 in 2005, 1 in 39 in 2010, and 1 in 64 in 2015, placing her at far greater risk than her counterparts in the developed world, where the risk was estimated to be 1 in 23,700 and 1 in 22,100 in countries such as Greece and Poland, respectively (WHO, 2016a).

1.2 BACKGROUND INFORMATION ABOUT THE RESEARCH PROBLEM

1.2.1 The source of the research problem

Maternal health refers to the health problems that women encounter during pregnancy, delivery, or in the postpartum period. While motherhood is often a positive and fulfilling experience for too many women, it is also associated with suffering, ill-health and even death (Takele Geneti 2015:71).

In low-resource regions, especially in Sub-Saharan Africa, where the maternal mortality ratio declined by 45% between 1990 and 2015 (Belemsaga, Bado, Goujon, Duysburgh, Degomme, Kouanda, Temmerman., 2016) based on the goals set by the Millennium Development Goals, a precursor of the 2015 SDGs. A study carried out by the World Bank (2015) indicated that maternal health remains a global priority because of great gap in the status of mothers' well-being between rich and poor countries. In rich nations, where women have access to basic health care, giving birth is a positive and fulfilling experience. On the other hand, giving birth, for many

women in poor countries is associated with suffering, ill health and even death. Besides, complications during pregnancy and childbirth have been found out as the leading causes of maternal morbidities and mortalities for women of reproductive age (15 – 49 years) (Geneti, 2015:72; Mungai, 2015:1).

A study by Kiango and Prisca (2015:1)also shows that 99 per cent of these deaths occur in developing countries, especially in sub – Saharan Africa, and there is a slow pace in reducing maternal mortality in developing countries compared to other regions of the world from 1990 to 2015 While the overall global decline in maternal mortality ratio between 1990 and 2015 was 44 per cent, the annual decline was less than 2.3 per cent which was less than to achieve the 5.5% target planned to be achieved.

1.2.2 Background to the research problem

Socio-Cultural factors linked with the use of MHS vary across and within cultures; As a matter of fact associations between use of MHS and socio-cultural factors have been observed (Babalola, 2014:2). These factors include individual level, Interpersonal or family level, social level, health system or policy level factors. According to Tesfaye, Loxton, Chojenta, Semahegn, Smith (2017:150), socio-cultural factors influencing the use of MHS at an individual level include, maternal age, maternal education, low decision making autonomy, maternal status, occupation, knowledge and perceived need of maternal health care, fear of C-section, shyness to be seen by unknown, financial burden, family support for home delivery and low decision-making autonomy. Concerning interpersonal or family level factors have found high level of family tradition, parity, husbands knowledge and perception, mothers-in-law influence, other family members and relatives influence, egalitarian sharing of conjugal decision-making power and whether pregnancy was wanted or not; At the community and social level factors studies examining the influence of CHWs, poverty, religious beliefs, ethnicity, traditional practices, cultural/spiritual beliefs, influence of neighbours, media saturation and prevalence of norms for small family size; and at the organizational and health system or policy level contextual factors and availability of services (i.e. functional health services), behaviour/quality of health care providers and accessibility (i.e. distance, place and transportation).

Moreover, several studies have indicated that the use of antenatal care as one of the strongest determinants in the use of skilled birth attendance or institutional delivery. At the household level, studies have found a high level of autonomy, egalitarian sharing of conjugal decision-making power, higher education of husband and high household socioeconomic status to be positively associated with the use of MHS. Other studies have focused on community compositional effects have shown that at the community level the proportion of educated people, poverty level, media saturation, and prevalence of norms for small family size are important correlates of use of MHS.

1.3 RESEARCH PROBLEM

Every day, nearly 830 women die from treatable or avoidable causes related to pregnancy and childbirth. Ninety nine per cent of maternal deaths occur in developing countries, that would mean 822 women die each day in developing countries due to pregnancy and childbirth (WHO, UNICEF, UNFPA Group, World Bank, UNPD., 2015:12). Even though maternal mortality is a worldwide phenomenon, the critical issues associated with it are most profound in developing countries. Hence, the estimated figure for maternal deaths worldwide, developing countries account for 99 per cent, with an estimated 201,000 maternal deaths occurring in sub-Saharan Africa (WHO, 2016:73).

In Ethiopia, the maternal mortality ratio had been in 2005 was 743/100,000, and it was 353/100,000 live births in 2015. Consequently, the chance of an Ethiopian woman dying from reproductive health disorders and complications was put at 1 in 25 in 2005, 1 in 39 in 2010, and 1 in 64 in 2015, placing the Ethiopian woman at far greater risk than her counterpart in the developed world, where the risk was estimated to be 1 in 23,700 and 1 in 22,100 in countries such as the Greece and Poland, respectively(WHO, UNICEF, UNFPA Group, World Bank, UNPD., 2015:12).

Studies have shown that despite the differences in maternal mortality ratio between developed and developing nations, the pattern of maternal mortality and morbidity has not changed over the decades. The reasons that are adduced for this are the persistent tradition of deliveries in domiciliary settings in unsafe and unhygienic conditions by untrained or poorly trained birth attendants (WHO, 2016). Although

maternal deaths in Ethiopia are mainly due to complications of pregnancy and delivery, it is the socio-cultural context under which these pregnancies and deliveries occur that pave the way for these complications and mortality. Deriving from the above, the critical questions that need to be asked include: why have the efforts to reduce maternal mortality and morbidity not yielded the desired results in Ethiopia? What socio-cultural factors underlie maternal mortality in Ethiopia? And how do these factors impact on the overall wellbeing of women? These questions form the basis on which this study is initiated.

1.4 AIM OF THE STUDY

1.4.1 Research purpose

A goal or purpose indicates the dream, whereas objectives indicate steps one has to take, one by one, realistically at grassroots level, within a certain time-span, in order to actualization of the dream (De Vos, A.S.; Strydom, H.; Fouché, C.B. and Delport, 2011:94). The main purpose of the study was to examine, describe, and develop the socio-cultural determinants and missed opportunities of maternal health care in Ethiopia.

1.4.2 Research objectives

This study had the following four specific objectives. The objectives were:

- to identify the social factors that induce the medical proximate determinants of maternal health;

- to explore the cultural beliefs and those stereotypes those are associated with maternal health; and

- to evaluate how social support influence maternal health.

1.4.3 Research questions

According to De Vos, Strydom, Fouché, and Delport (2005:327-328), a research question may be described as formulation of vague thoughts about a subject into a specific question. All research questions should be related to the goal and objectives of the study. Accordingly the research aimed at answering the following major question:

- What are the perceptions and experiences of the individual and community on the utilisation of maternal health care services in Ethiopia?
- What are the reasons for the non-utilisation of maternal health care services in Ethiopia?
- What can be done to reduce maternal morbidity and mortality in Ethiopia?
- What are the social–demographic factors that affect utilisation of maternal health care services in Ethiopia?
- What are the cultural beliefs and practices that affect utilisation of maternal health care services in Ethiopia?
- How do health systems affect utilisation of maternal health care services in Ethiopia?

1.5 SIGNIFICANCE OF THE STUDY

Maternal health care service is an important focus area in reproductive health. It contributes positively to the wellbeing of the population by eliminating preventable maternal morbidity and mortality. However, in order to accomplish the aim of SDGs 3 on the first agenda, reducing maternal mortality ratio less than 70 per 10,000 live births on 2030 (WHO, 2015b), it is important that the implementation of maternal health care services full package is taken seriously by governments of Ethiopia (Albloushi, 2016:7).

The present study would generate crucial findings regarding the maternal health services utilization, socio-demographic variables, factors affecting maternal health care practices, provisions and implementations in the context of East Hararghe Zone of the Oromia National Regional State. This study is also believed to add value to the related areas of study, such as institutional and organizational studies at a theoretical as well as a methodological level. The findings of the current study would provide policy makers, health practitioners, mothers and the community at large with useful insights regarding the impacts of socially and culturally rooted obstacles and challenges that affect community health in general and the health and security of women in particular. Finally, to disseminate knowledge and experience, key findings of the study can be published in international university of South Africa journals.

1.6 DEFINITION OF TERMS

1.6.1 Definition of key concepts

Antenatal care (ANC) is the care provided by skilled healthcare professionals to pregnant women and adolescent girls in order to ensure the best health conditions for both mother and baby during pregnancy (WHO,2016:19).

Direct Maternal Death: Direct maternal deaths are deaths that result from obstetric complications of the pregnant state, which includes pregnancy, labour, and postpartum. Direct deaths can be caused by interventions, omissions, incorrect treatment, or from a chain of events resulting from a combination of these factors (AbouZahr, 1998).

Indirect Maternal Death: Indirect maternal deaths are those deaths caused by conditions or diseases that may exist before pregnancy but are aggravated by the physiologic effects of pregnancy.

Lifetime risk of maternal death: The lifetime risk of maternal death (LTR) reflects the chances of a woman dying from maternal causes over her reproductive life span, usually given as 30–35 years. This measure is determined both by the chance of becoming pregnant (fertility) and the risk of death once pregnant (MMR) (EDHS, 1997). The LTR can be calculated as follows

$$\text{LTR} = \frac{\text{Number of maternal deaths in 1 year}}{\text{Number of women of reproductive age}} \text{x 35 years}$$

Late maternal death: A maternal death resulting from direct or indirect obstetric causes more than 42 days but less than one year after termination of pregnancy (AbouZahr, 1998).

Maternal death: Maternal death refers to the death of a woman while pregnant or within 42 days of the termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management but not from accidental or incidental causes (WHO, 2013d).

Maternal Health is the health of women during pregnancy, childbirth and the postpartum period (Mustafa et al., 2016:112)

Maternal health care services: Maternal health care services are antenatal care (ANC), delivery care and postnatal care (PNC) services (WHO, 2015).

Maternal Morbidity: The measures of disease most often used in epidemiology are prevalence and incidence. The point prevalence of a maternal complication is the

proportion of women of reproductive age who have the complication, and can be calculated as follows:

$$=\frac{\text{Number of existing cases of particular maternal complication at a specified point in time}}{\text{Population at risk}} \text{x } 100$$

The incidence of maternal complications, by contrast, is the number of new cases of the complication that occur in the population at risk within a specified period of time. The incidence rate can be calculated as follows:

$$= \frac{\text{Number of new cases of particular maternal complication at a specified point in time}}{\text{Population at risk}} \text{x}100$$

Maternal Mortality: The death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management (from direct or indirect obstetric death), but not from accidental or incidental causes (WHO et al., 2015:34)

Maternal mortality rate: The maternal mortality rate is the number of maternal deaths per 1,000 women of reproductive age (usually 15–49 years) (EDHS, 1997). The maternal mortality rate is calculated as follows

$$= \frac{\text{Number of maternal deaths during a given time period (generally one year)}}{\text{Number of women of reproductive age}} \text{x } 1{,}000$$

Maternal mortality ratio: The maternal mortality ratio (MMR or MM Ratio) is the number of maternal deaths per 100,000 live births (AbouZahr C 1998). The maternal mortality ratio is calculated as follows

$$\text{MMR} = \frac{\text{Number of maternal deaths in a given time period}}{\text{Number of live births occurring in the same time period}} \text{ x } 100{,}000$$

Medical proximate determinants: The proximate determinants of fertility are the biological and behavioural factors through which the indirect determinants, social, economic, psychological, and environmental variables affect fertility. The distinguishing feature of a proximate determinant is a direct connection with fertility (Bongaarts, 2014:516).

Missed opportunities: The maternal and infant health is based on the hypothesis that there are significant missed opportunities for improving maternal and child health which could be prevented and that an improved configuration and emphasis on postpartum services will reduce maternal morbidity and mortality (Esamai et al., 2017:105).

Postnatal care (**PNC**) is the care given for mothers and new born after an uncomplicated vaginal birth and starting from the moment mothers and new born leave the delivery room, up to six weeks (42 days) after birth (Gillet et al., 2014:16).

Pregnancy-related death: A maternal death occurring during pregnancy or within 42 days of termination of pregnancy, irrespective of cause (AbouZahr, 1998).

Proportionate mortality: Proportionate mortality is a useful measure of the percentage of deaths among women of reproductive age that are due to pregnancy (Berg C, Danel I, 1996). It can be calculated as follows:

$$= \frac{\text{Number of maternal deaths during a given time period}}{\text{Number of deaths among women of reproductive age during the same time period}} \text{x } 100$$

Quality of care: The degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge (Gupta and Rokade, 2016:84).

Skilled Birth Attendant is an accredited health professional, such as a specialist doctor, general practitioner doctor, health officer, the midwife and nurse professions, who has been educated and trained to proficiency in the skills needed to manage normal (uncomplicated) pregnancies, childbirth and the immediate postnatal period and in the identification, management and referral of complications in women and new-born (Utz et al., 2013:1064).

$$\text{SBA} = \frac{\text{Deliveries by skilled health personnel irrespective of outcome}}{\text{All live births during the same time period and in the same geographic area as numerator}} \text{x}100$$

The second part of the measure is defined as the proportion of births by site (e.g., home, health centre, or hospital), and can be calculated as follows(MCM, 1999):

$$= \frac{\text{Deliveries by site}}{\text{All live births during the same time period and in the same geographic area as numerator}} \text{x}100$$

Socio-cultural determinants: These are often unwritten rules or guidelines that direct a person's actions (Yew et al., 2014:56). It is approach to understanding why humans behave the way they do. The socio-cultural perspective seeks to understand human behaviour and personality development by examining the rules of the social groups and subgroups in which the individual is a member.

Socio-cultural practice: Markers that distinguish major differences between groups of people in a given society are education, income, occupation, ethnicity, race, religion, political affiliation and geographic region (Armenakis, 2007).

Traditional Birth Attendant (TBA) is a traditional midwife, community midwife or lay midwife who is able to provide pregnancy and childbirth care (Sarmento, 2014:12).

1.6.2 Operational definitions

For the purpose of clarity, the following key words have been given operational definitions as follows:

Measurement of Dependent variable

Maternal health care: is defined as the physical well-being of a mother in relation to her pregnancy. Maternal health includes being (women aged 15-49 years), prenatal care and postnatal care of the mother up to the age of five years.

Measurement of independent variable

Age of women: The age of the women at the time of the survey.

Antenatal care: It refers to the number of visits a woman makes to health care services during the pregnancy.

Delivery care: It is the place where a woman gives birth.

Marital status: It refers to the state whether a woman is married or not and whether she was still in marriage life at the time of the survey. In fact, the widowed, separated, divorced and never married were considered as single.

Parity: Is the birth order of the women.

Perceived quality of care: It indicates women's perception on the quality of health care in the health facility.

Postnatal care: The postnatal care within two months after delivery.

Travel time*:* It is travel time that a woman takes to travel from her house to a health facility.

Women's Education: Maternal education was categorized into four classes, namely; no education, primary (completed class 8), secondary (completed class 10/12) and tertiary education (above secondary school)

Women's Employment Status and Women Occupation: women who were currently employed. I.e. performed some work, at least one hour in the week prior to the survey for wage/salary, for profit or family gain in cash or in kind. Those who

were not currently employed but had worked in the past 12 months are not included in the sample.

Women's Autonomy: The women decision making power or the respondents who decided to use of maternal health care services.

1.7 THEORETICAL FOUNDATION OF THE STUDY

The study was based on the theoretical foundations of socio-ecological model which is in line with the guidelines of the Ottawa Charter. More specifically, the Social Ecological Model (SEM) is a theory-based framework for understanding the complex and interactive effects of personal and environmental factors that determine behaviours, and for identifying behavioural and organizational leverage points and intermediaries for health promotion within organizations. This model has been used to delineate the social climate, key players, strategic actions to be taken in policy-making, public policy a political reality and knowing how this can be carried out. This framework has been used because public health sees human health in an ecological relationship with all in our natural and human made habitats (Mclaren & Hawe, 2005:7). Moreover, the framework has been used here as it is relevant to both high and low income countries (Aubert, 2005; Colin *et al.*, 2012). The conceptual components of socio-ecological framework for maternal health is shown in Figure 3.1, and the components of SEM were discussed in chapter three of the study using theoretical considerations and supporting evidence from the conceptual section.

1.8 RESEARCH DESIGN AND METHOD

In this study a sequential triangulation of mixed methods design was used. This is a type of design in which different, but complementary data were collected on the same topic.

1.8.1 Research design

A community-based triangulation mixed method study design that employee quantitative and qualitative data collection methods were used based on descriptive correlation. In triangulation study design either the entire population or a subset of it is selected individuals, data are collected to help answer research questions of interest is called triangulation mixed methods because the information gathered represents what is going on at only one point in time.

1.8.2 Research methods

A mixed-methods approach was used in this study, involving a partially mixed sequential equal status design in terms of the classification; partially mixed design implies the mixing of qualitative and quantitative data for interpretation level (i.e. the quantitative data were linked to and explained by qualitative results); sequential means that the qualitative data were collected after the quantitative data. The nation of equal status denotes that both qualitative and quantitative data were given the same importance at the time of interpretation (George & Branchini, 2017:266). The quantitative part of the mixed-method study reveals the trends and differences in rates for maternal health outcomes (Gupta et al., 2015:5); whereas the qualitative study provides explanations for these findings, which are used to formulate evidence-based recommendations for implementing the program in a more effective way so as to achieve the intended research objectives.

1.9 SCOPE OF THE STUDY

Despite the contribution of the study to the literature on maternal health care, the study has some limitations. First, it is a triangulation study in which temporal relations could not be assessed. There could be recalled bias since the women were asked for events within the last five years prior to the survey, despite the fact that the most recent births were considered. Since the information was collected retrospectively, women may overlook or may not accurately recall the number or timing of prenatal care location and attendant of birth or PNC during the interview (Jamison *et al.*, 2013). However, many studies have examined maternal health care use retrospectively even up to the last 5 year period (Tarekegn, Lieberman and Giedraitis, 2014). The present study minimized these errors while considering births up to 5 years period. Not all predictors of maternal health care services use were included in the study due to limitations of the data and scope of the study. For instance, healthcare use could be determined by certain community norms, including cultural practices related to pregnancy care that are difficult to measure from the available dataset.

The study also acknowledges the limitation in considering measures of quality of healthcare services such as waiting time, staff attitudes and behaviour which may influence women’s decisions on whether or not to make use of given facilities.

However, the district-level variables included in the study provide some scope to assess the structural features of health facilities available in the study area. This study defined community-based on east Hararghe rural areas and these boundaries may not conform to respondents' perceptions about the extent of their own community. Despite these limitations, the study provides important information on the utilization of maternal health care services in three high focus Woredas in East Hararghe. The analysis has highlights the importance of structural determinants of maternity care services, accounting for individual and household factors along with contextual factors.

1.10 STRUCTURE OF THE STUDY

The thesis is organized into seven chapters. Chapter one covers introduction and background to the study, a statement of the problem, research purpose, research questions, aim and objectives of the study, definitions of terms, theoretical foundations, justification as well as the scope of the study and research design and method. Chapter two presents a comprehensive literature review on the subject under investigation. Chapter three emphasizes the theoretical and conceptual framework that the study adopted; and the fourth chapter concentrates on the research methodology which includes the study population, sample design and procedure, instrument of data collection, method of data analysis, internal and external validity of the study. Chapter five focuses on data presentation, general description of research data, data analysis, and interpretation of results. Chapter six explains the discussion of the results obtained from the study and an overview of research findings of maternal health care, and finally the last chapter presents the summary, conclusion, recommendations, contributions, combination and limitations of the study.

1.11 CONCLUSION

This chapter presents an introduction and background to the study, a statement of the problem, research purpose, research questions, aim and objectives of the study, definitions of terms, theoretical foundations, and justification as well as the scope of the study research design and method of inquiry.

The next chapter presents on the literature review of maternal health care services and analysis challenges facing health policy development, the role of equity in maternal health analysis, the nature and development of socio-cultural determinants of maternal health care services, model, and definition of maternal health and the impact of maternal mortality and morbidity.

CHAPTER TWO

LITERATURE REVIEW

2.1 INTRODUCTION

The literature review is a broad term that includes two major types of reviews: non-systemic and systemic reviews(Bowman, 2005:171). Non-systemic review includes that provide background information for research articles, demarcate the scope of an investigation, present evidence to support a claim or justify the importance of a study and these type of reviews do not minimize bias, thus risk offering misleading conclusions and misdirecting practice (Bowman 2005:171). In contrast, systematic reviews involve an attempt to discover inconsistencies and account for variability in studies that appear similar by applying the rules of the scientific process to extract and pool findings (Bowman 2005:171). In this study, systemic reviews have been employed to gather sufficient information pertinent to maternal health care policy development in Ethiopia.

Systematic reviews may be quantitative or qualitative and the stages of each type of review are identical (Bowman 2005:171). Quantitative research methods have traditionally played a significant role in health services research, but there is growing a recognition that qualitative research can also make important contributions to understanding decision making in health services (Al-Busaidi, 2008:12; Anderson, 2010:141). It is therefore upon this background that the current study used both quantitative and qualitative reviews as a means of gathering information.

The primary aim of reviewing literature in any field of knowledge is to contextualize the study in accordance with identified units of analysis (Grant & Booth, 2009:92). According to Terjesen, Hessels and Li, (2013), the general features of literature review or the accumulated body of scholarship in any discipline of the study should include:

- multi-dimensional definitions of the unit(s) of analysis;
- perspectives on what other studies have produced previously in respect of existing data and empirical evidence thereof;

- expansions on various theories, models and hypotheses in field under investigations and;
- enlighten on the kind of instrumentation used or developed as well as the extent to which they have been successful.

2.2 CONTEXTUALIZATION OF THE LITERATURE REVIEW

In this section, efforts to integrate and contextualize the leading theoretical, conceptual and empirical frameworks observed have been made (Kamla-Raj, 2014:186). The research used a combination of evidence to provide a multidimensional perspective to understanding the health policy process (Atkinson *et al.*, 2015). The collection of data involved both primary and secondary data sources (Lee, Lee and Lee, 2013). The primary source of information included self-administered questionnaires, structured, and in-depth interviews as well as health policy documents involving maternal, Child and Women's Health (Daire and Khalil, 2015). Statistical records on maternal health activities formed the secondary source of data collection. The source of this information was from both the National and Regional of Health of Ethiopia (Dicker, 2006; WHO, 2017).

The literature review defines the parameters of the study by exploring the current concepts and ideologies expressed in international health policy development (Healey and Meadows, 2007). This theoretical information is pertinent because it could provide a rationale for the current selection of health policy priorities, strategies, interventions and programmes in Ethiopia (Manyazewal, Oosthuizen and Matlakala, 2016). This section also focuses on an overview of the nature and development of maternal health promotion in general (UNDP, 2009). The ideologies of maternal health promotion, policy perspectives and subsequent planning strategies are explicitly outlined in the review (George and Branchini, 2017). This overview in health policy and maternal health forms the foundation to critically appraise health policy and practice in Ethiopia (Karim *et al.*, 2013).

2.3 SOCIO-CULTURAL FACTORS AFFECT MATERNAL HEALTH CARE

The social determinants of health are linked to the economic and social conditions and their distribution among the population that influence individual and group differences in health status (Braveman and Gottlieb, 2014). According to some viewpoints, the distributions of social determinants are shaped by public policies that reflect the influence of prevailing political ideologies of those governing a jurisdiction (Raphael and Brassolotto, 2015). The World Health Organization says, "This unequal distribution of health-damaging experiences is not in any sense a 'natural' phenomenon, but is the result of a toxic combination of poor social policies, unfair economic arrangements where the already well-off and healthy become even richer and the poor who are already more likely to be ill become even poorer, and bad politics." (López and Gadsden, 2016)

The social determinant of health is clearly related to health outcomes, closely tied to public policy and clearly understandable by the public (Braveman and Gottlieb, 2014). According to the report entitled "Closing the Gap in a Generation" by World Commission on Social determinants of health (2008), two broad areas of social determinants of health that needed to be addressed are identified. The first area was daily living condition, which included healthy physical environment, fair employment and decent work, social protection across the lifespan, and access to health care. The second major area covered issues such as distribution of power, money, and resources, including equity in health programs, public financing of action on the social determinants, economic inequality, resource depletion, healthy working condition, gender equality, political empowerment, and a balance of power and prosperity of nations.

Binkley(2014)propose the model as an ecologically based program-planning tool for health promotion. In this model the section of the model is the assessment phase where the planner assesses models recognizes multiple levels of influence on health behaviors, including:

- **Intrapersonal/individual factors,** which influence behavior such as knowledge, attitudes, beliefs, and personality.

- **Interpersonal factors,** such as interactions with other people, which can provide social support or create barriers to interpersonal growth that promotes healthy behavior.
- **Institutional and organizational factors,** including the rules, regulations, policies, and informal structures that constrain or promote healthy behaviors.
- **Community factors,** such as formal or informal social norms that exist among individuals, groups, or organizations, can limit or enhance healthy behaviors.
- **Public policy factors,** including local, state, and federal policies and laws that regulate or support health actions and practices for disease prevention including early detection, control, and management.

2.3.1 Health policy level factors

The definition of policy is often broad, including laws, regulations, and judicial decrees as well as agency guidelines and budget priorities. In a systematic search of "model" public health laws (i.e., a public health law or private policy that is publicly recommended by at least 1 organization for adoption by government bodies or by specified private entities),

According to Brownson, Chriqui, and Stamatakis (2009), public health policy has a profound impact on health status. EBP is a discourse orset of methods which informs the policy process, rather than aiming to directly affect the eventual goals of the policy. It advocates a more rational, rigorous and systematic approach (Vanlandingham and Greene, 2014). The reason to use evidence-based policymaking uses the best available research and information on program results to guide decisions at all stages of the policy process and in each branch of government (Sutcliffe and Court, 2005). Policy-relevant evidence includes both quantitative (e.g., epidemiological) and qualitative information (e.g., narrative accounts). Policy interventions are important and can be effective at community and social level strategies for improving the public's health. This importance of health policy interventions can influence systems development, organizational change, social norms, and individual behaviour, promote improvements in the health and safety of a population.

Women face a plethora of problems when pregnant in Africa, three challenges or barriers to maternal health seem particularly problematic. Successful interventions should be aimed at addressing these challenges: 1) access and availability; 2) cost; and 3) information and attitudes (Africa Progress Panel and Brief, 2010).Despite grim maternal health indicators and these significant barriers to success, if African governments focus on tackling these barriers by improving health systems, utilizing efficient financing mechanisms and forming political partnerships, maternal health were improve in Africa. The key to successful programmes is political were, accompanied by a steady source of funding, to support gender equality and maternal health. Steady sources of funding ensure the sustainability of programmes and1) political will ensure the sustainability of steady funding.

Barriers to access exist throughout Africa's healthcare systems; cost, social dynamics and other obstacles prevent women from fully accessing care, and insufficient information prevents governments from creating the optimal systems. These impediments combine and reinforce each other to prevent successful utilization of health services by many women. To achieve real progress in maternal health, effective financing methods must consider these barriers.

2.3.1.1 Health policy development

According to Alberta (2016), a health policy development framework consists of three foundational elements: governance, principles and consistent and predictable process steps. It is believed that when the three foundational elements work in harmony with one another, the desired results would be realized.

Policy development and implementation in scale-up is the process of incorporating a health intervention into the laws, policies, and structures that govern health systems. It entails assessing the policy environment, identifying policies that pose barriers scale-up, and taking action to ensure is enabling policies in place at all levels of the health system (USAID, 2012; Cresswell, Bates and Sheikh, 2013).

As a matter of fact, health is a human right under international law that is interdependent with and indivisible from other human rights. Key human rights interventions include those in the areas of policy and legislation, equality and non-

discrimination, service delivery, participation, the underlying determinants of health, socio-cultural, political and economic affairs, and accountability (WHO, 2016b). The UN's Human Rights Council has also issued practical technical guidance to help countries apply human rights standards and principles in health programs for women, children and adolescents. Besides fulfilling legal obligations, using a human rights-based approach has a positive impact on women's, children's and adolescents' health (Mann, Bradley & Sahakian, 2016:265). Therefore, assessing the impact of human rights-based approaches, and understanding the impact of health and sustainable development is very crucial to improve implementation and accountability.

Ethiopia has been pursuing pro-poor policies by implementing development plans and programs within global development frameworks such as the MDGs, the Brussels Program of Action and its successor the Istanbul Program of Action for Least Developed Countries. These policies have been mainstreamed with remarkable achievements in economic growth, social development and environmental management (National Plan Commission, 2017). These achievements in turn helped the country to gain application development experiences over the last decade and half. From these experiences and having recognized in future opportunities, Ethiopia has accepted with strong government commitments and endorsed the 2030 Agenda for Sustainable Development by the Federal House of Peoples' Representatives with full sense of national ownership to implement the 2030 Agenda and its sustainable development goals as an integral part of its national development framework, i.e., the Second Five Year Growth and Transformation Plan (GTP II) (FDRE, 2017b).

The Ministry of Health has developed a 20-year plan that visions Ethiopia moving towards the path of universal health coverage (2015 – 2035) (WHO, 2010). The current Health Sector Transformation Plan (HSTP) which is extrapolated from the GPT II and covers a five-year period from July 2016 to June 2020 is well aligned with the third SDG and health-related SDGs. The HSTP targets to deal with influence determinants of performance of health (FMoH, 2015). It is therefore important that health policy development considers this very intricate relationship between the determinants of health and maternal health and the factors that link maternal

mortality, morbidity and disability. While health policy development is essentially considered a political process, this interrelationship between maternal health and general health have important implications for maternal health planning in Ethiopia (FMoH, 2015).

2.3.1.2 Challenges facing health policy development

Although health policy means decision, plans, and actions that are carried out to achieve specific health care goals within a society, women, children and adolescents still face numerous interrelated health challenges, on ground of poverty, inequality and marginalisation (King and Winthrop, 2015). Despite the progress made in maternal care globally, societies are still failing women, especially women in most acutely poor countries and women among the poorest in all settings.

Gender-based discrimination leads to economic, social and health disadvantages for women, affecting their own and their families well-being in complex ways throughout the life course and into the next generation (WHO, 2016b). It is argued that gender equality is vital to the health and development (Weber, 2013). In connection with women's being disadvantaged the of WHO (2016)report shows that an estimated 289,000 died in pregnancy and child birth in 2013, with more than one life lost every 2 minutes, and 225 million women had an unmet need for family planning. According to the same report52% of maternal deaths have been attributed to three leading preventable causes are haemorrhage, sepsis, and hypertensive disorders, Moreover28% of maternal mortality results from non-obstetric causes such as malaria, HIV, diabetes, cardiovascular disease and obesity; 8% of maternal mortality is attributable to unsafe abortion; 270,000 women die of cervical cancer each year and 1 in 3 women aged 15–49 years' experience physical and/or sexual violence either within or outside the home.

In spite of overall achievements in the health-related MDGs in Ethiopia, there are challenges that would also be health concerns to Ethiopia during the implementation of the SDGs. These health concerns are: health financing and inequity in health outcomes. Even though, the government expenditure on health (as a percentage of total government expenditure) increased from 3% in 1995 to 4.9% in 2014, it is still below the 2001 Abuja Declaration which requires African states to allocate at

least15% their annual budget to improve the health sector(WHO, 2014). In Ethiopia, per capita health expenditure also increased from US$4.5 in 1995 to US$26.7 in 2014 (Tessema *et al.*, 2017). However, this is well below the recommendedUS$35 by WHO in 2001 (this increased to US$60 in 2014) to deliver essential healthcare in low-income countries (WHO, 2014). This shows that health is under financed in Ethiopia and the government in particular should allocate more resources to health.

These equity gaps are due to differentials in health systems capacity and differences in socio-economic development among regions and between urban and rural areas in the country. These gaps indeed be challenges that the SDGs need to address using comprehensive strategies, including the universal health coverage (UHC) and the social and cultural determinants of health approach (Yamin and Maleche, 2017).

2.3.1.3 Evidence for evidence-based policy in maternal health

Policy change involves both science and art; therefore, evidence for policymaking can take several forms. The concept of evidence often originates from legal settings in Western societies. In law, evidence comes in the form of stories, witness accounts, police testimony, expert opinions, and forensic science (Brownson, Chriqui and Stamatakis, 2009:1576). In connection with this policy-relevant evidence, both quantitative data and qualitative information are important (Brownson, Chriqui and Stamatakis, 2009:1576). Although the use of research-derived evidence may be a key feature of most policy models, it is not a certainty that scientific evidence were carry as much weight in “real world” policymaking settings as other types of evidence.

Policymakers operate on a different hierarchy of evidence than scientists, leaving the two groups to live in so-called parallel universes. According to interviews with policymakers, many respondents reported that they were not trained to distinguish between good and bad data, and were, therefore, prone to the influence of misused “facts” often presented by interest groups (Brownson, Chriqui and Stamatakis, 2009:1576).

2.3.1.4 Maternal health advocacy

For maternal health provision to be effective, there need to be a policy or an enabling environment. The policy/enabling environment level consists of policy, legislation,

commitment from political and other leaderships that influence health and development. Advocacy is an organized effort to inform and motivate leadership to create an enabling environment for achieving program objectives and development goals. The purpose of advocacy is (1) to promote the development of new policies, (2) to change existing governmental or organizational laws, policies or rules, and/or ensure the adequate implementation of existing policies to redefine public perceptions, social norms and procedures, (3) to support protocols that benefit specific populations affected by existing legislation, norms and procedures, and/or (4) to influence funding decisions for specific initiatives.

According to study done by Okumu & Mberia (2017: 40) there are three common types of advocacy:

1. **Policy advocacy**, Policy advocacy is to influence policymakers and decision makers to change legislative, social, or infrastructural elements of the environment, including the development of equity-focused programs and corresponding budget allocations;
2. **Community advocacy**, It aims to empower communities to demand policy, social, or infrastructural change in their environment, and
3. **Media advocacy.** Its purpose is to enlist the mass media to push policymakers and decision makers toward changing the environment.

2.3.2 Organizational and health system level factors

The movement of new knowledge and tools into healthcare settings continues to be a slow, complex and poorly understood process in least developed areas (Robin, Lois, Joan, Geoffre, 2015: 103). In this section, system-level factors important to the implementation of socio-cultural determinants of maternal healthcare services are presented.

2.3.2.1 Availability/accessibility of services

Physical accessibility is one of the most important determinants in maternal health service utilization. Different studies have identified that physical proximity of healthcare services plays an important role in maternal health service utilization. A study done by Kalasa and Jacobson (2012: 10) indicates that reducing maternal deaths, especially in rural areas of Ethiopia, requires not just a medical care but a whole societal engagement as well.

In relation to the importance of engaging service users in maternal health utilization, Kifle and his associates (2017) in their qualitative study found out that some women, despite the presence of a healthcare provider, did not want to a health facility for delivery because they did not feel comfortable sleeping on the delivery bed at the health centre (Kifle *et al*., 2017: 6). On the other hand, there were women who claimed that they benefited from attending maternal healthcare services at health facilities and they said that they got healthy children because they attended ANC and delivered at facilities, receiving good care from the health service providers (Kifle et al., 2017: 7).

2.3.2.2 Equipment, medication and supply

Amon, Almamy, Mustafa, Kassimu, Henry, Ahmed and James (2015: 25) cite, shortage of some medical stuff, electricity interruptions, long waiting time, inaccessibility of transportation and distance of health facilities were frequently demonstrated in the qualitative data as institutional influencing factors of maternal healthcare service seeking behaviours. In addition, health centres and hospitals tend to be better resourced in the cities of less developed countries; there are more and better-trained personnel, and many times more modern equipment and conditions influence people´s decisions to seek care from the facilities (Sedekia *et al.*, 2017:10).

In connection with medication supply, a research done by Kifle *et al.*(2017: 7) shows that due to the unavailability of reagents for several months medical staff could not give full maternal healthcare services that led women not to go to healthcare canters. Mostly, shortage of maternal health drugs is a modifiable chronic barriers across Ethiopia's governmental health facilities (David *et al.*, 2014:7).

Insufficient human resources, inadequate infrastructures, and shortages in equipment and medications have been identified as the main causes of structural inadequacies contributing to poor health service delivery in governmental health facilities (Baatiema *et al.*, 2016). Indeed, a recent study from Maputo Province found that the high number of maternal deaths and severe maternal morbidities were influenced by lack of money for medical costs from health facilities (David et al., 2014: 8).

2.3.2.3 Health Insurance

A study indicated that 52.5% of women in rural areas and 49.2% in urban settings attended ANC once prior to delivery and the first ANC visit was after 28 weeks of pregnancy and they were also likely to be poor with a monthly income of less than GH¢500.00, or have had insurance for only 3 months prior to delivery (Asundep *et al.*, 2013:280). Elsewhere, initiatives that have significantly increased facility-based deliveries can be seen in Kenya, which implements a voucher programme that enables access to four antenatal care visits, a facility based delivery including caesarean section, and treatment of delivery complications (Bellows *et al.*, 2013:135).

Minimizing cost and distance through a wider application of the CBHI and increasing awareness through antenatal health education could likely increase the use of antenatal services and further lower the prevalence of adverse pregnancy outcomes (Asundep et al., 2013: 282). On the other hand, a research was done on Kifle et al. (2017: 10) indicated, in the study setting where they carried out their research, that almost all women used antenatal services, for the cost of maternal healthcare services were provided free of charges in all government health facilities in Ethiopia.

2.3.2.4 Behaviours / quality of healthcare service

Good quality maternal healthcare, comprising of antenatal, delivery and postnatal services, essentially promotes mother´s and child´s wellbeing and helps to prevent severe complications and illnesses, even death (Bahl and Daelmans, 2015:1044). Poor quality of maternal healthcare services, on the contrary, has been recognized as the major factor contributing to maternal and new born deaths in most low and middle income countries (WHO, 2015a:38).

Quality is a strategic differentiator tool for sustaining competitive advantage (Mathenge Kingo'ri, 2016:51). Improving quality through improving structures and processes leads to a reduction of waste, rework, delays, lower costs, higher market shares, and a positive company images (Mathenge Kingo'ri, 2016: 52). As a result, productivity and profitability improve (Kwabenaasare and Ibrahim, 2017:23). Therefore, it is very important to define, measure and improve quality of healthcare services (Mosadeghrad, 2014). According to Mosadeghrad (2014), good healthcare quality means "providing patients with appropriate services in a technically

competent manner, with good communication, shared decision making and cultural sensitivity". Mosadeghrad (2014) defined quality healthcare as "consistently delighting the patient by providing efficacious, effective and efficient healthcare services according to the latest clinical guidelines and standards, which meet the patients' needs and satisfy the providers".

Thus, quality healthcare includes characteristics such as availability, accessibility, affordability, acceptability, appropriateness, competency, timeliness, privacy, confidentiality, attentiveness, caring, responsiveness, accountability, accuracy, reliability, comprehensiveness, continuity, equity, amenities, and facilities.

2.3.2.5 Distance to health facilities

The effect of distance to health facilities is exacerbated by poor roads and limited availability of transportation vehicles. Women who did not attend the required number of antenatal visits due to distance or cultural beliefs were reported to be twice as likely to experience an adverse outcome compared with women whose attendance was not influenced by these factors (Asundep et al., 2013: 281). Actually, a study from Tanzania found that large distances to hospital contribute to high levels of direct obstetric mortality (B. McPake, 2016:625).

Again, a recent study from Maputo Province, Mozambique, found that the high number of maternal deaths and severe maternal morbidities were influenced by distance from health facilities (David *et al.*, 2014:3). In addition to distance, women whose ANC attendance was influenced by cost or distance were two times more likely to experience an adverse outcome compared with women whose attendance was not influenced by these factors. Lastly, cost, parity and distance influence ANC attendance and are also associated with adverse pregnancy outcomes (Asundep et al., 2013: 281).

2.3.2.6 Place of residence

Recent studies indicate that countries that have achieved high coverage of maternal healthcare by SBA from a relatively low baseline over the last decades have progressed through a common pathway. Further, the coverage has increased first among the urban rich, followed by the rural rich; the urban poor and the rural poor were the last to be reached (Joseph *et al.*, 2016:6). In connection with this, place of

delivery and type of attendant are important determinants of maternal healthcare services.

Residence is a determinant for maternal health service utilization. The studies done in Ethiopia showed that maternal health service utilization is higher among urban residents than rural residents (Tarekegn, Lieberman and Giedraitis, 2014:6). Other studies also show that urban residence had significant associations with the utilization of ANC, delivery and PNC services (Roro *et al.*, 2014:3). Most maternal deaths are avoidable as long as the health-care solutions to prevent or manage complications are well established. To save lives, women need access to antenatal care during pregnancy, skilled care at delivery, and support in the weeks after childbirth (Mustafa *et al.*, 2016:112).

2.3.2.6.1 Antenatal services

Place of residence (urban/rural) is a keys dimension of inequalities in SBA coverage (Roro *et al.*, 2014:3). Accordingly, urban residing women were predicted to have higher ANC and delivery care utilization than rural residing women among spouses of the studied men in Nigeria (Adewuyi *et al.*, 2018:4). In addition, residence place of women's was significantly associated with the use of skilled ANC services (Mustafa *et al.*, 2016:112).

2.3.2.6.2 Delivery services

Living in urban areas was associated with more frequent service utilization than living in the countryside. In connection with this over half of the spouses of urban men in comparison with only 5 % of the rural counterparts delivered in an institute (Baernholdt *et al.*, 2013:345). In addition, urban residence women were more likely to use skilled delivery attendants than those who were from rural residence (Mustafa et al., 2016: 113).

2.3.2.6.3 Postnatal services

Women who from urban residence were more likely to use PNC attendants than those who were from rural residence (Mustafa et al., 2016:113). Additionally, place of birth was also shown significantly associated with seeking postnatal health service done in northwest Ethiopia delivering at health facility led women to seek for PNC services (Hagos *et al.*, 2014). In connection with this the study shows that Teenage childbearing is more common in rural than in urban areas (Lamaro and Tadele,

2017:5). Lastly, place of birth was also shown significantly associated with seeking postnatal health service studies done in northwest Ethiopia (Kifle *et al.*, 2017).

2.3.2.7 Transportation access

A research done by Kifle et al. (2017) a midwife indicated that as the rural women did not prefer to visit health facilities for maternal care service as they expected to visit due to transportation problem, scarcity of ambulance, poor road construction aside from familiarizations of food stuffs. In connection with this a woman who participated in the FGD shared this view and said, “We wanted to deliver at health centre/hospital but when we called the ambulance it came very late so that we were enforced to give birth at home.”

A study done in Ethiopia indicates women prefer to deliver at home due to lack of transportation was one of the major factors use of maternal healthcare services (Shiferaw *et al.*, 2013:5). Owning a vehicle was not significantly associated with men’s participation in ANC; it was the only insignificant variable when examining the associations to maternal healthcare utilization and also having a vehicle in the household was related to more active healthcare seeking behaviour. A recent study from Maputo Province, moreover, found that the high number of maternal deaths and severe maternal morbidities were influenced by lack of money for transportation to health facilities (David *et al.*, 2014). In connection with this, it was found that having a vehicle in the household was associated with institutional delivery two times more often than not having one (Feyissa and Genemo, 2014:5).

2.3.3 Community and social level factors

The determinants of maternal health are the conditions in which people are born, grow, live and work as well as age; these are shaped by the distribution of money, power and resources at global, national, and local levels (WHO, 2008b: 2). The Global Strategy of the new Sustainable Development Goals agenda thus urges for a more integrated and transformative approach to maternal health, with much greater cross-sectarian links across social, economic and environmental pillars (Stevenson, 2017). The strategic plan is aligned with the African Union Multi-Sector Framework on Reproductive, Maternal, Neonatal and Child Health (RMNCH) that was developed to ensure integration of continental, sub-regional and country-level policy and budget action across all health and social determinant sectors (AU, 2017).

2.3.3.1 Parity

Some studies reported that multi parity was perceived as a significant risk factor for a home delivery (Ebot, 2015).However, and interestingly so, parity is inversely related with the level of family planning approval among women (Bakibinga, Mutombo and Mukiira, 2015). Women with >5 deliveries were nearly 4 times more likely to experience an adverse outcome compared with women with one delivery (Asundep *et al.*, 2013). Similarly, women who gave their 4th or 5th births were 78% less likely to seek give birth at health facility as compared to those who gave birth for the first time (Dansereau *et al.*, 2016).

Number of children was negatively associated with men´s participation, whereas institutional delivery was most common among partners of 25-34 year-old men (Machira and Palamuleni, 2018). This study shows that maternal age was not associated with the use of all the three maternal health services. However, parity was found to have a significant effect on the use of the three maternal health services (Kozuki *et al.*, 2013). Similarly, a related study indicates that women with only one birth were more likely to use PNC services than those who had 5 or more births (Shiferaw *et al.*, 2013).

2.3.3.2 Influence of health workers

According to a study done in Sierra Leone by Whitaker K.(2012), traditional birth attendants (TBAs) have been sometimes contentious and a controversial issue in sub- Saharan Africa, with some countries instituting or debating a national ban on TBA activities. Some countries like Kenya implemented a community base midwifery program, but widespread scale-up has been limited by different factors, specifically poor funding (Bucher *et al.*, 2016). However, the overall births attended by skilled health professionals in Kenya has been increasing in recent years,, from 44 to 62 %, with a concomitant increase in the proportion of deliveries that occur in a health facility (43 to 62 %).

In general, a large percentage of women deliver outside health facilities because in many low- and middle-income countries, births are attended by traditional birth attendants (Ibrahim, S. M., M. Bukar, Y. Mohammed, B. M. Audu, 2013:39). Some scholars present the negative effect of such practices. For instance, Diamond-Smith et al.(2017) indicate that high rate of home deliveries conducted by unskilled birth

attendants in third world countries are believed to be a crucial underlying factor contributing to high rates of global maternal mortality.

Ethiopia reveals that there is a significant gap in the availability of health workers among regions. For instance, in the federally governed cities of Ethiopia, Addis Ababa and Dire Dawa administrations have had urban population proportions of 100% and 67.5% health workers, respectively. In these cities there are higher numbers of urban medical doctors compared to other regions that have a more rural population. Addis Ababa and Dire Dawa city administrations have one medical doctor for 3,056 and 6,796, respectively. Other regions like Amhara and Oromia, with an urban population proportion of 12.6% and 12.2%, respectively, have a very few doctors compared with the other regions (World Health Organization, 2017). This shows that rural areas in Ethiopia are less advantaged in terms of accessing skilled maternal health services than urban areas. However, access to trained midwives, labour and delivery-care coverage rate increased from 60% to 72.7% per cent from 2014 to 2016 (FDRE, 2017).

2.3.3.3 Poverty

UNFPA (2012b) reports that a woman's chance of dying or becoming disabled during pregnancy and childbirth is closely connected to her social and economic status, the norms and values of her culture, and the geographic remoteness of her home. Generally speaking, the poorer and more marginalized a woman is, the greater her risk of death. In fact, maternal mortality rates reflect disparities between wealthy and poor countries more than any other measure of health (USAID, 2014:17).Similarly a study done in Ghana indicates that the odds of having a skilled attendant at delivery for women in the highest wealth quintile are 94% more than for women in the poorest wealth quintile (Arthur, 2012:3).

According to a study conducted by Tarekegn, Lieberman & Giedraitis (2014: 5) a household's wealth status is significantly associated with antenatal, delivery and postnatal healthcare services utilization in Ethiopia. In the same vein, it is reported that women in a household with a higher wealth quintile are more likely to utilize all maternal health services than those who are from the poor wealth households (Arthur, 2012:3). A similar study done in Ethiopia shows that women from the richest

households were more likely to use skilled delivery attendants and PNC services than women from the poorest households (Roro *et al.*, 2014). In connection with this, teenagers' childbearing also decreases steadily with wealth; 22 per cent of teenagers in the lowest wealth quintile have begun childbearing compared with 5 per cent of those in the highest quintile (Lamaro and Tadele, 2017).

2.3.3.4 Religious affiliation

A relatively recently study done in Ethiopia identified that one of the most important reasons for not preferring institutional delivery was the belief that it was not necessary and customary for women to deliver in healthcare facilities (Roro et al., 2014: 5). Similar studies conducted in resource limited countries indicate that maternal health services utilization is determined by culture, ethnicity and religion of women. In fact, this was described by women's autonomy, gender relationships and social networks are affected by ethnicity, culture and religion (Nikose *et al.*, 2015). Another study conducted in Bangladesh reveals that Muslim women were found to be less likely to seek maternal healthcare service as compared with Christian women (Guimei, 2017:6).

Furthermore, studies conducted in Cameroon and Senegal looked into the influence of religion on women's fertility decision. These studies demonstrated that religion influences women's decision making including decisions on FP (Bakibinga, Mutombo and Mukiira, 2015). Similarly, a study conducted in Ethiopia in relation to the influence of religion on women's fertility decision shows Orthodox Christian women have the highest proportion of using skilled ANC attendants. The proportion of Orthodox Christian women who use skilled ANC attendants is 40% higher than their Muslim counterparts (Shiferaw *et al.*, 2013:7).

Research done by Shiferaw, et al (2013: 7)assert that seeking of skilled delivery attendants was significantly associated with religion of women. Other study shows that Orthodox Christians and Protestants were more likely to use skilled delivery attendants compared to women of other religions (Tarekegn, Lieberman and Giedraitis, 2014). On the other hand the study conducted by Ergano et al.(2015: 113) shows that Christian and Muslim women were more likely to use maternal health services than other religions.

A similar research conducted in Ethiopia on women's institutional delivery behaviour indicates that Muslim women were 80% less likely seek institutional delivery as compared with non-Muslim women. This study revealed that religion exerted barriers at the levels of the socio-cultural themes. Therefore, Muslim women felt comfortable only when they are touched and seen by their husbands. That is why they do not want to be attended by male midwives (Kifle *et al.*, 2017).

2.3.3.5 Ethnicity

Ethnic minority populations across the world often have worse social and health outcomes than non-ethnic minority populations (Kate Silburn, 2016). Some ethnic minority populations are far better than others in the same society, and where ethnic variation has been documented the size of effect varies greatly (Anderson *et al.*, 2007:880). Ethnic minority women were less likely to use antenatal care, to give birth in a health facility, or to immunize their child (Su et al., 2016: 11).

A study conducted in Ethiopia, for example, indicates that 66% of ethnic Gurage women use skilled ANC care, while 38% of Amharas, 51% of Tigres and 32.7% of Oromo's use skilled ANC care (Shiferaw *et al.*, 2013). Similarly, Gurage, Amhara, Oromo and Tigre women were more likely to seek skilled delivery attendance than Wolaita women (Shiferaw *et al.*, 2013).

Women with traditional religion may be less modern and more inclined to traditional beliefs. The reason for the low maternal health service utilization by the Wolaita ethnic group because the group may not support facility delivery due to their cultural beliefs and values on maternal healthcare (Tarekegn, Lieberman and Giedraitis, 2014).

2.3.3.6 Polygamy

Other factors which affect women's psychological and physical health is traditional practices based on patriarchal beliefs (Lowe, Chen and Huang, 2016:8). Polygamy, a common marital practice in many African countries, is a deeply engrained culture. For example, having multiple partners is considered part of Gambian masculinity (Njie, Manion and Badjie, 2015:57). Many studies have shown that women in polygamous unions, especially senior wives, may suffer from more psychological

disorders, as well as more familial and economic problems, compared to their counterparts in monogamous marriages (Lowe, 2017).

Again, a study carried out in Somali region of Ethiopia shows that polygamy is most common among Somali women (29%). Five percent of men aged 15-49 are in a polygamous union, whereas younger men and men not in a union were more likely to accompany their spouses than older men and men in stable relationships (Feyissa and Genemo, 2014). Polygamous women are also less likely to obtain treatment for which a monetary fee is required (Thobejane and Flora, 2016:1062).

This research finding shows that women need to work exceedingly hard to save money for their medical and other related expenses like transport fares, which are unlikely to be provided by polygamous husbands (Lowe, Chen and Huang, 2016:6). Yet, studies show that giving women decision-making powers by their spouses could raise the rates of delivery at healthcare facilities (Lowe, Chen and Huang, 2016:7).

2.3.3.7 Violence on Women

Worldwide 35 percent of women have experienced physical or sexual IPV or non-partner sexual violence; 38 percent of women who were murdered were murdered by their intimate partners (WHO, 2011). Estimates of IPV by World Health Organization in different region are as follow: South- East Asia (37.7 percent), the Eastern Mediterranean (37.0 percent), and Africa (36.6 percent). These regions have the highest rates (World Health Organization, 2017). A systematic review of population-based studies suggests that 8.1 percent of women and 5.5 percent of men experienced some form of sexual abuse before age 15 (Nybergh *et al.*, 2013). The prevalence was higher among women than men in every region (Anand and Singh, 2017).

A study conducted In south Asia shows that 35% of women indicated that wife-beating is justifiable if they disrespected their in-laws or argued with their husbands or failed to provide good food, housework and childcare or went out without permission (Bishwajit, Sarker and Yaya, 2017). Other studies conducted on Northern India shows that 25% of husbands reported having perpetrated physical violence against their wives during the preceding year and 30% reported having committed

sexual violence (Gupta and Samuels, 2017). In connection with this study, another study in Bangladesh shows more than one in three men reported physical violence, sexual violence, or both against their wives in the past 12 months (Bishwajit, Sarker and Yaya, 2017).

Another research indicates women who have experienced IPV are 1.5 times more likely to have STIs and, in some regions, HIV/AIDS; more than twice as likely to have an abortion; almost twice as likely to report depressive episodes and alcohol use problems; and 4.5 times more likely to have attempted suicide, compared with women who have not been exposed to violence. Besides, women who have experienced IPV are 16 percent more likely to have a low birth weight baby (WHO, 2015c).

2.3.3.8 Female genital mutilation / Cutting

Globally, it is estimated that 200 million girls and women alive today have undergone some form of FGM. FGM is declining in the majority of countries where it is prevalent; most of these countries are also experiencing a high rate of population growth. In other words, the number of girls who would undergo FGM would continue to grow if efforts to prevent FGM are not significantly scaled up (WHO 2016).

Female genital mutilation (FGM) refers to all procedures that involve partial or total removal of the external female genitalia or other injury inflicted on the female genital organs for reasons that are not medical (OHCHR, UNAIDS, UNDP, UNECA, UNESCO, UNFPA, UNHCR, UNICEF, UNIFEM, 2008:4).

Women with FGM/C Types I, II and III were more likely to experience the following: caesarean section, post-partum haemorrhage, extended maternal hospital stay, infant resuscitation, stillbirth or neonatal death, low birth weight and fistulae is health risk associated with FGM/C (Elizabeth Gezahegn King, Lottie Howard-Merrill, 2014). Similarly, studies show that women with FGM are significantly more at risk of caesarean section, postpartum haemorrhage, episiotomy, extended maternal hospital stay, resuscitation of infants, low birth weight infants, and inpatient prenatal death (Egenberg *et al.*, 2017).

As in many other developing countries, FGM is widely practiced in Ethiopia, and it is a major contributing factor for the high maternal mortality in the country (Demissie, Sundby and Gele, 2016).This practice is considered as a major national public health problem, as it affects not only the physical and mental well-being of more than half of the Ethiopian population but also the socioeconomic development of the country (Demissie, Sundby and Gele, 2016). However, there is a great variability in the prevalence of FGM among different regions in Ethiopia, ranging from 29% in Tigray, 27% in Gambela, 82% in Harari, 87% in Oromia and 97% in Somali regions (Setegn, Lakew and Deribe, 2016). In contrast to this, the Somali and Afar ethnic groups perform FGM with the belief that it is required by religion and a means to ensure virginity (Setegn, Lakew and Deribe, 2016: 12).

2.3.3.9 Gender equality and discrimination

According to Article 25 of the Constitution of the FDRE, all persons are equal before the law (EHRC, 2009). Article 35 of the Ethiopian constitution also made it very clear that 'Women have equal rights with men in all economic, social and political activities (FDRE, 1995). To this end, the Ethiopian government prepared a women policy and development package based on these articles (UN, 2013). Institutional mechanisms and the implementation of the Women Policy and the Development Package have been rolled out across the nation (Pasquale, Jarvese et al. 2013). The main objective of the Women Policy is to create an enabling environment for women to actively participate at all levels in the economic, social, and political activities (FDRE, 2017a).

A recent study from Maputo Province found that the high number of maternal deaths and severe maternal morbidities were influenced by lack of decision making power (Magee, Von Dadelszen and Munguambe, 2016). Studies conducted in rural southern Mozambique shows that spatial disparities in geographic access to reproductive health services and gender inequality in decision making in pregnancy (Magee, Von Dadelszen and Munguambe, 2016:128). In connection with this, a study found in low and middle income countries misalignment between current antenatal care provision and the social and cultural context. Given that antenatal care provision may be theoretically and contextually at odds with local beliefs and experiences, even high-quality antenatal care may not be utilized unless their views and concerns are addressed and incorporated into care (Finlayson and Downe, 2013:3). One of the priority interventions from Mozambique's National Strategic Plan

for Maternal and Prenatal Mortality Reduction, for example, is to empower communities to participate actively in the process of identification and analysis of their own health problems (WHO *et al.*, 2015).

2.3.3.10 Impact of GBV on reproductive health

Researches demonstrated that SRH is of fundamental importance to national health and to the economic development at large (Bishwajit, Sarker and Yaya, 2017). Researchers across various global regions have identified GBV as a major contributor to poor reproductive outcomes (Bishwajit, Sarker and Yaya, 2017). Abused women have been found to be twice as likely to report unintended pregnancy and three times more likely to give birth as an adolescent compared to those not experiencing any violence (Silverman and Raj, 2014). Another study including 65,610 married women in reproductive age (15–49 years) reported that 23.9% of women experienced at least one form of IPV and had pregnancy related complicacies (Bishwajit, Sarker and Yaya, 2017).

Research conducted in Lahore (Pakistan) showed that women who experienced domestic violence were more likely to suffer from poor prenatal care, unplanned pregnancies and poor self-reported reproductive health and lack of cooperation in contraceptive use from husbands as compared with non-abused women (Bishwajit, Sarker and Yaya, 2017). Growing evidence supports the fact that state of maternity does not have any significant protective effect on women from violent spousal behaviour (Bishwajit, Sarker and Yaya, 2017). In connection with this, Bishwajit, Sarker & Yaya (2017), have also shown that gender-sensitive healthcare policies can make a difference in the lives of those who experience abuse.

2.3.3.11 Spiritual beliefs

Evidence exists to show that ethnicity and religion are often considered as markers of cultural background and thought to influence beliefs, norms and values in relation to women's childbearing and place of delivery (Church *et al.*, 2010:8). It is also believed that certain religious groups may be discriminated by staff, making them less likely to utilize modern healthcare services (Church *et al.*, 2010:8). In Ethiopia for instance, ethnic differences did not influence place of delivery but members of traditional religious groups were less likely to use delivery services compared to Orthodox members (Gabrysch and Campbell, 2009). Though several reviews suggest positive impact of religion on health, others did not accept such claims

(Church et al., 2010:9). Another finding suggests that members of spirit-type denomination that decline utilizing modern healthcare services in Zimbabwe could explain higher death compared to mission denominations in the past (Church *et al.*, 2010:8).

2.3.3.12 Media saturation

A study by Tarekegn and his associates (2014)shows that in multivariate analysis use of public information did not have any association with the utilization of maternal health services. While in bi-variate analysis reading newspapers was significantly associated with the use of skilled ANC services. Similarly, according to Tarekegn, Lieberman & Giedraitis (2014), women who listen to radio programs were more likely to use maternal health services than those who never listen and the effect of watching television was also similar to listening to radio programs.

A research by Larrat, Marcoux &Vogenberg (2012) and Acharya et al.(2015) showed that the use of maternal health services increased partly because of improved dissemination of maternal health information through various mass media sources. A study in Nigeria has shown that community media saturation was found to be a strong association of maternal health service utilization (Babalola, 2014b:7).

2.3.3.13 Prevalence of norms for small family size

In many relationships, decision-making around family planning and contraception may not include, or may include to a greater or lesser extent, the potential child-bearing girls and women themselves. Men play a greater role in highly gender-stratified populations (Herbert, 2015:9). Family (e.g. mothers-in-law) and community members (e.g. elders) may also play a role in decision-making. Those making the decisions may not discuss it with others involved (for varied reasons, e.g. lack of experience, or not feeling comfortable talking about sensitive issues) (Herbert, 2015:9). While a key reason for not using contraception is opposition by a male partner. A study in the Indian Uttar Pradesh region found ‘restrictions on wife’s mobility showed significant negative relationship with current contraceptive use’ (Adedokun *et al.*, 2017). The women participants also seemed to have similar misconceptions and fears about contraceptive (Herbert, 2015; Kabagenyi *et al.*, 2016). Women who gave more (six and above) children were 89% less likely to seek ANC service as compared with who had one (Adedokun *et al.*, 2017; Kifle *et*

al., 2017). Accordingly, higher number of children was associated with lower service utilization (Adekanmbi *et al.*, 2017:70).

2.3.4 Interpersonal or family level factors

2.3.4.1 Husbands' knowledge and perception about pregnancy care

A research conducted by Hagos*et al.,* (2014) shows that women's intention about where to deliver was associated with use of professional medical care. The studies conducted by Abera, G/mariam & Belachew (2011) and Kifle*et al*. (2017) showed that individual attitude towards healthcare providers and perceptions on the quality services provided in health facilities were influencing factors for maternal health service seeking behaviours of women considered. Women who had knowledge on pregnancy complication by far utilized ANC services as compared to their counterparts, and Women who had a history of ANC visit and knowledge about pregnancy complications were more likely to seek institutional delivery as compared to their counterparts (Kifle *et al.*, 2017).

A qualitative research conducted by Kifle*et al*.(2017) on attitude and perception of women reveals that the women in the study area felt they would go to health facility only when they get sick. Moreover, the same study indicated that women hesitated to go to health centres especially for delivery because of their fear that all women at health facility are giving birth in episiotomy (cutting to widen the opening of the vagina) which the women did not want. Their fear comes from what they hear people talking about the issue which has no scientific evidence.

The findings of Kifle and his colleagues' study show that the number of women who visited health facilities at least once during their recent pregnancy for antenatal care service utilization was 74.3%, and only 10% of the women visited health facilities at least 4 times for same service (Kifle *et al.*, 2017).Furthermore, the study shows that individual attitude towards healthcare providers and perceptions on the quality of services provided in health facilities were indicated as influencing factors for maternal health service seeking behaviours of women (Berhan and Berhan, 2014). Similarly, another study in Mali found women's own perceptions of their self- efficacy and the value of women in society as determinants for their preventive and health seeking behaviour (White *et al.*, 2013). Lastly, women who have had ANC during the

index pregnancy were more likely to use skilled delivery attendants and PNC services (Shiferaw *et al.*, 2013).

The qualitative research conducted by Kifle *et al*.(2017), shows the attitude and perception of the women. They claim that there are some service providers who do not serve customers properly. They further say there is no reason to visit health centres if they do not get the services they want.

2.3.4.2 Influence of mothers-in-law, neighbours, family members and relatives

The main reason for home delivery in slums in Mumbai, India, and in Ethiopia is custom (Mannah *et al.*, 2014). The mother-in-law usually makes decisions about a pregnant woman's workload, care-seeking and the delivery process in rural Nepal (Lewis, Lee and Simkhada, 2015), Similarly, initiatives that have significantly increased facility-based deliveries can be seen in Kenya, which implements a voucher programme that enables access to four antenatal care visits, a facility based delivery including caesarean section, and treatment of delivery complications (Bellows *et al.*, 2013), and women's intention about where to deliver (Shimpuku et al., 2017). Also other members of the family network like mother-in law and sister-in-law might get involved in the decision-making, which has been reported from Ethiopia but likewise from other countries such as Nepal and Nicaragua (Mannah *et al.*, 2014). Surprisingly, mothers-in-law tended to have a negative influence on maternal health service use (Lewis, Lee and Simkhada, 2015).

2.3.4.3 Egalitarian sharing of conjugal decision-making power

Cultural factors apparently affect the utilization of maternity care services in developing countries. For instance, Bayeh (2016) reports that in many parts of Africa women's decision making power is extremely limited, particularly in matters of reproduction and sexuality. Similarly, Lan&Tavrow (2017) assert that high levels of maternal mortality are strongly correlated with high levels of social inequality, especially unequal access to health services. The pattern of beliefs influences how symptoms are recognized, to what they are attributed, and how they are interpreted and affects, how and when health services are sought (Ogunlesi and Abdul, 2015).

2.3.4.4 Whether pregnancy was wanted or not

Ethiopia is one of the five countries that together account for 50% of the world's maternal deaths. In these countries 25,000 women die of complications during

childbirth every year, and 500,000 suffer long-term disabilities from pregnancy and childbirth complications every year.

A study conducted in Afghanistan shows that 15% deliveries take place in health facilities, 34% deliveries are attended by skilled birth attendants and 15% women between 15 to 49 years use contraceptives (Agili hezron ouma, 2014). However, another study conducted in Somalia shows that one in every 12 women dies due to pregnancy-related reasons and 9% births are attended by skilled birth attendants (Abdurashid *et al.*, 2018). Finally, wanted-ness of the index pregnancy did not have any significant association with the use of ANC, skilled delivery attendants and PNC services (Shiferaw *et al.*, 2013).

2.3.5 Individual level factors

Socio demographic factors including maternal age, education, parity and wealth were associated with delivery assisted by a skilled attendant as well as timing and number of antenatal care visits (Boamah, Amoyaw and Luginaah, 2015). An ethnographic study of childbirth conducted by reveals that pregnant women lack the power to demand biomedical care, and that men remain largely uninvolved in the care-seeking process (Jansen *et al.*, 2018). Similarly, other indicators of women's empowerment, including age at birth of their first child and education and knowledge about sexually transmitted diseases, could significantly increase the use of maternal health services (Akowuah, Agyei-baffour and Awunyo-vitor, 2018).

2.3.5.1 Maternal age

Adolescent pregnancy forces many girls to drop out of school, with long-term consequences for their futures and those of their families and communities (Cheng *et al.*, 2012). Similarly, 36 per cent of women in the developing world were married before age 18. Rates of child marriage are three times higher among the poorest adolescent girls than among their peers from the richest households. Early marriage puts girls at great risk for premature childbearing, disability and death (Cheng *et al.*, 2012). Teenage mothers are more likely to experience adverse pregnancy outcomes and are more constrained in their ability to pursue educational opportunities than young women who delay childbearing and the proportion of women age 15-19 who have begun childbearing rises rapidly with age, from 2 per cent among women age 15 to 28 per cent (CSA, 2014:15).

According to Ethiopia's statistical authority, Ethiopian women begin sexual activity before Ethiopian men. The median age at first sexual intercourse for women age 15-49 is 16.6 years, compared to 21.2 years among men age 15-49 Women with more than secondary education initiate sex 6.3 years later than women with no education (22.3 years versus 16.0 years). One in four women begins sexual activity before age 15, while 62% of girls have sex before age 18(CSA, 2014). Women get married 0.5 years after sexual initiation at age 17.1. Ethiopian men, however, marry much later than women at a median age of 23.7 years. Women with no education marry 7.7 years earlier than women with more than secondary education (16.3 years versus 24.0 years). Ethiopian women are married at age 18, compared to 1 in 10 men (9%) and women were giving their first birth within 2.1 years of their marriage. The median age at first birth for women is 19.2 years. Nearly 4 in 10 (38%) women give birth at age 18 (Wado, 2013).

The Ethiopian case reveals that 13% of adolescent women age 15-19 are already mothers or pregnant with their first child. Teenage pregnancy decreases with increased education; 28% of young women with no education have begun childbearing compared to 3% young women with more than secondary education. Regionally, teenage pregnancy ranges from 3% in Addis Ababa to 23% in Afar (CSA, 2014: 4).

2.3.5.2 Maternal education

A World Health Organization report on Asia and the Pacific shows that female literacy rates are strong predictors of maternal mortality rates; the more literate the female population are, the lower the maternal mortality rate (Pambid, 2015). Girls' and women's education yield critical health benefits using data from the World Health Organization's *Global Survey on Maternal and Prenatal Health*, researchers found that women with no education were nearly three times more likely to die during pregnancy and childbirth than women who had finished secondary school (Karlsen *et al.*, 2011).

The comparison with the reference data shows there are very good agreements for low education of the mother, preterm birth, and multiple births. Similarly, a research done in Ghana also has found that education of women and their husbands has had a significant effect on the utilization of all the three maternal health services (Speizer,

Story and Singh, 2014). Other studies also showed that the effect of maternal education level was a strong influence on maternal health service utilization(De Allegri *et al.*, 2011).

One of the findings of studies in Ethiopia suggested that women whose husbands are able to read and write and have formal education were more likely to seek postnatal care service (Hagos *et al.*, 2014; Workineh and Hailu, 2014). However, women 36 years or older and with a primary level of education, or no formal education were more likely to experience an adverse outcome (Asundep *et al.*, 2013). On the other hand, variables such as educational status, occupational status, birth order of the last birth and knowledge about pregnancy danger signs were significantly associated with antenatal care service utilization (Kifle *et al.*, 2017).

Women who had formal education and are able to read and write were 2 times more likely to seek institutional delivery as compared to their counterparts; women who are able to read and write were 4.8 times more likely to seek antenatal care services than their counterparts, and also women with formal education and/or ability to read and write were more likely to seek postnatal care service utilization as compared with their counterparts (Kifle *et al.*, 2017).Lastly, it was surprising that education was not among the predictors for men´s participation in antenatal visits (Bakibinga, Mutombo and Mukiira, 2015).

Skilled ANC utilization increases as the level of education of women increases. According to a study done by Shiferaw *et al.*(2013), 25% of women who had no education used skilled ANC attendants compared with 45.5% of those with primary education, 85.6% of those with high school education and 90% of those who had higher than secondary level education. Similarly, women's and their husbands' education was found to have a significant association with the use of skilled ANC; use of skilled delivery attendants was significantly associated with both women's and their husbands' education (Shiferaw *et al.*, 2013).

The proportion of teenagers who have started childbearing decreases with increasing level of education: nearly 3 in 10 women aged 15-19 with no education (28 per cent) have begun childbearing compared with 12 per cent of teenagers who have attained primary education, and 4 per cent of those who have attained secondary education (CSA, 2014:15). Similarly, a study in Ghana showed that

women with completed primary education utilized highly skilled attendants at delivery relative to those women with less education (Manyeh *et al.*, 2017).

It has become clear that women's educational status contributed to their antenatal healthcare service seeking behaviour in maternal healthcare service. several studies found that women who are able to read and write and who have attended formal education were more likely to seek antenatal healthcare (Pell *et al.*, 2013; Bayu *et al.*, 2015b)and institutional delivery(CSA, 2014; Azuh, Fayomi and Ajayi, 2015a).

2.3.5.3 Autonomy

Researches by Tsegay *et al.*(2017) *and* Villadsen *et al.*(2014)indicate that use of skilled ANC service is one of the strongest determinants for the use of skilled delivery attendants during delivery and PNC services after delivery. However, a study conducted by Tarekegn, Lieberman and Giedraitis (2014)also indicates women who have autonomy to decide on healthcare spending by themselves were more likely to utilize it than women whose healthcare spending was decided by other people.

A study in Benin reported that factors like husbands' approval and money for treatment had negative effects on maternal health seeking behaviour (Akunga, D, Menya, D & Kabue, 2014). On the other hand, the gender disparity in land ownership impacts the economic status of women and further perpetuates a high level of dependency on their husbands, leading to male dominance (Azuh, Fayomi, & Ajayi, 2015:105). Adding another voice, findings from a research carried out in Ethiopia by Shiferaw and his associates (2013) indicated that although women may have access to land or retain control over their own income, many have no influence on the use of their husband's income. Finally, autonomy of women on healthcare spending was found to have a significant association with the utilization of skilled ANC and delivery attendants. It has been stressed by these researchers that autonomous women were more likely to use and delivery attendants (Shiferaw *et al.*, 2013).

2.3.5.4 Marital status

Again, research conducted by Shiferaw*et al.* (2013)shows that marital status of women was a determinant of use of maternal healthcare services. They pointed out that married women and never married women were found to be less likely to use skilled delivery attendance than divorced/separated/ widowed women. However, the

utilization of antenatal care and delivery service declined with the increase in number of births. Given women had six and above safe delivery history, they may feel healthy and be less likely to seek maternal healthcare services (Adedini *et al.*, 2015).

2.3.5.5 Financial burden/income (Occupation)

The present constitution of the Federal Democratic Republic of Ethiopia, Article 35.4 acknowledges that women's status in the community is low. The family system in nearly all communities in the country is patriarchal- marked with dominance of male and the elderly. Decision making in a household is dominated by males (UNICEF, 2013). Housewife women were 4.7 times more likely seek utilization of antenatal care service when compared to women with petty trade and daily labour work (Kifle *et al.*, 2017). Similarly, with respect to occupation, in Ethiopia women who utilize the services least were found to be the spouses of agricultural-employees (5 %) and not those of unemployed men(UNICEF, 2013). In addition, women who had been employed were more likely to use skilled ANC services than unemployed women (Shiferaw *et al.*, 2013).

A recent study in three provinces of China explored direct and indirect costs and it found that the direct costs of a maternal death were significantly higher than the costs of childbirth without a maternal death (Kes, 2015). Hospitalization and emergency care expenses represented the largest proportion of non-funeral direct costs (Kes, 2015).

2.3.5.6 Knowledge and perceived needs of maternal healthcare

A study done in east Wollega, a zonal administrative unit in Ethiopia, by Feyissa & Genemo (2014) shows the number of women who visited health facilities at least once during their recent pregnancy for antenatal care was 74.3% and only 10% of the women visited health facilities at least 4 times for antenatal care service utilization. However, a study carried out in Indonesia indicates that nearly 80% of women received ANC more than four times, and a qualitative study done in three Africa countries indicate that92% Kenyan, 98%Malawianand 92% Ghanaian women received ANC services at least once (Pell *et al.*, 2013). Another study conducted in Metekel Zone of Northwest Ethiopia by Seifu, Debebe, Meselech, Alemayehu, Mesganaw, and Saifuddin (2014) reported that the number of women who had attended institutional delivery were very low.

Studies by Azuh, Fayomi, & Ajayi and by CSA showed women who had knowledge of pregnancy complications were by far more likely to seek antenatal care, postnatal care and delivery service utilization than their counterparts (Azuh, Fayomi andAjayi, 2015b;CSA, 2014). Similarly, women with knowledge of pregnancy complications and women who gave their last birth at health facility were more likely to seek postnatal care service utilization as compared with their counterparts (Kifle *et al.*, 2017).

2.3.5.7 Mistrust (Afraid)

Several studies have demonstrated that mistrust or fear of medical staff is a factor that influences women's choice and utilization of maternal health care services. For example, a study report by Faisal (2014) shows that women lack confidence in their ability to give birth vaginally in an MCH facility and they fear birth injury to themselves and their baby (Faisal I, 2014). This finding also confirms a previous finding that reveals men have fears about their partner's coping with pain and the safety of their partner and baby during the birth process (Gillet *et al.*, 2014).Studies by Strasser *et al.*(2012) and Moodley *et al.* (2014) show that pregnant women and their partners seek medical solutions to help them to cope with their fears about birth (Strasser *et al.*, 2012; Moodley *et al.*, 2014).

CHAPTER THREE

CONCEPTUAL FRAMEWORK

3.1 INTRODUCTION

The previous chapter presents a detailed review of the literature as it relates to maternal health. The presentation of the review follows a logical sequence by reviewing how scholars in this field have examined the concept of health and the implications of such a conceptualization on government policies toward the provision of health services. The present chapter discusses the theoretical framework which applies to this study. According to Parsons *et al*. (2011), conceptual frameworks are constructed mechanisms for developing or organizing structures along which information, knowledge and data could be assembled. A conceptual framework further delineates the units to be analyses into various perspectives, and in accordance with the themes under which the variables have been constructed or organized (Weibell, 2011).

3.1.1 The concept of health

A conceptual framework is typically developed from theory. It identifies the concepts included in a complex phenomenon and shows their relationships (Leshem and Trafford, 2007). The relationships are often presented visually in a flowchart, web diagram or other type of schemata (Leshem and Trafford, 2007). Lechissa (2017) further explains that a conceptual framework, displayed either graphically or in narrative form, presents the main things to be studied such as the key factors, concepts, or variables and the presumed relationships among them (Lechissa, 2017).

In an attempt to operationalize health with universal appeal, Breckenridge et al.,(2014) has defined health as a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity (WHO, 2014). Although this definition has been widely adopted, a number of scholars still identify some problems with it (Alaskari. *et al*., 2012). For example, there is a problem of identifying and actually observing such abstraction as mental and social wellbeing, even though the physical dimension can be subjected to some measurement (Serag El Din *et al*., 2013). In other words, can anyone fulfil all the conditions of health?

Religion and spiritualism are very much alive in Africa, and their influence on health and illness cannot be overlooked in contemporary African societies, since notions of illness causation and healing span the physical and spiritual domains (Kahissay *et al*., 2017). Therefore, as noted by (Wiredu, 2008, Bouchard, 2009), the pervasiveness of spirituality in the lives of an average Ethiopian and the belief that the supernatural has profound influence on the physical is of prime importance in defining health. In the same vein MacIntyre (2003), refers to a healthy condition as being sound in body, mind or spirit. Health is a situation of being free from physical disease or pain or mental disorder or freedom from emotional or spiritual drudgery.

3.1.2 Maternal health

Maternal health is defined by WHO as the "physical wellbeing of a mother during pregnancy, childbirth and postpartum" (WHO, 2010). Scholars such as (Molefe, 2017, Idowu, 2013) have identified early childbearing as a multifaceted condition that has many dimensions: cultural, logistical, and economic. Among the dimensions are poor access to public services and infrastructure, unsanitary environmental surrounding, illiteracy and ignorance, poor health, insecurity, voiceless and social exclusion, as well as household income and food insecurity are life-shortening factors which can also increase a woman's risk of dying in the process of reproduction. Lule *et al*. (2015) have also noted that a woman's age, her ability to use reproductive healthcare services effectively, and general health status, including nutrition, contributes to poor maternal health.

Therefore, there is an urgent need for programmes that address the health and safety of pregnant adolescents and the need to teach young women the skills to build a successful future (Filby *et al*., 2016). Several critical factors have been identified for improving adolescent maternal health. These factors include encouraging young women to use prenatal care to identify and treat malaria, anaemia, and other health issues; providing obstetric care to ensure safe delivery for young mothers and their infants; offering postnatal care to identify post-partum health issues, and providing new-born care and offering contraception to accomplish birth spacing (Lassi *et al*., 2014).

Ensuring reproductive health involves provision of not only modern quality health services and attendance to the same, but also personal health consciousness during pregnancy. The sooner healthy lifestyles begin in pregnancy, the better the chances of ensuring the mother's health and that of the baby. Ideally, prenatal care should start before the pregnancy. It is necessary for a woman to get ready for pregnancy, to consult a healthcare provider for a complete check-up to make sure she is in good health (WHO, 2016b). Healthy lifestyles contribute both to the general health of pregnant women and to that of their babies (Jersey *et al*., 2013). For the baby's sake and that of the mother, it is important for a woman to take good care of herself during pregnancy (Chiapperinm, 2018). For example, as noted by Kankova *et al*.(2015), because abnormal level of glucose increases the risk of birth defects and other complications, it is advisable that women with diabetes must be careful about keeping their blood glucose level under control, both before they conceive and during their pregnancy (Lassi *et al*., 2014). In fact, it is just the opposite; a pregnant woman needs about 300 extra calories a day, especially later in pregnancy when the baby grows quickly. If the woman is very thin or carrying twins, she needs even more. But if she is overweight, the healthcare provider may advise that she consumes fewer extra calories (Kaiser, 2014).

Achieving maternal health is multifaceted and all efforts must be put in place to ensure the reduction of the alarming rate of maternal health complications in Africa. Ninety-nine per cent (99%) of the estimated figure for maternal deaths worldwide happened in developing countries (Merdad and Ali, 2018). In fact, Ethiopia is one of the developing countries where maternal morbidity and mortality rates are the highest in the world (WHO, 2018). According to World Health Organization report (2016), 11,000 maternal deaths occurred and the maternal mortality ratio was 353 deaths per 100,000 live births in Ethiopia.

3.1.3 Socio-cultural determinants on maternal healthcare

Socio-cultural factors linked with use of MHS vary across and within cultures, and associations between the factors and use of MHS have been observed at individual level factors, interpersonal or family level factors, community and social level factors , organizational and health system or policy levels factors (Noel-Thomas, 2010).Accordingly, individual level factors include maternal age, maternal education,

decision making autonomy (Babalola, 2014), marital status, occupation, knowledge and perceived need of maternal healthcare, mistrust(fear of C-section), shyness to be seen by unknown individuals, financial burden/income, and family support for home delivery (Hodin, 2017). At the interpersonal or family level factors, studies have found high level of family tradition, parity, husbands' knowledge and perception, influence of mothers-in-law, influence of other family members and relatives, egalitarian sharing of conjugal decision-making power and whether pregnancy was wanted or not (Upadhyay, 2014; Darcy White, 2013). Community and social level factors include the influence of CHWs, poverty, religious beliefs, ethnicity, traditional practices, cultural/spiritual beliefs, influence of neighbors, media saturation and prevalence of norms for small family size; organizational and health system or policy levels are contextual factors that include the availability of services(i.e. functional health services), behavior/quality of healthcare providers and accessibility(i.e. distance, place and transportation) (Evjen-Olsen *et al.*, 2008). Other studies have focused on community compositional effects and they have found that at the community level the proportion of educated people, poverty level, media saturation, and prevalence of norms for small family size are important correlates of use of MHS (Babalola, 2014, Ononokpono, 2015).

In this chapter, an ecological framework (Nutbeam, 2008, Sithole, 2013), which is in line with guidelines of the Ottawa Charter, has been used to delineate the social climate, key players, and strategic action to be taken in policy-making, to make healthy public policy a political reality and to know how this can be carried out. This framework has been used because public health sees human health in an ecological relationship with all in its natural and human made habitats (McLaren and Hawe, 2005, Bentley, 2014). Also, the framework is adopted in this study because it is relevant to both high and low income countries (Colin Das, 2012). This view derives from a growing evidence that health and illness are embedded in the household, workplace, school, community and larger environments in which we live and evolve our social and individual, public and private, informal and organized ways of living(UNESCO, 2009).

Having outlined the various guiding principles that led to the use of the ecological framework in the study, this section further defines the various elements of the conceptual model, their interrelationship and the assumptions made for empirical

analysis (Nilsen, 2015). The use of a theory has thus been an important aspect in developing the conceptual framework (Creswell, 2014). The theory provides the analytical framework through which to form logical interpretations of the facts collected in the study and guides the search for new information (Ngulube, 2015). The research used the theory that maternal health efforts could be better supported at an implementation level if these activities were adequately expressed in other strategic health policy documents (Berman, 2011).

The conceptual framework for maternal health is shown in Figure 3.1. Each component of the framework is discussed briefly using theoretical considerations and supporting evidence from the literature section.

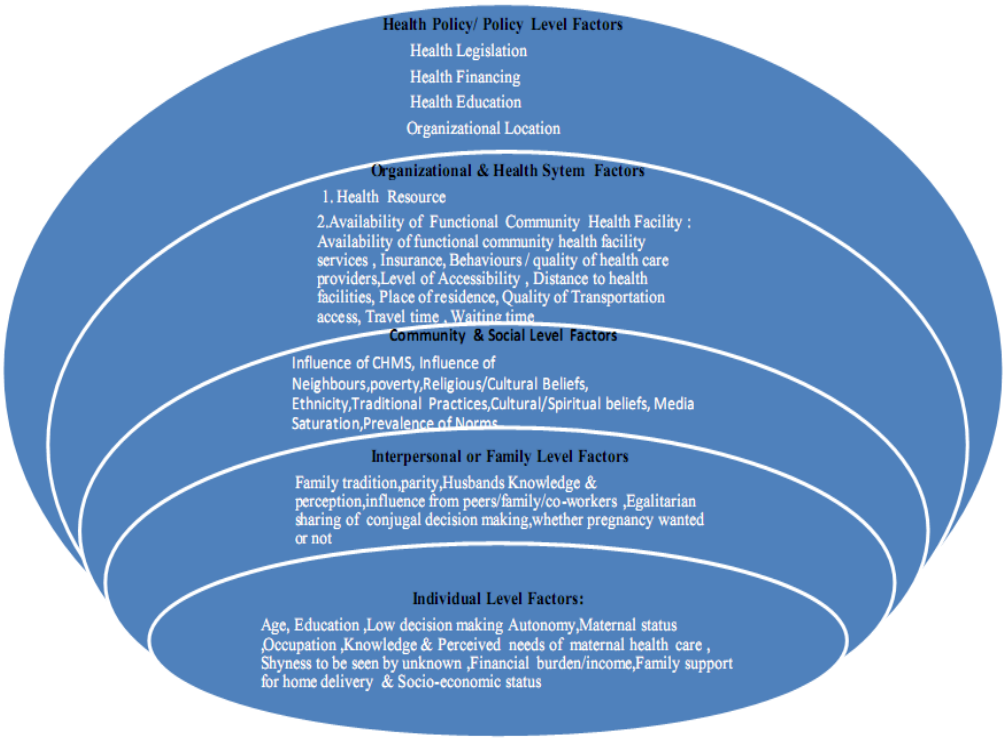

Figure 3.1: The social ecological model

Source: (World Health Organization; 2002)

Fig 3.1 Showing the schematic representation of the conceptual framework for factors influencing maternal health care services along the dimensions of the Social-Ecological Model

3.2 COMPONENTS OF THE CONCEPTUAL FRAMEWORK

The ecological framework is based on evidence that no single factor can explain why some people or groups are at higher risk of interpersonal influence, while others are more protected from it (SIDA, 2015). This framework views interpersonal violence as the outcome of interaction among many factors which operate at five distinct but interrelated levels—the individual, the interpersonal, the community, organizational, and the policy/enabling environment (Svanemyr *et al*., 2015).

3.2.1 Policy environment

Policy or enabling environment refers to local, state, national and global laws and policies, including policies regarding the allocation of resources for maternal, new-born, and child health and access to healthcare services, to restrictive policies (e.g., high fees or taxes for health services), or to lack of policies that require childhood immunizations (UNICEF, 2014). Policy analysis specifically considers: (a) the roles of action and unintended actions; the influence of actors who influence policy change at different levels of influences from individual, organizational, national to global and their interests; (b) the influence of power relations, institutions (the rules, laws, norms and customs that shape human behavior) and ideas (arguments and evidence), over health system operations and policy change within them; and (c) global political economy issues. It also seeks to understand the forces influencing why and how policies are initiated, developed or formulated, negotiated, communicated, implemented and evaluated, including how researchers influence policymaking. The latter includes considering whether and why routine practices differ from, and may even contradict, formal policies and generate an implementation gap between policy intentions and routine practice (WHO, 2012).

Finally, the policy analysis may be conducted retrospectively to understand past experience, and it can also be used prospectively to support health policy change and health system strengthening. Prospective policy analysis has been proposed as an important support for advocacy efforts and as a key component of health system leadership and governance activities (Edelman *et al.*, 2017).

3.2.2 Organizational level

The fourth level looks at the broad societal factors that help create a climate in which violence is encouraged or inhibited. These factors include social and cultural norms that support maternal health as an acceptable way to resolve conflicts (Glanz, 2008).

Other large societal factors include the health, economic, educational and social policies that help to maintain economic or social inequalities between groups in society (UNICEF, 2014). Organizations or social institutions with rules and regulations for operations that affect how or how well, for example, MCH services are provided to an individual or a group. These include economic and social policies that maintain socioeconomic inequalities between people, the availability of weapons, and such as those around male dominance over women, parental dominance over children and cultural norms that endorse violence as an acceptable method to resolve conflicts.

3.2.3 Community level

The third level explores the settings, such as schools, workplaces, and neighbourhoods**,** in which social relationships occur and it seeks to identify the characteristics of these settings. Relationships among organizations, institutions, and informational networks within defined boundaries, including the built environment (e.g., parks), village associations, community leaders, businesses, and transportation (UNICEF, 2014). Prevention strategies at this level impact the social and physical environment – for example, by reducing social isolation, improving economic and housing opportunities in neighbourhoods, as well as the climate, processes, and policies within school and workplace settings (Dahlberg LL, 2002).

3.2.4 Interpersonal level

The second level examines close relationships that may increase the risk of experiencing maternal mortality and morbidity. Formal (and informal) social networks and social support systems that can influence individual behaviours, including family, friends, intimate partners and peers, co-workers, religious networks, customs or traditions (Mignone et al., 2015). A person's closest social circle-peers, partners and family members-influences their behaviour and contributes to their experience. Prevention strategies at this level may include parenting or family-focused prevention programs, and mentoring and peer programs designed to reduce conflict, foster problem solving skills, and promote healthy relationships (UNICEF, 2014).

3.2.5 Individual level

The first level identifies biological and personal history Characteristics of an individual that influence behaviour change, including knowledge, attitudes, behaviour (D57, 2014), self-efficacy, developmental history, gender, age, religious identity,

racial/ethnic identity, sexual orientation, economic status, financial resources, values, goals, expectations, literacy, stigma, and others (UNICEF, 2014). Prevention strategies at this level promote attitudes, beliefs, and behaviours that prevent maternal mortality and morbidity. Specific approaches may include education and life skills training (Jong, 1995).

3.3 JUSTIFICATION FOR USING THEORETICAL FRAMEWORK

This theoretical framework best fits this study's area of interest. The social ecological model deals with the maternal health care services along the dimensions and component of the study. It is concerned with why people take actions to screen or control illnesses. The barriers or enabling factors for the utilization of maternal health care services are best explained within the construct of this model.

The social ecological model helped to answer the research question: "What are the perceptions and experiences of the individual and community on the utilisation of maternal health care services in Ethiopia?; What are the reasons for the non-utilisation of maternal health care services in Ethiopia?; What can be done to reduce maternal morbidity and mortality in Ethiopia?; What are the social – demographic factors that affect utilisation of maternal health care services in Ethiopia?; What are the cultural beliefs and practices that affect utilisation of maternal health care services in Ethiopia?; and how do health systems affect utilisation of maternal health care services in Ethiopia?" The issues addressed in the research include perceived quality of care, influencers or motivators of using the maternal health services in previous or subsequent childbirth, and perceptions and experiences of the community regarding the utilization of maternal health care services. Besides, it helped to answer the comprehensive research questions of skilled maternal health services. The model helped the researcher to maintain the focus of the study. It also assisted in organizing the literature review, developing the data collection instrument, presenting and discussing the findings as well as making recommendations.

3.4 CONCLUSION

It is accepted that the conceptual framework would not be able to provide a complete and comprehensive explanation to maternal health related policy and decision-making in Ethiopia (Lamichhane et al., 2017). This limitation of the conceptual framework necessitated the development of further assumptions to guide the research process. These assumptions are presented as research questions: What social factors induce medical proximate determinants of maternal health? What socio-cultural beliefs and stereotypes affect maternal health? How does social support influence maternal health? And what can be done to reduce maternal morbidity and mortality in Ethiopia?

The conceptual framework was implemented in the research in four stages. The first two stages involving data collection and analysis are discussed in chapter five. The third and fourth stages of implementation process form the core of chapter six. These stages involve the presentation and interpretation of the research findings. In summary, theoretical considerations were used to build the conceptual framework developed on specific assumptions. The use of health systems research that is grounded in the scientific process contributed to addressing the challenging questions posed in the research enquiry. The following chapter focuses on the actual process of research design and methods.

CHAPTER FOUR

RESEARCH DESIGN AND METHODS

4.1 INTRODUCTIN

The previous chapter gave the brief conceptual framework review of the study. This chapter describes research design and methods of the study in three phases as they are used by the researcher to answer the research questions mentioned in Chapter one of this thesis. In phase, one, identify the social factors that induced the medical proximate determinants of maternal health. In phase two, explore the cultural beliefs and stereotypes that are associated with maternal healthcare, and in the last phase, phase three, evaluate how social support influence maternal healthcare services in Ethiopia.

4.2 RESEARCH DESIGN

A research design is defined as a blueprint for conducting the study that maximises control over factors that could interfere with the validity of the findings (Bums, N., & Grove, 2005:223). A research design can also be defined as the overall plan for obtaining answers to the questions being studied and for handling some of the difficulties encountered during the research process (Kapiamba, Masango and Mphuthi, 2016). In other words (Maboe, 2009; Hamel *et al.*, 2012), a research design includes the planning of the research procedure as well as the procedure for data collection and analysis. In connection with this Terre Blanche and Durrheim (2006), as cited, a research design is a strategic framework for action that specifies how the research should be executed in a way that answers the research questions. It further explains whether the research is descriptive or experimental in nature as well as specifying the target population to be included in the study (Vaus, 2001:143).

The current study was descriptive in nature. According to Vaus (2001:143), a descriptive research seeks to provoke the ‘why’ question of explanatory research and also seeks to determine why certain phenomena occur whether in society or government. This, therefore, justifies adopting a descriptive research in this study to explore the nature of complexities that contributed to the non-availability of an integrated maternal healthcare service in Ethiopia.

A community based triangulation mixed study design that employs quantitative and qualitative data collection methods by using descriptive correlation were carried out (Schutt and Chambliss, 2013). In triangulation study design either the entire population or a subset of it is selected from the population, and data are collected to help answer research questions of interest. It is called triangulation mixed methods because the information gathered represents what is going on at only one point in time (Hynes, 2015; Green *et al.*, 2016). Thus, in this study, a combination of qualitative and quantitative research (triangulation) methods was used as a process to identify the research population and obtain data on maternal healthcare services.

4.2.1 Quantitative research method

The research design was intended to address a gap in the knowledge because, to date, studies on maternal health have predominately utilized quantitative approaches (Mannava *et al.*, 2015). The difference between qualitative and quantitative methods is that qualitative methods deal with text data rather than numerical data (Schutt and Chambliss, 2013), and these qualitative data can be analyses in their textual form, rather than converting them to numbers, in order to understand the meaning of human action. A qualitative method was the principal means of data collection in this study. Structured and semi-structured interviews, with open-ended questions, were used to explore in depth women's reasons and experiences of maternal healthcare use or not. This was, therefore, an example of exploration of phenomena as they occur in particular circumstances rather than testing predetermined hypotheses (Dicicco-bloom and Crabtree, 2006).

In this study, using a quantitative method for data collection was useful to gain maternal healthcare views on women's maternity service use. Yilmaz (2013) posits that quantitative research emphasizes the measurement and analysis of causal relationships between variables. In quantitative research, measurement takes a central place because it provides the essential connection between empirical observation and mathematical expression of quantitative relationships (Reynolds, Wong and Tucker, 2006).

The quantitative data were collected in order to understand better views on women's maternity service use and to provide the opportunity for triangulation of data from different sources. The use of triangulation helps to establishing trustworthiness of a

qualitative study (Korstjens and Moser, 2017). In this study, triangulations were made in different ways through the methodology used in the research, namely, triangulating the data collection from women and environment triangulation, that is, data were collected from a rural and urban community. In addition, the use of female assistants to interview some women constituted a form of investigator triangulation.

Quantitative research is a type of research that aims to determine the relationship between an independent variable and a dependent or outcome variable in a population (Haber, 2009). In this type of research method, data is expressed numerically and is collected by some means of measurement (Zohrabi, 2013; Peersman, 2014). Also, the researcher expresses the relationship between variables using statistics such as correlations, relative frequencies, or differences between means (Greenland *et al.*, 2016).

4.2.2 Qualitative research method

Qualitative research has been increasingly utilised in health-service research as a methodology due largely to its ability to generate rich descriptions of complex social phenomena (Gale *et al.*, 2013; Reeves *et al.*, 2013). By using this method in this study the researcher was able to explore women's maternity experiences and needs. Qualitative research is a naturalistic approach that seeks to understand phenomena in context-specific settings, that is, 'natural' and 'real world' settings (Gale *et al.*, 2013). This study was able to explore women's experiences and maternity needs on their own words.

According to Yilmaz (2013), qualitative research focuses on the interpretation of phenomena in their natural settings to make sense in terms of the meanings people bring to these settings. It is effective mostly when gathering data that involves the values, behaviours and opinions of a particular population (Peersman, 2014). Sutton & Austin (2015) defined qualitative research as attempting to understand the unique interactions in a particular situation. The understanding of these interactions includes the understanding in depth of the fine characteristics of the situation and the meaning brought by those involved and the activities around them at a given time (Sutton and Austin, 2015). Therefore, this implies that qualitative research models an inductive process, assumes the mutual, simultaneous shaping of factors, maintains

an evolving design in which categories are identified during the research process, and is characteristically 'context bound' (Khan, 2014). This further explains that qualitative research reveals the actual feelings of the population with regard to any phenomenon that may be affecting their lives at any given moment. Thus, this kind of research has an element of self-proclaimed truths by the participants in the research study.

According to Andrew *et al.*, (2014), qualitative research methods have much to offer to those studying healthcare and health services. Jervis & Drake (2014) also argue that qualitative research approaches allow researchers to access lay and professional health beliefs, perceptions and attitudes and to provide adequate description that is a necessary prerequisite of any quantitative work. Furthermore, Austin & Sutton (2014) have reported that health researchers have begun to take up qualitative methods that were long utilized in the social sciences. It is upon this background that a qualitative research method was adopted in this study to determine disparities that exist in the formulation of health promotion strategies, especially maternal healthcare service in Ethiopia.

4.2.3 Combined qualitative and quantitative methods (triangulation)

Methodological triangulation is the use of two or more different kinds of methods in a single line of inquiry (Heesen, Bright and Zucker, 2016). This method of approach to research is distinguished on the basis of the type of data used (textual or numeric; structured or unstructured), the logic employed (inductive or deductive), the type of investigation (exploratory or confirmatory), the method of analysis (interpretive or statistical) (Khanal 2015), the approach to explanation (variance theory or process theory), and for some, on the basis of the presumed underlying paradigm (positivist or interpretive/critical; rationalistic or naturalistic) (Johnson, 2013).

According to Tariq & Woodman(2013), health researchers have been especially interested in the possibility of combining qualitative and quantitative methods (triangulation). The most likely reason for this interest in triangulation is the complexity of the many different factors that influence health (UNAIDS, 2010; Harwell, 2011; Reeves *et al.*, 2013; Tariq and Woodman, 2013). Therefore, given all the factors that affect virtually every aspect of health, it is deemed easy to appreciate

the different strengths that both qualitative and quantitative research methods have to offer. Also, given the nature of this study, it became necessary to appreciate what both methods could offer in trying to answer the research question. As a result, this study used a triangulation of approaches.

4.2.4 Rationale for the integrated (triangulation) approach

According to Suter (2012), McDavid and Huse (2013) and Green *et al.*, (2016), triangulation provides the most persuasive evidence by reducing the level of uncertainty because a proposition can be confirmed by more than one independent measurement process. As a result, a combination of qualitative and quantitative information was therefore most applicable and relevant for data collection and analysis process in this study. Furthermore, a combination of these research methods was essential to explore theoretical considerations and paradigms in the health policy analysis that was adopted in this study (Gale *et al.*, 2013).

The integration of both qualitative and quantitative research methods was also necessitated by the association of healthcare problems with complexities such as social, economic, political and environmental factors (Smith, Mossialos and Papanicolas, 2008; Fielding, 2016). According to Baškarada (2014) and Palinkas et al (2015) the use of qualitative research attempted to explore the diversity within an identified population and involved the conversion of observed data into synthesis, hypotheses and generalisation of the identified phenomena with regard to the factors stated above. Moreover, there is also an increasing awareness that qualitative data that explores theoretical considerations and paradigms have a significant role to play in health-related policy analyses (Scotland, 2012; Esch and Esch, 2013). Furthermore, quantitative research is depicted as the traditional scientific approach to research that has its underpinnings in the philosophical paradigm for human inquiry known as positivism (Scotland, 2012). This further justifies the relevance of this research method as used in this study. Although both qualitative and quantitative research methods have individual strengths, their combination provided a more meaningful data in this study.

4.2.5 Contextual aspect of the design

According to Clark-Foos et al.(2009), context is defined and described as the setting in which the research actions occur, the aim being to understand events within the

context in which they occur. This study was contextual in the sense that it was conducted within the Ethiopian context and the findings were understood within this setting. This setting of the study was chosen for its accessibility to the researcher. As this setting is an urban/rural setting, the research took into account the social, physical, and cultural values of the participants. The context was a naturalistic setting and was thus free from manipulation.

4.3 RESEARCH METHODS

Research methods are the techniques used to structure a study and to gather and analyse information relevant to the research question in a systematic fashion (WHO, 2014). According to Rashed and Janem (2011), Yoshikawa (2012) and Khan(2014), a research methodology may be defined as academia's established framework for the collection and evaluation of existing knowledge for the purpose of arriving at, and validating new knowledge. Also, the importance of research methodology emanates from its definition of the activities of a specified research, its procedural methods, strategies for project measurements and criteria for research success (Coglianese, 2012).

A mixed-methods approach was used in this study, involving a partially mixed sequential equal status design in terms of the classification, and partially mixed design implies that mixing of qualitative and quantitative data were done at interpretation level (i.e. the quantitative data were linked to and explained by qualitative results) (Gupta, Angeli, Schayck, Bosma, *et al.*, 2015), and sequential means that the qualitative data were collected after the quantitative data collection; and equal status denotes that both qualitative and quantitative data were given the same importance at the time of interpretation (Gupta *et al.*, 2017). The quantitative part of the mixed-method study reveal the trends and differences in rates for maternal health outcomes (Gupta, Angeli, Schayck, Bosma, *et al.*, 2015), whereas the qualitative study would provide explanations for these findings which were used to formulate evidence-based recommendations for implementing the program in a more effective way so as to achieve the intended research objectives.

It now follows that this study used interviews, in-depth interviews, document review and self-administered questionnaires as instruments to critically analyse the

Ethiopian maternal healthcare policies and programmes with regard to maternal health. Also, all available health policy documents and materials with the capacity to impact on maternal health, including all documents from the maternal, child and women's health, from national and provincial health directorates were analysed.

4.3.1 Sampling

The sample is the number drawn from a population using the relevant sampling method, depending on whether a quantitative or qualitative data collection method is being used. According to Lammers & Babbie (2005),there are three important components for choosing an appropriate sample for a study. First, the sampling technique should stem logically from the conceptual framework, for example, the Ecological model of health service utilisation and the research questions. In this case, women who had delivered a baby with or without the help of SBAs relatives involved in delivery care and maternity health service providers were selected to explore the main research question (Duysburgh *et al.*, 2013). Secondly, the sample should generate sufficient data on the phenomenon being studied. Thirdly, the sample should reasonably lead to the possibility of making clear inferences or credible explanations from the data.

In other words Guetterman (2015) and Palinkas *et al*. (2015) identified different sampling techniques, such as snowball sampling or purposive sampling, to determine sample size in qualitative research. For the purpose of this thesis, the purposive sampling technique a deliberate non-random method of sampling was used to identify maternal health-related decision makers in Ethiopia (PATH, 2016). This method was selected because of a finite number of decision makers in maternal health development in all of the identified health research areas.

4.3.1.1 Sampling technique

Purposive sampling was used to include participants in the study. Purposive sampling is also referred to as judgemental sampling and involves the conscious selection of participants by the researcher (Palinkas *et al.*, 2015; Tiruneh, Chuang and Chuang, 2017). The reasoning that underlies the purposive selection of a sample in qualitative research is to identify information-rich participants who can supply the information required to answer the research questions. Participants are selected to participate in qualitative research based on their culture, social process,

or phenomenon of interest (Bradshaw, Atkinson and Doody, 2017; Korstjens and Moser, 2017). For this study, maternal healthcare recipientswho were willing to talk about their experiences of being on this study met the criteria and were selected to participate.

4.3.1.2 Sampling criteria

Sampling criteria are a list of characteristics essential inclusion or exclusion membership in the target population (Fellegi, 2010). The sampling criteria were based on the research problem, research purpose, and research design. The sampling criteria used in this study are presented as follows:

4.3.2 Eligibility criteria for the study population

4.3.2.1 Inclusion criteria:

To qualify for inclusion in this study, pregnant women were expected to meet the following criteria.

- All women in their third trimester of pregnancy (≥26 weeks)
- Age between 15 to 49 years of age
- All women within 5 years of post-delivery and those who terminated pregnancy beyond six months preceding the date of interview regardless of outcomes of pregnancy.
- Permanent resident or live more than one year at the study area

4.3.2.2 Exclusion criteria

- Women who were critically ill and those who lived less than one year at the time of the interview were excluded from the study.

4.3.3 Interviews

An interview in research terms is a strategy for obtaining data which allows interpersonal communication with a face to face meeting (Edwards and Holland, 2013). The increasing popularity of the interview as a research method may in part reflect broader social change and technological advances, with increased use and acceptability to support healthcare. As described, different tools were used to collect data. Long-Sutehall, Sque & Addington-Hall (2011) stated that there is no single approach fit for every problem in data collection. Both open and close ended questionnaires were used in this study for data collection; see (Appendices F & G).

4.3.3.1 Semi-structured face-to-face

Interviewing participants is a widely used and valuable method of qualitative data collection (Golafshani, 2003; Bryman, 2004). Khan (2014) stated that there are several strengths in semi-structured interviews. This method is helpful to interact with respondents and it is useful for deep exploration and understanding of women's experiences and perceptions in a natural setting (Sutton and Austin, 2015). The semi-structured interviews provided the opportunity to explore new ways of understanding women's experiences in health seeking behaviour.

Medsker et al. (2016) stated that the flexibility of the technique allows the investigator to probe, to clarify and to create new questions based on what has already been heard. The semi-structured interview also allows preparation of questions ahead of the interview time and gives respondents confidence in the researcher competence. Jamshed, and Shazia (2014) stated that ''the structured interview is the mode of choice when the interviewer knows what he or she does not know and can therefore frame appropriate questions to find it out. However, semi-structured interviews allow the participants the time and capacity to speak about their opinions on a particular subject in their own words and the researcher can focus on particular areas of interest.''

The semi-structured face-to-face interview is more like a 'guided conversation' where the researcher can establish rapport with participants, ordering of the questions is less important and the interviewer is free to probe interesting areas as they arise and can follow the respondents' interests or concerns (Livingstone and Haddon, 2013). The researcher can explore the main themes (e.g. individual characteristics, gender and culture, costs, choice of and access to services) using open-ended questions to reach an in-depth understanding of the issue under exploration, from the respondents own words (Livingstone and Haddon, 2013). The interviewer can follow an idea or a comment made by a respondent in detail. It also allows the interviewer some control over the line of questioning during the interview (Bell, Fahmy and Gordon, 2016), while respondents are still free to express their ideas.

During the interview simple words were used regardless of the women's status so that the questions were easily understood. All interviews were recorded using a

digital recorder. Semi-structured interviews generally last a considerable length of time (usually an hour or more), depending on the particular topic (Smith *et al.*, 2014). However, the length of interviews partly depends on the respondents' socio-cultural and individual background (Jamshed, 2014). Some participants were talkative and had more knowledge about the issues than other respondents so the length of the interviews varied (Sterlingova and Lundén, 2018). In this study some of the interviews lasted more than an hour while others were between 45 to 55 minutes long and all interviews were completed in one sitting.

4.3.3.2 Self-administered questionnaires

Quantitative, qualitative and mixed methods studies (including published and unpublished reports) were reviewed to identify factors affecting maternity service use (Gravel, Légaré and Graham, 2006). Key issues such as individual characteristics, attitudes, quality and nature of maternal health, and the infrastructure of the facility were identified.

It was estimated from the pilot survey that the questionnaires would take 50 minutes to complete (Appendix F &G). In self-administered questionnaires, the respondents answered the questions by themselves, completing the forms at their own convenience. Self-administered questionnaires can be circulated to respondents using data collectors and the interviewers can administer the questionnaire a few days before the focus group takes place (Fellegi, 2010:61).

4.3.3.3 In-depth interviews

According to Bolderston and Amanda (2012), in-depth or unstructured interviews are excellent tools to use because they use open-ended questions, discovery-oriented method, which allows the interviewer to deeply explore the respondent's feelings and perspectives on a subject. This results in rich background information that can shape further questions relevant to the topic. The key characteristics of the interviews in this study included open-ended questions, semi-structured questions, seeking understanding and interpretation of what was being said, and recording of responses. A prepared protocol of questions was developed before the interview. These questions included maternal health development, current strategies and interventions and future directions in maternal health. A copy of the interview

protocol was presented to the participants in advance. This allowed the participants to be familiar with the questions being asked.

A short discussion was held before the interview could commence. This was to set the tone and atmosphere of the interview (Hoffman, 2005). The expectations and parameters of the interview and the goals and objectives were discussed with the participants. Permission was obtained to video record the interview and issues of confidentiality were iterated. The video-recorded version ensured that there were verbatim records of the interview. Apart from the video recording, some process notes on the interview were taken down manually in order to have a better understanding of the interaction during the interview. The duration of the interview was one hour. The interview was conducted in offices at Health Bureau or at places of the participants' convenience.

4.3.3.4 Focus group discussions (FGDs)

In addition to individual interviews, FGDs were also held with participants (Nalwadda *et al.*, 2014). The reasons for using focus groups are based on the assumption that group dynamics can assist people to express and clarify their views in ways that are less likely to occur in a one-on-one interview and the group may give a sense of safety in numbers to those who are wary of researchers or those who are anxious (AIR, 2012:127). The focus group is also effective in that researchers can obtain the viewpoints of many individuals in a short time, and members react to what is being said by others, leading to a richer and deeper expression of opinion (De Vos, A.S.; Strydom, H.; Fouché, C.B. and Delport, 2005:300). The interaction of participants may stimulate a richer response, or new and valuable thoughts, and group pressure were valuable in challenging the thinking of participants and illuminating conflicting opinions (Morris *et al.*, 1999). Concerning the issue of the sample size for focus groups, the size of each focus group is usually between 6 and 12 persons, with the optimum size being 7 to 9 persons is preferable when the participants have a great deal to share about the topic or have intense or lengthy experiences related to the topic of discussion (Fellegi, 2010:61). A group size allows everyone to participate, while still eliciting a range of responses. In making decisions about size, it is useful to think concretely about how much time each participant got to talk in the group.

According to Fellegi (2010:61), deciding on the right number of participants means striking a balance between having enough people to generate a discussion, but not having so many people that some feel crowded out. Concerning what is an adequate number for focus groups, cited in Jamshed (2014:73), there is no hard-and-fast rule on the number of focus groups that should be conducted. Information-rich participants were purposely selected by the researcher and the research assistant, using the same strategy as for individual interviews. A pilot study is a 'dress rehearsal'; it duplicates the final survey design on a small scale from beginning to end, including data processing and analysis (Fellegi, 2010:62). Although pilot testing is a cardinal rule for research, it presents special problems when it comes to focus groups (De Vos, A.S.; Strydom, H.; Fouché, C.B. and Delport, 2005:309). It is for this reason that the researcher did not conduct a pilot for the FGDs, as De Vos et al. (2005:306) state that the true pilot test is the first focus group. The same room that was used for the individual interviews was used for the FGDs.

The purpose of the research was explained to the group. A biographical profile of the participants was first created (Gabriella & Russo, 2015:515). Ground rules were set to ensure that the discussions ran smoothly. Ground rules were laid down relating to issues of confidentiality and permission to opt out of the group. It was agreed that every member would contribute, that every member would be listened to, and that all ideas would be analysed and every contribution considered vital. The seating arrangement was circular, so that every member could see each other and the researcher was able to communicate with every member of the group. Due to the small size of the room, the researcher was not able to move around, but was part of the circle. Since the researcher is a lecturer and is familiar with group discussions, it was easier to manage the group (Kovach, 2010:43). An independent person (the research assistant) took detailed notes of what every member said, so that data collection should not interfere with the coordination of the group. The research assistant was properly oriented as to the process of focus group data collection. She focused on observing and taking notes, while the researcher concentrated on asking questions, facilitating the group interactions, following up on ideas, and making smooth transitions from one issue to another.

In order to make sure that all the relevant domains of socio-cultural determinants and missed opportunity were deliberated on, the same comprehensive interview guide that was used for the individual interviews was used for the FGDs. One question was asked at a time, and every member was given a chance to respond to it, and the researcher summarised after every question, to ensure what was captured by the researcher and the research assistant was what the participants had actually said. Participants were permitted to hear one another's responses and to make additional comments beyond their own original responses as they heard what the other participants said. The researcher made sure that every member contributed and that no one individual dominated the discussions. The FGDs conducted were recorded using a video camera and/or sometimes a cellular phone with the permission of the participants (Vemula et al., 2013:3). One FGD was conducted per day. FGDs lasted for about two hours for the first group, and for one and a half hours for the second group (Rao, Vanguri & Premchander, 2011:2). The FGDs produced a range of insightful responses concerning the experience of being on maternal health in Ethiopia. There was no further new information emerged and data saturation was deemed to have been achieved (Wong et al., 2014:3).The participants were assigned numbers, from participant number 1 to participant Number 8. The participants' information was kept on a secure computer flash drive and personal computer. The identity of the participants was not revealed to anyone. Research information was reported in an aggregate report, using only the numbers that identified the participants.

4.3.4 Population

Population of a research is defined as the people who appeal to the interest of the researchers in generalizing the outcomes of the research or a population may be also defined as the total number of units (individuals, organizations, events, objects, or items) from which samples are selected for measurement (Mohamed *et al*., 2016:895). To answer the research questions, all women in their third trimester of pregnancy (≥26 weeks), age between 15 to 49 years of age, all women within 5 years of post-delivery constituted the population of this study and permanent resident or live more than one year at the study area (Curtis, Weinrib & Katz, 2012:3). Those women who terminated pregnancy beyond six months preceding the date of interview regardless of outcomes of pregnancy, who were permanent

residents of the study area, and husbands and parents-in-law were included in the study. Nevertheless, women who were critically ill and those who lived less than one year at the time of the interview were excluded from the study.

Table 4.1: Sample size for reproductive age women of the study area

East Hararghe	**Total Popn 2016**	**Target Popn (22%)**	**Calculated Total Sample**	**Sampling Proportion (%)**	**Proportion of Sample Size**
Metta	**226,388**	**49,805.28**	**422**	**33**	**139**
Haramaya	**291,498**	**64,129.56**	**422**	**28**	**118**
Grawa	**313,473**	**68,963.95**	**422**	**39**	**165**
Total				**100**	**422**

4.3.4.1 Study population for quantitative data

For the face-to-face interview, the study population consisted of 422 participant women age between 15 to 49 years (Mezmur, Semahegn & Tegegne, 2017:3).

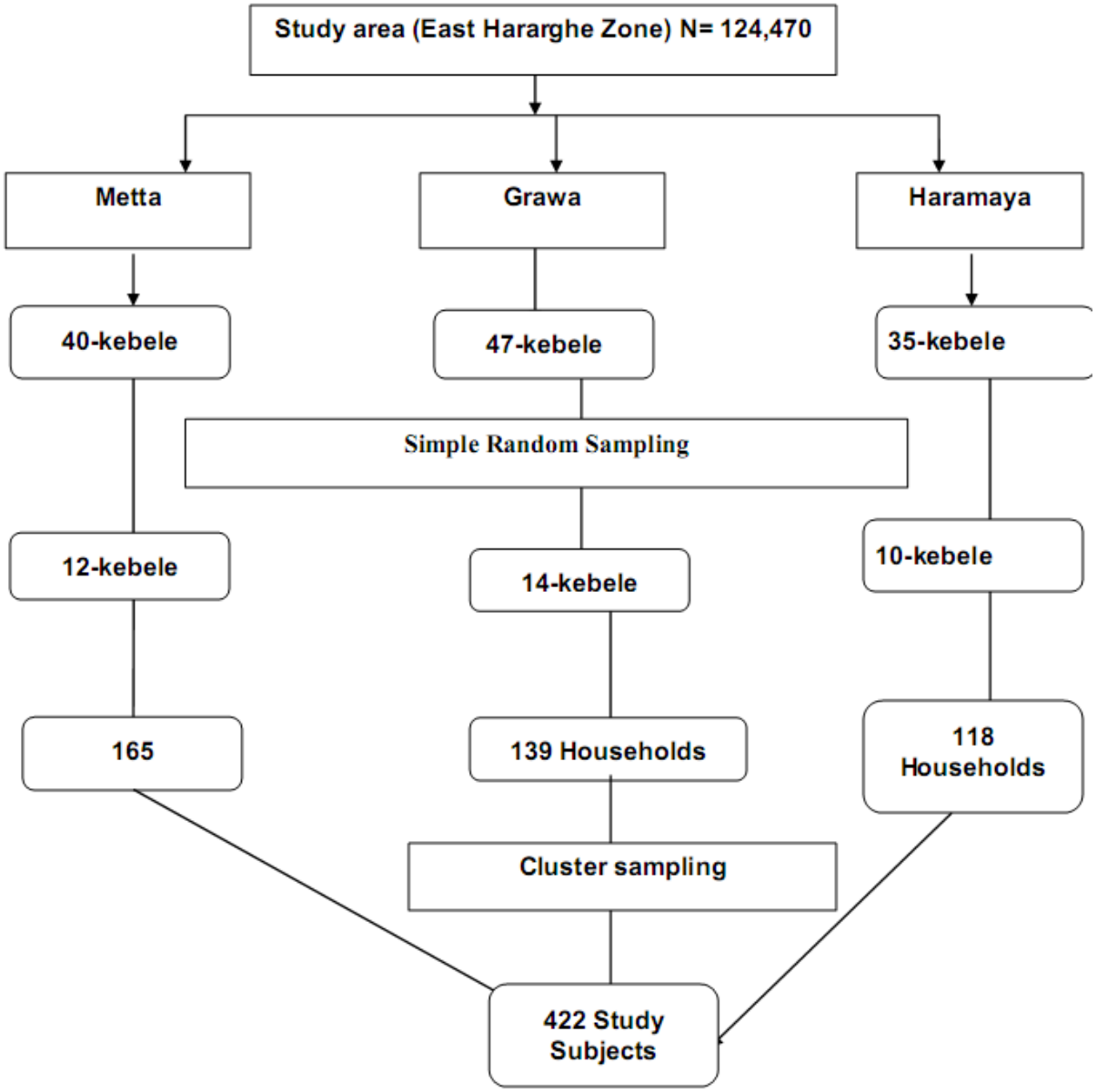

Figure 4.1: Schematic sampling procedure for Quantitative data

4.3.4.2 Study population for qualitative data

The study population consisted of 24 focus group discussants and 152 respondents homogeneous group (i.e., 24-community health workers, 48-reproductive aged women, 24-husbands, 24-religious leaders and 24-community representatives). Eight relatives who were involved in decisions about the birthing process, i.e. five

mothers-in-law, two sisters and a father-in-law, were also interviewed (Baral *et al*., 2012:621).

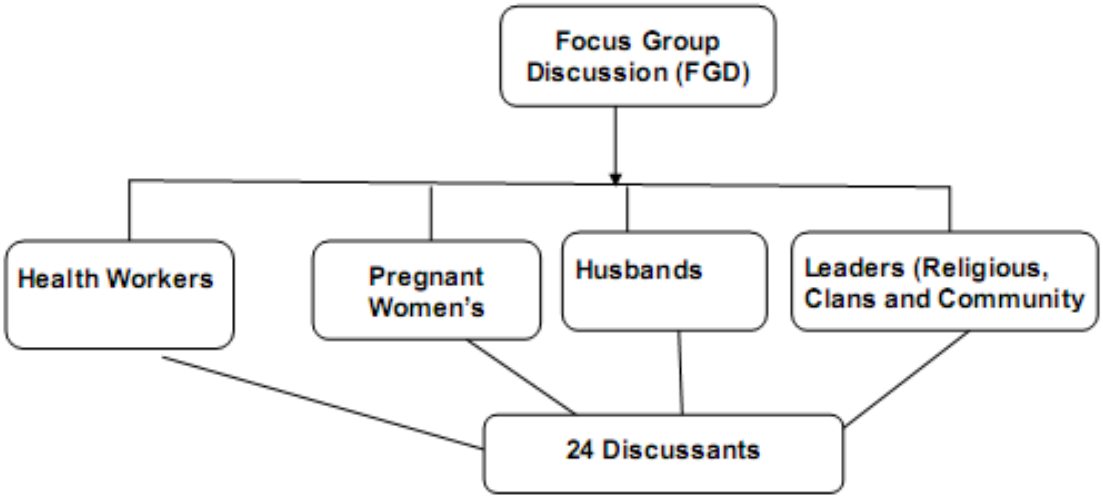

Figure 4.2: Schematic presentation of sampling procedure for qualitative data

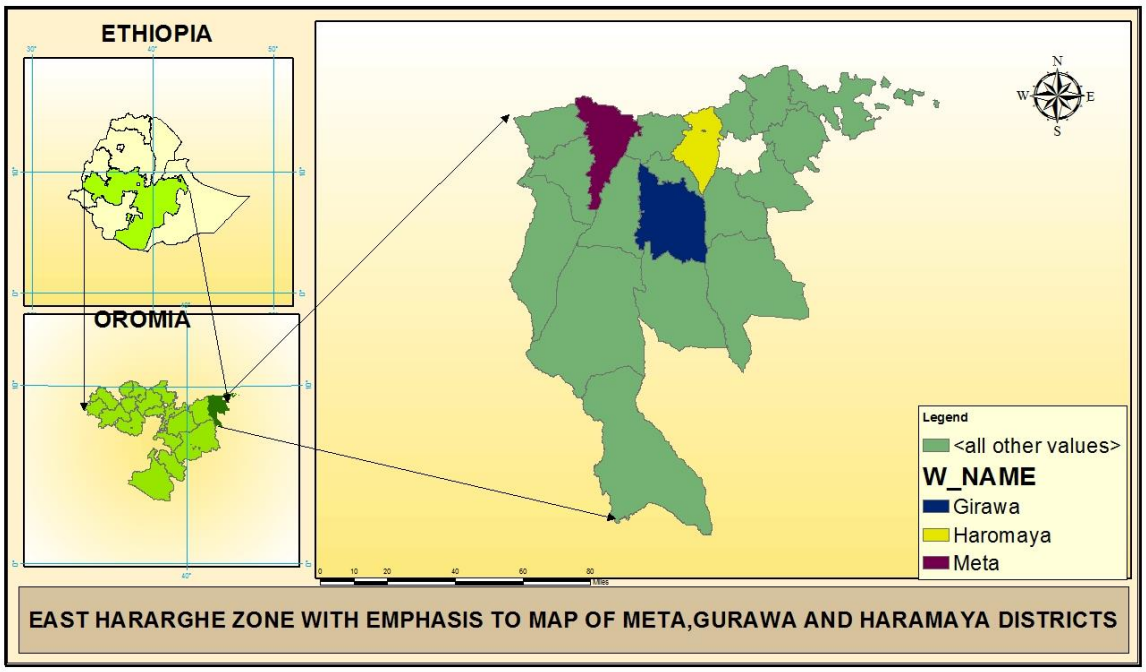

Figure 4.3: Map of study area

4.3.5 Sampling

The study was conducted in selected districts of East Hararghe Zone of Oromia National Regional State, Ethiopia. The data required for the study were generated from the three districts selected purposively as they represent the areas with major health intervention (Belina *et al.*, 2018: 2). In this study a three-stage sampling strategy was followed. In the first stage, 30 percent of the total Kebeles in each district were included in the study (Ergano *et al.*, 2015). As the number of Kebeles varies in the three districts, proportional sampling to give equal weights was used (Ergano *et al.*, 2015). Thus, 39 percent Kebeles from Grawa, 33 percent from Metta and a 28 percent from Haramaya were sampled. In drawing the sample Kebeles and households (HHs), 10 Kebeles and 118 HHs from Haramaya were sampled based on the total population size. Villages were randomly selected to choose the respondents (Belina 2018:3).

The survey data regarding the socio-cultural determinants and missed opportunities affecting maternal healthcare was collected from the population of 124,470 women aged 15-49. The study analysed the responses of 422 women aged 15-49, who were at least pregnant at third trimester or had one child under age five at the time of the survey (Yawson *et al*., 2014:2). Since all the outcome indicators focus mainly on women, women respondents for individual and household level information were interviewed. In total 422 sample females in the reproductive age group (15-49 years) were interviewed using structured questionnaire (Yawson *et al*., 2014:2). Data was collected on the indicators of the socio-cultural determinants and missed opportunities of maternal healthcare services (Sharma *et al.*, 2016: 2).

4.3.6 Ethical issue related to sampling

Ethics as a discipline is the study and analysis of values and standards related to duty, responsibility, and right and wrong behaviour (D and Biobele, 2015:32). According to Esearch (2016: 57), ethical issues are present in any kind of research especially where human subjects are involved. Informed verbal consent was secured for each study subjects and respondents; they also signed the consent. Each respondents was informed about the objective of the study and assurance of confidentiality (Lakew, Tachbele & Gelibo, 2015:2).

To ensure the right of participants involved and protect them from any possible harm, the researcher complied with and upheld the following Belmont ethical principles (Vanclay *et al.*, 2013:245).

Respect for person- Respect for persons incorporates at least two ethical convictions: first those individuals should be treated as autonomous agents, and second, that persons with diminished authority are entitled to protection.

Beneficence:-Persons are treated in an ethical manner not only by respecting their decisions and protecting them from the harm, but also by making efforts to secure their well-being. Such treatment falls under the principle of beneficence.

Justice: -Refers to who ought to receive the benefits of research and share its burdens. For example, the selection of research subjects needs to be scrutinized in order to determine whether some classes are being systematically selected simply because of their easy availability rather than for reasons directly related to the problem being studied.

Non-malfeasance:- The researcher is responsible to protect the participants from harm. The researchers were ensuring the protection of the study participants from physical, psychological, financial and social risks.

Reproductive and sexual health related issues are regarded as private matters which can be embarrassing or even taboo, so women do not like to talk with an unknown person, particularly with a male person, but there was no such problem as the female interviewer and the researcher worked together during the fieldwork. As mentioned, the female researcher was provided with training before any interviews took place.

The research was described to the women and verbal consent was obtained from them by the female interviewer before interviews got started to ensure that participants were informed and were willing to take part in the research (Singer, Blair and Spaeth, 2004:2). The women were told that the information they provided would be kept secure and that they could withdraw from the interview at any time if they wished (Mselle and Kohi, 2016:2).

Participants were assured that the information they provided would not be used for any other purposes than this research study (Tariq and Woodman, 2013: 2).

Moreover, they were informed that personal information would not be disclosed to others. During the interviews the beliefs (for example, their ideas and beliefs on traditional methods), values, attitudes and individual autonomy of the respondents were fully respected (Fang *et al.*, 2016). As the researcher was aware of offering direct benefit to respondents may influence their perception and responses, no direct incentives were given to respondents to discourage them from participation on the basis of an incentive they would get.

Permission was also sought verbally to record the interviews with mothers-in-law, husbands and a father-in-law. In some cases, women hesitated to be interviewed if their parents-in-law or husbands were at home because of gender norms and young women's low status in the family hierarchy. In that case, consent was taken verbally from a senior member of the family (parents-in-law or husband) before proceeding with an interview, taking into account the cultural norms and sensitivity regarding the role of a head of the household (Lars and Iversen, 2017: 28). Consent was then obtained from women who were interviewed in a separate room to ensure confidentiality (Killawi *et al.*, 2014: 4). Also, to maintain women's privacy, if someone came into the interview place, interviews were stopped in the interests of confidentiality and anonymity but no such incidence happened (Islam, Jahan and Hossain, 2018: 3).

Participants were informed that the recorded interviews, transcriptions and completed questionnaires would be securely held and then destroyed five years after completion of the study. The quantitative data were collected from reproductive age women by self-administered questionnaires. The 'informed consent' aspect was clearly positioned at the top of each questionnaire stating the purpose of the study and that all information given would be kept confidential and anonymous (Appendix B & C).

To obtain informed consent when participants are 18 years and older, they were given all the relevant information relating to the study, which includes the title, purpose of the study, benefits and potential risks and how to collect the data (Hart, [Sa]). Participants were having the opportunity to ask questions freely without any fear. The researcher emphasized that participation is voluntary and that the participants could withdraw from the research at any given time without any

repercussions. The contact details of the researcher, supervisory teams and relevant higher degree committees were provided to the participants on the consent forms. The same contact details were given to the health workers involved in maternal healthcare and who were working on the health facilities during the study period. Permission was also obtained by explaining the fact that the data collector was not there to evaluate the respondent and that the data collector was not an expert to be consulted during the session (Bougangue and Ling, 2017: 3).(Appendix B).

This thesis was reviewed by the Department of Health Studies of University of South Africa Higher Degree Committee (NHERC) REC-012714-039, HSHDC/701/2017. The survey was commenced after a written consent was obtained from Oromia Regional Health Bureau and East Hararghe Zone health office.

4.3.7 SAMPLE

The study subjects were a sample of women in the childbearing age, who had given birth in the past five years prior to the survey and who were residents of the Woreda (Birmeta, Dibaba and Woldeyohannes, 2013). A sample size of 422 participants was determined using the formula for single population proportion based on the assumptions that in the absence of the previous prevalence data on the population under study (Birmeta, Dibaba and Woldeyohannes, 2013), and to obtain the maximum sample size, *p* was assumed to be 0.5. Moreover, a margin of error of 5%, a confidence interval of 95% assumed (Za/2=1.96) (Nikose *et al.*, 2015: 3), Population (N=124,470) and 10% contingency for non-response were used to calculate a sample size of 422 women. Those by the formula of known single population ratio:

$$\mathbf{n=}\ \frac{\mathbf{N Z^2_{\frac{\alpha}{2}} p(1-p)}}{\mathbf{e2(N-1)+Z^2_{\frac{\alpha}{2}} p(1-p)}} = \frac{\mathbf{124{,}470*1.96*1.96*0.5(1-0.5)}}{\mathbf{(0.05*0.05)(124{,}470-1)+1.96*1.96*0.5(1-0.5)}}$$

$$\frac{\mathbf{124,470 * 1.96 * 1.96 * 0.5 * 0.5}}{\mathbf{(0.05 * 0.05)(124,469) + 1.96 * 1.96 * 0.5 * 0.5}}$$

$\frac{119{,}540.988}{311.1725+0.9604} = \frac{119{,}540.988}{312.1329}$ **= <u>383</u>** ; n of 10% contingency 383*10% = **<u>38.3</u>**

Total sample (n) = 383+38.3 = 421.3 = 422

n = <u>422</u>

4.3.8 Data collection

There are many different methods for collecting data. The possible (existing and new) data sources are primary data and secondary data collections:- retrieving existing documents and data, collecting data from individuals or groups, observation and physical measurement (Peersman, 2014:3–4).

4.3.8.1 Data collection approach and method

Triangulation method of data collection was adopted. The main instrument used for data collection was interview at an individual, a household and a village level (Korstjens and Moser, 2017:122). Key informant interviews, the closed ended structured questionnaire, instruments, behavioural checklists and records were used to collect quantitative information and the open-ended questionnaire, in-depth interviews, audio-visual materials, focus group discussions and field observation were used to collect qualitative information (Pinfold, 1999:631). In-depth interviews were conducted with the representatives of district health office, health centre and women affairs (Lee *et al.*, 2016:2). Focus group discussions were held with women of reproductive age, community and religious leaders, husband and mother-in low using interview guidelines prepared in advance (Ergano *et al.*, 2015:113).

4.3.8.2 Development and testing of the data collection instrument

The questionnaires were designed in such a manner that it contained both open and close-ended questions on the socio-demographic characteristics, antenatal care, delivery, postnatal care, socio-economic factors, health system factors and cultural factors that can help to collect enough information on the subject matter (WHO, 2008a: 2). Unstructured questionnaire was used for the in-depth interview among the key informants. In case of more than one delivery, questions focused on the last delivery. The target respondent women were asked for consent to be interviewed with assurance of non-retribution for not participating (Ndege *et al.*, 2016: 2). Those unwilling to participate were allowed to be excluded from interview. Data were collected on daily basis from morning to evening including weekends for the period of two-three weeks.

The English version of interview questions was translated into Afan Oromo and Amharic to obtain data from the study participants and to ensure their understanding of the contents properly. The researcher counterchecked the data for accuracy and

completeness of the filled questionnaire and all completed questionnaires were given identification number after completing the work (Bekele and Yimam, 2017: 111).

The Afan Oromo and Amharic versions of the survey questionnaire were pre-tested in the field to know if it they were clearly understood by the respondents. As deemed necessary, questions having semantic problems were improved to increase their clarity and accuracy.

4.3.8.3 Characteristics of the data collection instrument

The characteristics that define data quality use for this thesis were: accuracy and precision, legitimacy and validity, reliability and consistency, timeliness and relevance, completeness and comprehensiveness, availability and accessibility and granularity and uniqueness (Jenks, 2018:129).

Accuracy and Precision: Refers to the exactness of the data. It cannot have any erroneous elements and must convey the correct message without being misleading. This accuracy and precision have a component that relates to its intended use. Without understanding how the data were consumed, ensuring accuracy and precision could be off-target or more costly than necessary. For example, accuracy in healthcare might be more important than in another industry (which is to say, inaccurate data in healthcare could have more serious consequences) and, therefore, justifiably worth higher levels of investment.

Legitimacy and Validity: These are requirements governing data set and the boundaries of this characteristic. For example, on surveys, items such as gender, ethnicity, and nationality are typically limited to a set of options and open answers are not permitted. Any answers other than these would not be considered valid or legitimate based on the survey's requirement. This is the case for most data and must be carefully considered when determining its quality.

Reliability and Consistency: Many systems in today's environments use and/or collect the same source data. Regardless of what source collected the data or where it resides, it cannot contradict a value residing in a different source or collected by a different system. There must be a stable and steady mechanism that collects and stores the data without contradiction or unwarranted variance.

Timeliness and Relevance: There must be a valid reason to collect the data to justify the effort required, which also means it has to be collected at the right moment in time. Data collected too soon or too late could misrepresent a situation and drive inaccurate decisions.

Completeness and Comprehensiveness: Incomplete data is as dangerous as inaccurate data. Gaps in data collection lead to a partial view of the overall picture to be displayed. Without a complete picture of how operations are running, uninformed actions were occurring. It's important to understand the complete set of requirements that constitute a comprehensive set of data to determine whether or not the requirements are being fulfilled.

Availability and Accessibility: This characteristic can be tricky at times due to legal and regulatory constraints. Regardless of the challenge, though, individuals need the right level of access to the data in order to perform their jobs. This presumes that the data exists and is available for access to be granted.

Granularity and Uniqueness: The level of detail at which data is collected is important, because confusion and inaccurate decisions can otherwise occur. Aggregated, summarized and manipulated collections of data could offer a different meaning than the data implied at a lower level. An appropriate level of granularity must be defined to provide sufficient uniqueness and distinctive properties to become visible.

4.3.8.4 Data collection process

Data collection was done from September up to December 2017, after seeking approval from the NHERC for ethical consideration and data collection. Data was collected by the principal investigator (PI). PI approached the participants in the survey. The study participants were informed about the nature of the study, purpose of the study, and their rights as research participants. In addition, the consent form was explained clearly to participants. Signature of the participant was taken after their willingness to participate in the study. A copy of the consent was provided to the research participants on their demand. After they had signed the consent form, the questionnaire was administered and responses from the study participants were

filled by the PI. Questionnaire will be filled by the investigator in the language that the participant knows and speak Afan-Oromo and Amharic.

4.3.8.4.1 Quantitative data collection process

A household survey using a triangulation design involving pregnant women in the third trimester was conducted. Based on the study population consisted of 422 participant women age between 15 to 49 years (Mezmur, Semahegn & Tegegne, 2017:3)**.** We assumed that approximately 182,899 (22%) pregnant women in their third trimester of pregnancy would be residing in the study area. The study reached 422 (100%) of the expected pregnant women in the survey.

The household survey consisted of a face-to-face interview. During the conduct of the household survey interview, only pregnant women in their 3rd trimester who voluntarily consented were invited to participate in the study. In the situation that a pregnant woman was not at home during the time the household survey was conducted, that household was revisited up to three times to see if the woman was interested in participating. Village leaders, community health workers, and traditional birth attendants assisted in the identification of households with pregnant women. Trained research assistants who were registered nurses and mid-wife conducted the household survey. The principal investigator supervised the conduct of the survey. For the household survey, a structured pretested questionnaire was utilized to capture baseline information including socio-demographic characteristics, gestational age, educational status, occupation, ethnicity, parity, gravidity, obstetric history, FGM history, polygamy, autonomy, violence, access to health facility, CBHI, family size, immunization status, and intermittent preventive treatment status. The questionnaire also captured information on birth preparedness, an anticipated place for delivery, social support after delivery, money saving for any emergency during pregnancy, and the purchase baby's items, which are included as part of the health education provided through health care services service. For women who had attended health care services, responses to the household survey questions were crosschecked with their antenatal and postnatal cards, which are provided to pregnant women who attend health care service. During the household survey, the pregnant women's blood pressure was checked, weight and height were measured, an identification

card for follow-up purposes was provided, and counseling regarding the utilization of health care services was provided. The household surveys were conducted in the homes of the pregnant women unless otherwise specified by the participant. In those rare cases (only four women), the interview was scheduled at a convenient location identified by the participant, usually at their farm or at a friend's house.

4.3.8.4.2 Qualitative data collection process

A study was conducted to explore in depth barriers to utilization of maternal health care services care services among women in the study area. Women and community health workers from three Woredas in sixteen districts namely Grawa (Lafto, Grawa, Oromitu and Dogu), Haramaya (Bate, Finkile, Karo-dada and Adelle) and Metta (Chalenko, Kulubbi, Duse and Bikiye) were invited to participate in focus group discussions. Using the results from the analyses of the household survey data, study Woredas were selected based on the criterion of having a significant number of women who initiated maternal health care service late or who never attended maternal health care services. Community health workers(CHWs) were also invited to participate because of the nature of their work in bridging the community with the health care system. Hence, participants were purposively selected for the focus group discussions (FGDs). FDGs provided the women with a safe environment in which they could present their views and opinions and provided the participants with the opportunity to see that the challenges and barriers that they experienced were similar those of other women. The FGDs also promoted open discussion and sometimes disagreement, and allowed us to observe the group dynamics. Finally, FGDs allowed us to observe whether there was consensus of group members on the challenges faced by women who visited maternal health care services and the barriers to utilization of maternal health services among pregnant women.

We conducted twenty four FGDs with women who had recently delivered babies, many of whom had not utilized maternal health service. Thirty-five women from the selected Woredas participated in the FGDs with an average of five to six women in each group. Six focus groups were also conducted with CHWs, one in each of the six wards. On average, five to six CHWs, both male and female participated from each ward making 32 CHWs. A semi-structured interview guide was used to facilitate discussion among participants. The key issues explored were: 1) What

do you know about maternal services available to you during pregnancy or to pregnant women? 2) What has been your experience with ANC services in your community? and 3) Why do some pregnant women not utilize the ANC services available in their communities or are late in utilizing these services?

The research team conducted the FDGs in the Afan Oromo and Amharic. Members of the research team who were fluent in Afan Oromo assisted with translation during discussions. None of the research team members involved in conducting the FGDs provided directed medical care to the participants through the local community health centers. Voice recordings were transcribed, translated into English, and back translated into Afan Oromo to ensure content consistency. Field notes were taken by data collector and some of the FGDs were supervised by supervisor. For the purposes of confidentiality, privacy, and friendly environment, FGDs typically occurred at the village leaders' offices or at primary schools. However, in some cases, (two focus groups), they took place at the local health center. Each FGD took approximately one hour and thirty minutes.

4.3.8.4.3 Pilot Testing of the Questionnaire

Pilot testing of questionnaire was performed to test its functional and face validity. Pilot sample is independent to the final sample (i.e. 20% of the calculated sample size of 85). It helped to determine the problems in the administration and interpretation of the questionnaire, and to ascertain the clarity, appropriateness, and the understandability of the Afan-Oromo and Amharic questionnaire separately.

Pilot testing of the instrument also facilitated in determining the appropriate length of time (50-60) that was required by the participants to complete the questionnaire, each question was reviewed, and explanation was added to few questions for better understanding and to get appropriate responses from the participants.

4.3.8.4.4 Pilot study for interviews

In this study, before the actual interviews, pilot interviews were conducted with three eligible women from the study village by me and the female researcher. The pilot of the interviews helped me to better understand the interview procedure, ways of asking ice breaker questions, specific wording and sitting arrangements and building rapport with the respondents. Moreover, a pilot study proved useful in accessing

study participants and for identifying methodological issues. These included the place of interviews, time taken to complete them, and use of the recording device (Yin, 2012:18). Furthermore, the pilot study clarified the appropriateness of particular questions and any aspects which posed particularly sensitive or ethical issues.

4.3.8.4.4.1 Pilot study for the survey

The pilot studies helped to: assess the adequacy of the research instruments, the feasibility of the study, and issues related to the appropriateness and recruitment of the samples (Sharma *et al.*, 2016:3). They also contributed to planning for the later stages. The pilot studies helped the researcher to identify a range of issues. These included times taken for interviews or completion of questionnaires; and resources needed. However, fortunately, there were no technical problems during this stage.

4.3.8.4.4.2 Field procedure

The field procedure was started at the same time in both sites to conduct the fieldwork in East Hararghe over a four-week period in March 2018. The field process started with the recruitment of 16 female interviewers and having a meeting with the three Woreda health office heads.

4.3.8.4.4.3 Survey procedure

The survey procedure started with meetings with the Woreda health office, arranged with the help of the personal assistant of the head of each facility. Prior appointments were made for both meetings as suggested by the personnel assistant. The help of the Woreda health office head made it easier for the researcher to collect qualitative and quantitative data (CSA, 2014: 4). The researcher agreed the process to deliver the questionnaires to the maternal healthcare services (Kruk, Paczkowski, Tegegn, Tessema, Hadley, Asefa, 2010: 986). Once the survey procedure had been established, training was offered to the female interviewers in preparation of mixed methods data collection.

4.3.8.4.4.4 Interview procedure

In order to recruit female interviewers, initial contact was made with a Woreda health office head of the study area. The head recommended women and made arrangements for the researcher to contact them. Then, the purpose of the study was discussed with the interviewers (McMahon *et al*., 2017:3). The female researcher, as a community health volunteer, had to be from the local area and be familiar with the culture, location and people. The female interviewers were provided

with a three-day training to familiarise them with the research questions, the interview techniques and issues associated with this investigation.

The researcher and the female interviewers generally worked together in the field. Most of the women could not be interviewed on the same day but in any case, it would have been ethically inappropriate to recruit women for interview on the same day. The researcher, therefore, interviewed women on another day at home or at another location, giving them enough time in between to consider their involvement. Having interviewed women for the pilot study, the researcher listened carefully to the interviews and reflected on them. The translated data were discussed carefully and any inconsistencies were resolved. In addition, the researcher's own experience at the pilot stage prompted some revision and development of the interview schedule and interviewing techniques.

4.3.8.5 Data storage and management

The collected data in the form of hard copies of questionnaires were kept securely by the researcher in a locked cupboard (Wong *et al.*, 2014: 3). The recorded interviews were stored electronically in a personal computer and were password protected. The data collected were being used for PhD research and were not being used for any other purposes. The completed survey questionnaires and interviews would be destroyed five years after the completion of this study. It can be noted that sometimes people from the local area asked to listen to the recorded interviews of other women, but their requests were declined for reasons of confidentiality.

4.3.8.6 Ethical considerations related to data collection

Research ethics committees are essential to protect individual patients' and clients', as well as, the public's health (Van *et al.*, 2014: 526). Ethical considerations are important in research and include ethical conduct towards participants' information, as well as, honest reporting of the results. The research was approved by the UNISA Research Ethics Committee and the Ethiopian Scientific and Ethics Committee. According to Smajdor, Sydes, Gelling, and Wilkinson (2009), when applying ethical principles to research, it is helpful to bear the following three considerations in mind. These are the participants, the institution, and the integrity of the researcher. The researcher had discussed how the above were ensured (Chan, Teram and Shaw, 2015: 264).

4.3.8.6.1 The participants

The research participant is always the researcher's first concern (Van *et al.*, 2014:526). Adhering to strict ethical guidelines is even more important in this research, since the participants are highly vulnerable.

4.3.8.6.1.1 Informed consent

According to Ntshakala (2012:63), informed consent means that the person involved should have legal capacity to give consent/agreement or should be situated as to be able to exercise free power of choice without the intervention of any element of force, fraud, deceit, duress, overreaching or other ulterior form of constraint or coercion, and should have sufficient knowledge and comprehension of the elements of the subject matter involved to enable them to make understanding and enlightened decisions (Margaret. Harrell; Melissa. Bradley, 2009:132). Based on the above, it can be safely stated that the principle of free and informed consent is a core value in health. It is not just about permission giving, it is rather also about decision-making process which is sensitive to context and consists of four elements, namely (1) disclosure, (2) comprehension, (3) competency, and (4) voluntarism (Ntshakala, 2012:63). For participants to give consent, they received an explanation of the following: the research, the procedures that would be followed, and the aim of each procedure, the physical risks or discomfort, or any invasion of the participant's privacy, or any threat to dignity; the methods that would be used to ensure anonymity and confidentiality; the tasks expected of them so that they could make an informed choice to participate voluntarily in the research; the advantages of the research to the participants, or to society; the type of data that would be collected; how participants would be selected, and how many would be participating; the condition that participation was strictly voluntary, and that failure to volunteer would not result in any penalty or loss of benefits; and who to contact in case of further questions, comments, or complaints.

The above was explained in a full, non-technical, clear terms that was "at the intellectual level of the client" (Van *et al.*, 2014:526). The principle of veracity was upheld, in that the whole truth, and nothing but the truth, about the research was told (Van et al., 2014: 527). Coercion, threats, and inducement were avoided, since they limit the voluntary or autonomous choices of participants. Consent was solicited on an on-going basis.

4.3.8.6.1.2 Autonomy

Autonomy means the right to self-determination. Individuals have the right to conduct themselves as autonomous agents, without external control, coercion, or exploitation, especially when they are asked to participate in research (Finaud, 2009:17). For this study, autonomy was ensure by informing participants that they had the right to the following: to withdraw from the study at any point in time and to refuse to provide any information (Vanckavi *et al.*, 2017:4).

4.3.8.6.1.3 Confidentiality and anonymity

According to Irb (2014:1), confidentiality means "the research participant responds private information shared by a subject that must not be shared with others without authorisation of the subject". Confidentiality of participants information is essential to maintaining a bond of trust between the participants and the researcher and protecting the human rights of the participants (Bacp, 2002:7).

An important point to note is that maintaining confidentiality is often more difficult in a qualitative research than it is in quantitative research (Rahman, 2016:107–108). The nature of qualitative research requires that "the investigator must be close enough to understand the depth of the question under study and must present enough direct quotes and detailed description to answer the research question." (Gale *et al.*, 2013:6)

In spite of the above assertions, the researcher was able to safeguard the confidentiality of the participants by using the following advice (Gale et al., 2013: 7): obtain identifying information (for example, name, address, etc.) from participants only when it is essential; assign an identification (ID) number to each participant, and attach the ID number rather than other identifiers to the actual data; Maintain any identifying information and lists of ID numbers with corresponding identifying information in a locked file; restrict access to identifying information to a small number of people on a need-to-know basis; enter no identifying information onto the computer files; destroy identifying information as quickly as practically possible; make research personnel sign confidentiality pledges if they have access to data or identifying information; and report research information in the aggregate: if the information for a specific participant is reported, take steps to disguise the person's identity, such as through the use of a fictitious name. In addition to the above:

participants were informed on an on-going basis that they had the right to withhold information; they were told how the data was to be recorded, stored, and released; the personal identity of participants was concealed, and only summarised group information or anonymous quotations were published and raw data containing participants' personal details was kept in a secured place once data had been entered on a database or once it had been analysed.

4.3.8.6.1.4 Privacy

Odai & Omenyo (2016), as cited in Aziato, state that privacy is that which normally is not intended for others to observe or analyse. Privacy is the right an individual has to determine the time, extent, and general circumstances under which personal information were shared with or withheld from others (Dunn, Das, & Das, 2004:186). In this study, the participants' privacy was protected by informed consent. The rights, interests, and wishes of participants were assured at all times, and the researcher collected only necessary information, that is, information on socio-cultural determinants and missed opportunities in maternal healthcare.

4.3.8.6.2 The quality of the research

To ensure that the research was of high quality, the researcher did the following: adhered to standards of research planning, implementation, and reporting; the standards of conduct, including supporting and opposing views, and being aware of personal biases and values, were strictly observed; the research findings were reported fully, without purposely omitting significant data, and making explicit any methods and research designs which might influence interpretation; the research supervisors, who are people with great knowledge, skills, and experience in research, ensured that the research was conducted in a moral, just, and valid way; the research methodology and techniques of analysis were disclosed accurately and completely; limitations, omissions, and failures of the study were acknowledged; and fabrication of the results was avoided.

4.3.8.6.3 Termination

The researcher explained the participants' rights to withdraw from the study. Qualitative research methods do not permit the faking of data in order to get better or more desired results. There was no coercion of the participants. In this study, fabricating the results would help neither the researcher nor the Ministry of Health in

Ethiopia, which needs to improve health services rendered to the people in this era of maternal healthcare services.

4.3.8.6.4 Dissemination of the information

According to Beyea and Slattery (2006:89), no study is complete until the findings have been shared with others. Results have to be known, because they "contribute to the base of evidence for practice", besides the fact that it is a researcher's professional responsibility to disclose the results of an investigation. Furthermore, the value of a research study will never be fully appreciated unless it is shared (Roudsari, Zakerihamidi and Merghati, 2015:168). A copy of the research report was handed to the Ministry of Health and the regional health office, where the study was conducted. The information is published in relevant journals. The participants were informed of the research outcomes if they so desire.

4.3.9 Data analysis

After data collection, each questionnaire was checked to ensure completeness. The corresponding code number was written carefully at each margin. The template scheme for data entry were developed and pre-tested for ranges, skipping patterns and allowed legal values by entering 30 questionnaires (Demis A 2017).

As two different sets of data were collected by quantitative and qualitative methods, they were also analysed differently (Aarons, Ehrhart et al. 2015). The qualitative data were analysed by thematic analysis method is critiqued for its applicability. It is determined that the thematic analysis remains a viable method for qualitative inquiry. Its quantitative nature feasibility for analysing large amounts of narrative data, and use with moderate-to-large sample sizes has appealed to the researcher seeking a rigorous method for analysing qualitative data (Anderson and Eppard 1998). Both the quantitative and qualitative data collected were analysed (ABS 1968).

4.3.9.1 Transcription and translation

All interviews were recorded using a digital recording device. They were first transcribed verbatim in Afan Oromo language and these were then translated into English by the researcher. Afan Oromo is the researcher's native language and his command of the English language made it relatively straightforward to translate the interviews. These transcribed words were translated to English as closely as possible. Thus, there were no significant issues affecting the study regarding

translation of the interview data and meaning of the words. Three transcripts were 'back translated' (Small, R., Yelland, J. & Lumley, 1999) into Afan Oromo by a person who had knowledge of both English and Afan Oromo languages for quality purposes and to ensure the accuracy of the translation. Any issues that were unclear or ambiguous were discussed with academic supervisors and resolved (Twinn, 1997), for example, with regards to cultural and traditional issues.

4.3.9.2 Qualitative data analysis

Qualitative data analysis went hand in hand with data collection. Each day summaries were made and attached to the corresponding field note. Data analysis was done manually coding the responses into themes. These were then analyzed through content analysis to come up with emerging themes relevant to answer the research questions. These themes were then categorised and summarized according to how they answered the questions. Before final conclusions were made, these views were discussed by a validation team that included two nurses and one lay person. Through the discussion consensus was reached. The sharing of preconceived notions was an essential part of this process, as it allowed the researcher to separate herself from the data. These themes were also compared with those found in previous studies of user perception of care.

Silverman (2011) stated that different approaches to qualitative analysis exist and researchers are faced with the decision about how to analyse qualitative research data. In this study, a thematic analysis process was applied. In thematic analysis a number of themes are identified in the textual data. Cherniak et al.,(2017) suggested that thematic analysis is more flexible than other specialised qualitative data analysis techniques and it is frequently used in the health and social sciences to analyse narratives, often in the form of interview transcripts, to identify patterns or trends in the form of themes.

4.3.9.3 Thematic analysis

The analysis of qualitative data involves ''discovering the patterns, themes and categories in one's data and findings emerge out of the data, through the analyst's interactions with the data'' (Patton, 2002: 453). Silverman (2006: 166) also stated that thematic analysis provides ''an indication as to the recurring themes within the data set. The initial phase of carrying out thematic analysis is for one or more

researchers to review the dataset and derive a set of themes that appear throughout''. In this study, individual characteristics of women's making choices, access to services, decision-making, cultural practices in childbirth and gender were all identified as themes.

Thematic analysis is the dominant method which has been used to analyze data in primary qualitative research in recent years (Thomas and Harden, 2008). Coding is one of the central processes in qualitative data analysis. The researcher identified themes from each interview, and then compared them across the interviews and rechecked for concurrences (Patton, 2002: 453). Iii and Caldwell (1991) suggested that in qualitative research 'coding' is a shorthand device to label, separate and compile data in original types of information. In the beginning, the researcher identified possible patterns, categories and themes based on interview transcriptions as suggested by Strauss and Corbin (1998) : meanings and relationships emerged from the data according to the 'Grounded Theory' approach (Glaser *et al.*, 2009). Coding was an inductive process (Corbin and Strauss, 1990) and was based on reading interviews line by line and sentences of translated interviews to understand their true meaning.

In thematic analysis, there are different stages in the data coding process, for example, open, axial and selective (Corbin and Strauss, 1990). In the initial stage the researcher developed themes for translated data, for instance, culture, and gender, individual and community perceptions using the transcripts of interviews. It is confusing to analyze the data without appropriate classification so in the second stage the researcher identified sub-themes and classified these into categories and labeled them. Finally, the main themes emerged and the qualitative data were analyzed and categorized accordingly. The above three stages were followed to generate the main themes and sub-themes.

The sophisticated computer software program of Atlas ti 8.2 has been developed to make it easier to analyze qualitative data (Bryman, 2004; Allwood, 2014). Therefore, the researcher analyzed the qualitative data with the help of Microsoft Word documents (e. g. naming a theme, grouping materials on a similar topic, developing patterns and categories) using options such as bold, highlighting and track changes, italics and underlining (Appendix, 8) the main themes, sub-themes and categories

(Charmaz and Belgrave, 2018). The researcher created a file for each different theme and category as word documents (Microsoft word file) and moved relevant themes to the main themes using copying and pasting methods as appropriate (Patton, 2002).

4.3.10 Quantitative data analysis

The self-administered questionnaires collected from three districts were checked for completeness, first in the district during the collecting period and entering the data. Any spoilt data would have been discarded but there were no such questionnaires among those returned. First, the data were transcribed manually onto separate sheets of paper in tabular form. Later a Microsoft Word file was created and information transformed into Statistical Program for Social Sciences (SPSS. 25) software program for data analysis to apply complicated statistical tests. I double checked the entered data to reduce the errors. I also cross-checked data for their consistency by tallying the related numbers and items, Descriptive analysis of quantitative data was carried out (including percentage and frequency) to understand the maternal healthcare views on maternity service use during prenatal, labour and delivery and postnatal services.

The quantitative part of the study, data was entered using Software Package for Social Sciences (SPSS) version 25 by the researcher. A data base was developed based from the data fields and codes in the questionnaire. Data analysis was done using SPSS. The researcher did the analysis task with support from the IT specialist.

The univariate analysis involves the use of simple statistics to examine the distribution of respondents according to socio-cultural, demographic and economic characteristics (Emmanuel 2012). Bivariate Pearson's Chi-square test statistic and two stages of Multivariate regression analysis were conducted in order to identify socio-cultural factors influencing the use of MHS outcomes in Ethiopia to identify the social factors that induce the medical proximate determinants of maternal health and to explore the cultural beliefs and those stereotypes those are associated with maternal health objectives.

The second statistical test done was a multivariate logistic regression which was conducted for each of the covariate to obtain the unadjusted odd ratio. Thereafter, a multivariate logistic regression of multi-level nature was conducted to obtain adjusted

odd ratio in order to control for the effect of covariates. The level of significance of the findings was p value of 0.05. Multiple logistic regression analysis was done and adjustments to any confounders were made accordingly. The first multivariate logistic regression was carried out to examine association between socio-cultural characteristics (age, parity), cultural (religious beliefs, ethnic affiliation, marital status, female autonomy) and socio-economic characteristics (education, income levels, place of domicile, place of residence, distance, availability of skilled health workers) and the number of antenatal visits, place of delivery, postnatal services outcomes. The strength of the covariates was also checked, based on the covariates ranks. The estimated effects of covariates on service utilisation were presented by use of odds ratio and 95% confidence intervals. An estimated odds ratio of 1 indicates use of maternal health care is not different from the reference category, if it is > 1 the likelihood of use is higher than the reference category. If it is < 1, then the probability of use of care is lower than the reference category.

Overall, the unadjusted odd ratio from multivariate logistic regression of one predictor variable at a time has two advantages: a) it provided information of how each of the predictor variables relates to each of the outcome variables; and b) it provided the basis for empirical comparison with the adjusted odd ratios obtained from the second stage multivariate logistic regression after controlling of potential covariates. Multivariate logistic regression models were developed for a) ANC visits categorized as less than four visits and four or more number of ANC visits; b) place of delivery (home or institutional) and c) postnatal service follow-up. Variables that were included the model were selected established influencers from previous research and or were found to have significant statistical association from bivariate Pearson Chi-square statistic. The odd ratio from the regression analysis was estimated at 95% confidence interval as the critical value in testing hypothesis. Frequencies and measures of variation were used to describe the study population in relation to socio-demographic and other relevant variables and the degree of association between independent and dependent variables were assessed using crude odds ratio with 95% confidence interval.

Logistic regression were considered as the more appropriate statistical method to be applied here because most of the dependant variables are categorical and

dichotomous (Hassan 2013). Calculating odds ratio was to measure strength of association, 95% CI, Population (N) =124,470 and p-values for statistical significance with the determinant factors were assessed; there were a simultaneous examination of two variables using cross tabulations. Put differently, chi-square statistical analysis was used for the test of hypotheses.

4.4 INTERNAL AND EXTERNAL VALIDITY OF THE STUDY

External validity was obtained by ensuring that all data collection process focused on the objective of the study. The interview for provincial health managers addressed questions derived directly from questionnaire for provincial health managers. This ensured that the investigation was focused. According to Bowling (1997:180), the research should apply different forms of validity to test the internal validity of the data analysed. Thus, face validity was used to test the presentation and relevance of the questionnaires and interviews. Also, the research ensured that the questions presented were focused, reasonable, unambiguous and clearly stated. Furthermore the use of hypotheses or theory was used to test validity. Then the collected data was analysed in comparison with the research hypotheses.

Bowling (1997:180) further suggests that the reliability of the data be tested using internal consistency. This process usually involves ensuring that the questions presented in the questions and interviews could be classified in one category only. Bias and error were reduced by ensuring that statements requiring a positive or negative response were followed by providing reasons for selecting that particular response. Bias in handling outliers was eliminated by repeating the data capturing process and by comparing the data fields for consistency. Each correspondent was made aware of the nature of the interview.

4.4.1 Validity of the Questionnaire

The questionnaire has been prepared by the researcher, having closed ended questions and sent to the experts for the face validity. After assessing the face validity, the questionnaire was translated into Afan-Oromo and Amharic language by Afan-Oromo and Amharic language experts to make it understandable for all the study participants. Further, modification and appropriateness for the area context was verified by the experts in the field.

The validity and reliability of the questionnaire was tested before conducting the study, since these were not established. As cited in Polit and Beck (2008:458), the face validity of the instrument “refers to weather the instrument looks as if it is measuring the appropriate construct”. Thus, face validity provides and understanding about what the questionnaire appears to measure. Therefore, the questionnaire was sent to experts observe the face validity. Experts had thoroughly checked the instrument for depth, clarity, and relevancy. The experts include PhD scholar and Biostatistician. Expert opinion was taken to check the context and language used in the questionnaire. The changes that were made based in the expert’s feedback were adding new questions. Likewise, in certain instances, the choices of responses were modified and added, keeping in view the target population. Moreover, questions to identify the participants age and age at the time of marriage were changed from the categorical to the continuous scale form. Feedback received from the experts was incorporated. Content validity is another way for examining the representativeness of the content in the questionnaire, and is based on the consensus among the group of experts in the field (Beck, 2008). A committee of experts, including Epidemiologist, biostatistician, and PhD scholar, assesses the content validity of the questionnaire.

The questionnaire was again shared with the experts, after incorporating their feedback, which was finally agreed on the administration of the questionnaire to the study participants. The questionnaires are also translated back in to English from the translated versions to ensure the actual meaning of each question.

4.4.2 Reliability of the Questionnaire

The inter-rater reliability of the questionnaire was checked on 20 participants 10 for each translated version (i.e. 20% of the calculated sample size of 85). Inter-rater reliability determines how well the two different evaluators or data collectors measure the same phenomenon of interest (Beck, 2008). The Inter-rater reliability of the questionnaire was come out to be 98%.

4.4.3 Trust of the study

A thorough reporting of the process and the results of qualitative data collection and analysis is the key to justifying and assuring that trustworthiness exists in the study (IHTRCS 2016). According to (United Nations 2011) and (Mitchell 2008) trustworthiness consists of four different criteria for assessing trustworthiness:-

credibility: the validity of the findings; transferability: the applicability of the findings in other contexts; dependability: reliability of the findings at another time; and conformability.

4.4.4 Credibility

Credibility refers to confidence in the truth of the data and the interpretations of it (Polit& Beck 2008:539). For this study, credibility was achieved through prolonged engagement, flexibility, triangulation, persistent observation, referential adequacy, and peer debriefing and member checks.

4.4.5 Transferability/applicability

This refers to the extent to which the findings from the data can be transferred to other settings or groups (Polit & Beck 2008:316). The obligation for demonstrating transferability rests on the reader and the user of the study. Transferability has been ensured through the following methods:

4.4.6 Dependability/consistency

This refers to data stability over time and over different conditions (Polit & Beck 2008:316). It means consistency when other researchers follow the same research methodology with participants in similar contexts, and that they may reach the same results. According to Babbie and Mouton (2003:278), credibility measures can be used to ensure dependability, because there can be no credibility without dependability. Dependability has been ensured through the following methods:

4.4.7 Conformability/neutrality

Neutrality is defined as freedom from bias in the research procedure and results such that there would be agreement between two or more independent people about the data's relevance or meaning. In qualitative research, neutrality should not be viewed by the characteristics of the researcher, but by the neutrality of the data (Polit, Beck & Hungler 2001:315). Babbie and Mouton (2003:278) state that neutrality of data can be achieved through an audit trail. Neutrality was achieved through an audit trail, bracketing, and intuition.

4.5 CONCLUSION

This chapter has given an overview of the design and methods of the study. It has outlined the design, methods, sampling, data collection and analysis. The next

chapter contains a detailed description of analysis, presentation and description of the research findings in the study.

CHAPTER FIVE

ANALYSIS, PRESENTATION AND DESCRIPTION OF THE RESEARCH FINDING

5.1 INTRODUCTION

The previous chapter addressed aspects of the research design and methodology of the research. This chapter presents the findings that emerged from both the qualitative and quantitative data gathered from participants in three districts in the research area. To understand socio-cultural determinants of maternal health care services, analyses of quantitative data obtained from 422 participants and analyses of qualitative data obtained from 24 focus group discussions (FGDs) and 192 respondents (i.e., 24-community health workers, 48-reproductive age women, 24-hasbands, 24-religious leader, 24-community representative, 24- mothers-in-law, 24-husbands and 24-father-in-law) were made.

5.2 Quantitative Findings

The quantitative data were collected to understand socio-cultural determinants of maternal health care services during pregnancy and childbirth. This section describes the characteristics of maternal health care services, women's socio-economic and demographic status during service use, and the socio-cultural determinants of maternal health care services.

5.2.1 Characteristics of study participants

What follows are results of the characteristics of the study participants presented based on (i) their socio demographic and economic characteristics and (ii) their cultural characteristics. These results are presented in tables below.

5.2.1.1. Socio demographic and economic characteristics

Table 5.1 below shows the socio-demographic and economic characteristics of respondents. As can be seen from this table, a total of 422 individuals (100.0%) participated in this study. The majority of the respondents were 317 (75.1%) lived in rural area. Nearly half of the women were aged 25 to 34 years. Slightly more than half of women, 225 (53.4%) and one third of their husbands, 31.8% had no formal education. Almost 75% of the women were merchants, and almost all of the respondents 98% were married or lived with a partner. In terms of religion, the

majority of the participants 92.2% of them followed Muslim religion and 94.8% of them were Oromo ethnic group.As to their monthly income, eighty seven per cent of the study subjects had monthly income of less than 2,500-ETB. Regarding the total number of children born to the respondents, 26.1% of them had only one child, while 39.3% had 2 to 4 children and 34.6% had 5 or more children. Concerning community based health insurances; only 30.6% of the respondents had such insurance. With regard to husbands' educational status31.8%had a primary level education whereas 25.1%had a secondarylevel oraboveeducation. As to husbands' occupation, 70.9% of them were merchants, while 14.2% of them were either government or NGO employees. Regarding the typesof houses they owned or the materials their houses were made of 23% the participants claimed that their house were made of Bricks/Cement, while 77% claimed theirs were made from mud or wood or both mud and wood. As regards the status of source of drinking water for the household, 77.7% of the respondents stated that they had protected water source. Finally 46.9% of respondents maintained that they had latrine facility within their compounds.

Table 5.1: Socio demographic and economic characteristics of participants

Characteristics (n=422)	Responses	Freq (No)	(%)age
Current residence area	Rural	317	75.1
	Urban	105	24.9
Age category	35-49 years	87	20.6
	25–34 years	210	49.8
	15–24 years	125	29.6
Educational status	Unable to read and write	225	53.4
	Elementary/Read and write	123	29.1
	Secondary and above	74	17.5
Occupational status	Housewife/Maid	45	10.7
	Employee (gov't/NGO)	32	7.6
	Merchant	314	74.4
	Student/Farmers	31	7.3
Current marital status	Never Married	5	1.2
	Married/living together	405	98.0
	Divorced/separated/widowed	12	2.8
Religion	Christian	33	7.8
	Muslim	389	92.2
Ethnicity	Oromo	400	94.8
	Amhara	22	5.2
Average monthly income of family in ETB	Greater than 2,500ETB	51	21.1
	Less than 2,500 ETB	371	87.9
Family size	1-4	301	71.3
	5-8	114	27.0
	Above 9	7	1.7
Enrolments into CBHI scheme	Yes	129	30.6
	No	293	69.4
Educational status of husband	Unable to read and write	134	31.8
	Elementary/Read and write	182	43.1
	Secondary and above	106	25.1
Husband' main occupation	Employee (Gov't/NGO)	60	14.2
	Farmers/Student	63	14.9
	Merchant	299	70.9
Main house types/made-of	Bricks/Cement	97	23
	Mud/wood/mixed	325	77
Drinking water source (main) status	Protected	328	77.7
	Unprotected	94	22.3
Possession of latrine facility within compound	No	224	53.1
	Yes	198	46.9

5.2.1.2. Cultural characteristics

Table 5.2 shows the cultural characteristics of married women participants of the study. As regards their age at first pregnancy 281(66.6%) of the women reported that they had their first pregnancy before the age 25,and only 141 (33.3%) of them had intendedbirths in theirlast pregnancy. Nearly 166 (40%) of women had two up to four children and 132 (33%) of women had had intention of planned use of skilled maternal health services. Slightly over fifty per cent of the women had a history of FGM of any type. Only twenty two of the respondents (5.2%) were polygamous. As is shown in table 5.2, the majority of women respondents(81.0%)reported that they

had an equal decision making power on resources as their husbands, while only six women had their own decision making power on household resources. About sixty percent of the women (59.5%) got support from their husbands/partners on maternal healthcare services. Again the majority of the women (88.2%) indicated that they had history of intra household violence in their households.

Table 5.2: Cultural characteristics of participants

Characteristics (n=422)	**Responses**	**Frequency (no)**	**Percentage (%)**
Age of mothers' at first pregnancy	<25 years	281	66.6
	>=25 years	141	33.4
Parity category of mothers	One	110	26.1
	Two-Four	166	39.3
	Five or more	146	34.
Last pregnancy intention	Planned	132	33.3
	Unplanned	290	68.7
Previous history of FGM	No	216	51.2
	Yes	206	48.8
Polygamy	No	400	94.8
	Yes	22	5.2
Husband support	No	248	58.8
	Yes	174	41.2
Decision making autonomy of mothers in the family	Wife	6	1.4
	Husband	74	17.5
	Equal right	342	81.0
Presence of intra household violence	No	50	11.8
	Yes	372	88.2

5.2.1.3. Missed opportunity of maternal healthcare characteristics

In this sub-section, characteristics of maternal healthcare such as antenatal care, delivery services and postnatal health care services are presented in turn.

5.2.1.3.1: Missed opportunity for modern Antenatal care

As can be seen from table 5.3 below, almost 15% of the women missed their opportunity of modern ANC visits during their last pregnancy. Out of those women who reported that they had ANC visits, only 4.5% of them reported they received ANC services four ormore times during their last pregnancies. Moreover, 56 per cent of these women indicated that they themselves initiated the first ANC visit during the recommended time, i.e., during the first trimester of pregnancy. As is shown in the same table, two third of respondents (68%) reported that the use of ANC had benefits not only for maternal but also for child health care services.

It can also be seen from the table that 79.0% of the women declared that they got respect from health workers. Besides, it is shown in the table that the waiting time required to get ANC services was reported to be average time by 54.1% of the respondents. The table also shows that the majority of the women (53.8) suggested that they initiated ANC services because of health problems. The survey result in the tables shows that 60.5% of respondents claimed that they received health education during ANC visits. Concerning privacy, as is shown in the table, nearly eighty-nine percent of the respondents felt that their privacy was not protected during ANC visits. Table 5.3 also shows 56% of the respondents felt that they got good quality ANC services, and very slightly over 80% of the respondents said that they had confidence on the services provided by health workers.

As is shown in the table, sixty-five per cent of the respondents reported that the health workers' behavior was good; the same table shows that almost eighty-one percent of respondents reported that they never paid for ANC, whereas sixty-five percent of the respondents reported that they paid greater than 51 ETB on average for ANC. Finally, this table shows that 88.4% of the respondents declared that their husbands had positive attitude to their wives' ANC services attendance.

Table 5.3: Maternal Healthcare characteristics of Antenatal care

ANC Service			
Characteristics (n=422)	**Responses**	**Freq(no)**	**(%)age**
Have had ANC check-ups in last pregnancy	Yes	357	84.6
	No	65	15.4
Frequency of ANC visits	Once	34	8.1
	2 times	100	23.7
	3 times	204	48.3
	4 or more	19	4.5
Did you have ANC check-up	Yes	357	84.6
	No	65	15.4
Timing of first ANC	1-3 months	202	56.6
	4 - 6 months	124	34.7
	6-9 months	31	8.7
Benefits of ANC	Maternal Health	78	18.5
	Child Health	58	13.7
	Maternal and child health	286	67.8
Health workers are respectful	Yes	282	79.0
	No	75	21.0
Waiting time to get ANC	Short time	140	39.2
	Average	193	54.1
	Long time	24	6.7
Reason for initiating ANC	Health problems	192	53.8
	Start regular check-up	161	45.1
	Other	4	1.1

Health education during ANC	Yes	216	60.5
	No	136	38.1
	I don't know	5	1.4
Lack of privacy during ANC	Yes	317	88.8
	No	40	11.2
Feeling about quality of ANC	Good	202	56.6
	Satisfactory	112	31.4
	Poor	43	12.0
Confidence on health service	Yes	287	80.4
	No	61	17.1
	I don't know	9	2.5
Ranking behaviour of health workers	Very good	41	11.5
	Good	232	65.0
	Fair	74	20.7
	Bad	10	2.8
Ever pay for ANC	Yes	67	18.8
	No	290	81.2
Average payment for ANC (N=67)	Less than 50-ETB	124	34.7
	Greater than 51 ETB	233	65.3
Attitude of husbands to ANC	Positive	373	88.4
	Negative	33	7.8
	Don't know	16	3.8

5.2.1.3.2: Missed opportunity for modern of delivery

Table 5.4 shows characteristics of delivery services women surveyed received. As shown in the table below, the majority of the respondents 79 (18.7%)missed opportunity for modern delivery. Moreover, 61.4% of them reported that they delivered at a health center during their last births, but 18.5% of them said that they delivered at home. Almost forty-five percent of the respondents reported that they delivered their babies in that particular place because there was little/no expense for delivery services. In addition, it is shown that almost forty-two percent of respondents said that they delivered at home because their relatives were nearby. The majority of the respondents (53.9%) stated that they went to a health facility foot; the survey also shows that almost half of the respondents reported that it took them less than 30 minutes to see a medical staff for service. The survey found that 50.4% of the respondents were satisfied with the care they received from the skilled birth attendant, and it was also found that 39.7% of them felt completely satisfied with the care they received from the skilled birth attendant. Nevertheless, the same survey indicated that 12.5% of the respondents were dissatisfied with the service provided at a health facility.

Table 5.4: Maternal Healthcare characteristics of delivery

Delivery Service			
Characteristics (n=422)	Responses	Freq (no)	(%) age
Used skilled delivery attendant	Yes	343	81.3
	No	79	18.7
Place of delivery	Home	78	18.5
	Hospital	81	19.2
	Health center	259	61.4
	Health Post	3	0.7
	Other	1	0.2
Why did you want to deliver your baby in that particular place	Close to where I live	83	24.2
	Little/no expense	154	44.9
	Good approach of health workers	62	18.1
	Convenient time of services	27	7.9
	High quality of services	9	2.6
	Other	8	2.3
Why you delivered at home	Expense of delivery is unaffordable	2	2.5
	Dislike behaviour of health workers	20	25.3
	Delivers at home were relatives are nearby	33	41.8
	More trust on TBAs more than Health workers	24	30.4
Mode of transport you use to go to the primary health clinic?	Walking	185	53.9
	Ambulance	70	20.4
	Public Transport	88	25.7
Average amount of time that you waited to see medical staff	Less than 30-min	173	50.4
	30min-1hr	124	36.2
	1hr-1:30 hr.	43	12.5
	1:30hr-2hr	2	0.5
	More than 2hr	1	0.3
Are you satisfied with the care you received from the skilled birth attendant?	Completely satisfied	136	39.7
	Partially satisfied	149	43.4
	Neither satisfied Nor dissatisfied	15	4.4
	Dissatisfied	43	12.5

5.2.1.3.3: Missed opportunity for modern postnatal care

Table 5.5 displays the characteristics of postnatal care services. As is shown in the table, the majority of the respondents 122 (28.9%) missed opportunity for modern postnatal care; however, 58.5% of the respondents, as is seen from the table, were partially satisfied on the PNC services. Regarding the respondents' access to a healthcare, 37.2% of them claimed that they could access a healthcare facility for PNC in more than one hour. The majority of the respondents (58.5%) felt that they were partially satisfied and 22.3% of respondents felt dissatisfied with PNC maternal health care services provided to them.

Table 5.5: Maternal Healthcare characteristics of postnatal care services

PNC service			
Characteristics (n=422)	Responses	Freq (no)	(%) age
Did you receive medical care after delivery	Yes	300	71.1
	No	122	28.9
How satisfied were you with the maternal health services you received	Completely satisfied	81	19.2
	Partially satisfied	247	58.5
	Dissatisfied	94	22.3
Access to healthcare (double trip in hrs)	Yes (=<1hour)	265	62.8
	No (> 1hrs)	157	37.2
Maternal healthcare service satisfaction rating	Completely satisfied	81	19.2
	Partially satisfied	247	58.5
	Dissatisfied	94	22.3

5.2.2. Bi-variable analysis of factors associated with maternal healthcare

Bi-variable analysis of factors associated with maternal healthcare services mainly on the three maternal services. Those are antenatal care, delivery services and postnatal care.

5.2.2. 1. Factors associated with missed opportunity of antenatal care

A bivariate analysis was done to assess any association between independent variables and missed opportunity. According to crude analysis of antenatal care services, women's main occupation, average monthly income of family, family size, enrolment into CBHI, last pregnancy intention, polygamy marriage, decision making autonomy main source of drinking water were found to be significantly associated with missed opportunityof ANC services at $p<0.001$; women's education, previous history of FGM and husband's educational level were found to be significantly associated with missed opportunityof ANC services at $p<0.01$; Intra household violence and husbands' main occupation were found to be significantly associated with missed opportunityof ANC services at $p<0.05$ whereas women's age, ethnicity, parity, house type, access to healthcare and maternal healthcare services satisfaction rating were not significantly associated with utilization of ANC services at $p<0.05$ but had $p<0.25$. However, others factors were not selected as candidate for multivariable analysis.

Table 5.6: Bi-variable analysis of factors associated with Utilization of ANC

Characteristics (n=422)	Responses	ANC Utilization		COR (95% CI)	P
		Yes (%)	No (%)		
Residence area	Rural	270(85.2)	47(14.8)	1.19 (0.66, 2.15)	0.569
	Urban	87(82.9)	18(17.1)	1	
Age category	35-49 years	70(80.5)	17(19.5)	1	
	25–34 years	177 (84.3)	33(85.7)	1.30(0.68, 2.49)	0.42
	15–24 years	110(88.0)	15(12.0)	1.78(0.84,3.79)	0.14
Educational status	Unable to read and write	180(80.0)	45(20.0)	1	
	Primary	106(86.2)	17(13.8)	1.56(0.85, 2.86)	0.15
	Secondary and above	71(95.9)	3(4.1)	5.92(1.78,19.66)**	0.004
Occupational status	Housewife/Maid	29(64.4)	16(35.6)	1	
	Employee (gov't/NGO)	30(93.8)	2(6.2)	8.28(1.75,39.30)**	0.008
	Merchant/Student/other	298(86.4)	47(13.6)	3.50(1.77,6.93)***	0.000
Marital status	Married	342(84.4)	63(15.6)	1	
	Currently not married	15(88.2)	2(11.8)	1.38(0.31, 6.19)	0.67
Religion	Christian	30(90.9)	3(9.1)	1	
	Muslim	327(84.1)	62(15.9)	0.53(0.16, 1.78)	0.30
Ethnicity	Others	21(95.5)	1(4.5)	1	
	Oromo	336(84.0)	64(16.0)	0.25(0.03, 1.90)	0.15
Average monthly income of family	Greater than 2,500ETB	40(78.4)	11(21.6)	1	
	Less than 2,500 ETB	317(85.4)	54(14.5)	0.13(0.06, 0.26)***	0.000
Family size	< 5	103(79.8)	26(20.2)	1	
	>=5	254(86.7)	39(13.3)	0.34 (0.20, 0.59)***	0.000
Enrolments into CBHI scheme	Yes	112(86.8)	17(13.2)	1	
	No	245(83.6)	48(16.4)	0.32(0.17, 0.61)***	0.000
Age at first pregnancy	<25 years	338(82.6)	6(17.4)	1	
	>=25 years	19(84.7)	4(15.3)	0.99(0.63, 1.55)	0.96

Parity category	=<3	112(85.5)	30(14.5)	1	
	>3	245(87.3)	35(12.7)	0.690.41, 1.18)	0.17
The pregnancy intention	Planned	79(90.8)	8(9.2)	1	
	Unplanned	278(83.0)	57(17.0)	0.20 (0.08, 0.44)***	0.000
Previous history of FGM	No	184(85.2)	32(14.8)	1	
	Yes	173(84.0)	33(16.0)	0.43(0.24, 0.63)**	0.001
Polygamy marriage	Yes	344(86.0)	56(14.0)	1	
	No	13(59.1)	9(40.9)	0.15(0.08, 0.30)***	0.000
Decision making autonomy of mothers	Myself/Jointly	290(83.0)	58(17.0)	1	
	Husband	67(90.5)	7(9.5)	5.10 (2.26, 11.49)***	0.000
Intra household violence	No	43(86.0)	7(14.0)	1	
	Yes	314(84.4)	58(15.5)	0.36 (0.16, 0.80)*	0.01
Educational status of husband	Unable to read and write	100(74.6)	34(25.4)	1	
	Primary	163(89.6)	19(10.4)	2.92(1.58,5.39)**	0.001
	Secondary and above	94(88.7)	12(11.3)	2.66(1.30, 5.45)**	0.007
Husband' main occupation	Employee (Gov't/NGO)	57(95.0)	3(5.0)	1	
	Student/Farmers	244(81.6)	55(18.4)	0.42(0.10, 1.71)	0.23
	Merchant/labourers/other	56(88.9)	7(11.1)	0.23(0.07, 0.77)*	0.02
Husband Support	No	203(81.9)	45(18.1)	1	
	Yes	154(88.5)	20(11.5)	1.71(0.97, 3.01)	0.06
Main house type/made-off	Bricks/Cement	87(89.7)	10(10.3)	1	
	Mud/wood/mixed	270(83.1)	55(16.9)	0.56(0.28, 1.15)	0.11
Drinking water source	Protected	243(87.4)	35(12.6)	1	
	Unprotected	114(79.2)	30(20.8)	0.20(0.11, 0.35)***	0.000
latrine facility in compound	No	187(83.5)	37(16.5)	1	
	Yes	170(85.9)	28(14.1)	0.83(0.49, 1.42)	0.50
Access to healthcare (double trip in hrs.)	Yes (=<1hour)	27(41.5)	38(58.5)	1	
	No (> 1hrs)	330(92.4)	27(7.6)	0.69 (0.41, 1.18)	0.18
Maternal healthcare's satisfaction rating	Completely satisfied	74(91.4)	7(8.6)	1	
	Partially satisfied	207(83.8)	40(16.2)	0.49 (0.21,1.14)	0.10
	Dissatisfied	76(80.9)	18(19.1)	0.40 (0.16, 1.01)	0.05

5.2.2. 2. Factors associated with missed opportunity of Delivery

Regarding the crude odd ratio analysis of delivery, pregnancy intention, previous history of FGM, decision-making autonomy, intra-household violence and husband support on maternal healthcare were found to be significantly associated with missed opportunity modern delivery service utilization at p< 0.001; Enrolment status into CBHI and possession of latrine facility within ones compound were also significantly associated with missed opportunity modern service utilization at p<0.01; average monthly income, family size, polygamous marriage, husband education, drinking, water main source, access to healthcare and maternal satisfaction rating on maternal healthcare were found to be significantly associated with missed opportunity with skilled delivery at p<0.05, whereas residence area, age of women, education of women, age at first pregnancy, parity and husband's main occupation were not significantly associated with skilled delivery utilization at p<0.05, but they had p<0.25. However other factors were not selected as a candidate for multivariate analysis.

Table 5.7: Bi-variable analysis of factors associated with Utilization of Delivery

Characteristics (n=422)	Responses	Utilization of Delivery		COR (95% CI)	P
		Yes (%)	No (%)		
Residence area	Urban	87(82.9)	18(17.1)	1	
	Rural	270(85.2)	47(14.8)	1.55(0.96, 2.49)	0.07
Age category	35-49 years	70(80.5)	17(19.5)	1	
	25–34 years	177 (84.3)	33(85.7)	1.56(0.94, 2.74)	0.09
	15–24 years	110(88.0)	15(12.0)	1.68(0.92, 3.05)	0.09
Educational status	Unable to read and write	180(80.0)	45(20.0)	1	
	Primary school	106(86.2)	17(13.8)	1.01(0.62, 1.63)	0.99
	Secondary and above	71(95.9)	3(4.1)	1.78(0.93,3.40)	0.08
Occupational status	Housewife/Maid	29(64.4)	16(35.6)	1	
	Employee (Gov't/NGO)	30(93.8)	2(6.2)	1.09(0.39, 3.08)	0.89
	Merchant/Student/other	298(86.4)	47(13.6)	0.94(0.47, 1.09)	0.87
Current marital status	Married	342(84.4)	63(15.6)	1	
	Currently not married	15(88.2)	2(11.8)	1.81(0.51, 6.40)	0.35
Religion	Christian	30(90.9)	3(9.1)	1	
	Muslim	327(84.1)	62(15.9)	0.83(0.36, 1.90)	0.66
Ethnicity	Others	21(95.5)	1(4.5)	1	
	Oromo	336(84.0)	64(16.0)	0.99(0.38, 2.60)	0.98
Average monthly income of family	Greater than 2,500ETB	40(78.4)	11(21.6)	1	
	Less than 2,500 ETB	317(85.4)	54(14.5)	0.63(0.41, 0.97)*	0.03
Family size	< 5	103(79.8)	26(20.2)	1	
	>=5	254(86.7)	39(13.3)	0.62 (0.41, 0.96)*	0.03
Enrolments into CBHI scheme	Yes	112(86.8)	17(13.2)	1	
	No	245(83.6)	48(16.4)	0.46 (0.29, 0.74)**	0.001
Age at first pregnancy	<25 years	338(82.6)	6(17.4)	1	
	>=25 years	19(84.7)	4(15.3)	0.69 (0.45, 1.06)	0.09
Parity category	=<3	112(85.5)	30(14.5)	1	
	>3	245(87.3)	35(12.7)	0.73(0.47,1.11)	0.14
Last pregnancy intention	Planned	79(90.8)	8(9.2)	1	

	Unplanned	278(83.0)	57(17.0)	0.20 (0.11, 0.37)***	0.00
Previous history of FGM	No	184(85.2)	32(14.8)	1	
	Yes	173(84.0)	33(16.0)	0.26(0.17, 0.41)***	0.00
Polygamy	Yes	344(86.0)	56(14.0)	1	
	No	13(59.1)	9(40.9)	0.47(0.24, 0.92)*	0.03
Decision-making autonomy of mothers	Myself/Jointly	290(83.0)	58(17.0)	1	
	Husband	67(90.5)	7(9.5)	4.84(2.69,8.72)***	0.00
Presence of intra household violence	No	43(86.0)	7(14.0)	1	
	Yes	314(84.4)	58(15.5)	0.23 (0.11, 0.48)***	0.000
Educational status of husband	Unable to read and write	100(74.6)	34(25.4)	1	
	Primary school	163(89.6)	19(10.4)	1.37(0.84,2.23)	0.20
	Secondary and above	94(88.7)	12(11.3)	1.93(1.07,3.49)*	0.03
Husband's main occupation	Employee (Gov't/NGO)	57(95.0)	3(5.0)	1	
	Student/Farmers	244(81.6)	55(18.4)	1.72(0.72, 4.09)	0.22
	Merchant/labourers/other	56(88.9)	7(11.1)	0.86(0.46, 1.60)	0.63
Husband support	No	159(64.5)	89(35.5)	1	
	Yes	147(84.5)	27(15.5)	3.05(1.88, 4.95)***	0.000
Main house types/made-off	Bricks/Cement	87(89.7)	10(10.3)	1	
	Mud/wood/mixed	270(83.1)	55(16.9)	0.49(0.23, 0.86)*	0.01
Drinking water source (main) status	Protected	243(87.4)	35(12.6)	1	
	Unprotected	114(79.2)	30(20.8)	0.55(0.34, 0.90)*	0.02
Latrine facility in compound	No	187(83.5)	37(16.5)	1	
	Yes	170(85.9)	28(14.1)	0.73(0.48, 1.13)	0.16
Access to healthcare (double trip in hrs.)	Yes (=<1hour)	27(41.5)	38(58.5)	1	
	No (> 1hrs)	330(92.4)	27(7.6)	0.28(0.18, 0.43)*	0.03
Maternal healthcare service satisfaction rating	Completely satisfied	74(91.4)	7(8.6)	1	
	Partially satisfied	207(83.8)	40(16.2)	0.51(0.27, 0.95)*	0.04
	Dissatisfied	76(80.9)	18(19.1)	0.63 (0.30, 1.29)	0.21

5.2.2.3. Factors associated with missed opportunity of postnatal care

Similarly, the crude analysis of postnatal, average monthly income, family size, enrolment into CBHI scheme , age at first delivery, parity, previous history of FGM, decision making autonomy, husband support on maternal healthcare and access to healthcare facility with utilization of PNC service at $p< 0.001$; intra-household violence and main source of drinking water for the family with utilization of PNC service at $p<0.01$ and polygamy and maternal satisfaction rating on healthcare were found to be significantly associated with missed opportunity modern PNC service at $p<0.05$ whereas occupation of women, religion, ethnicity, last pregnancy intention, husband's education and husband's main occupation were not significantly associated with utilization of PNC services at $p<0.05$ but had $p<0.25$. However other factors were not selected as a candidate for multivariate analysis.

Table 5.8: Bi-variable analysis of factors associated with Utilization of PNC

Characteristics (n=422)	Responses	Utilization of PNC		COR (95% CI)	P
		Yes (%)	No (%)		
Residence area	Urban	87(82.9)	18(17.1)	1	
	Rural	270(85.2)	47(14.8)	1.17(0.73, 1.90)	0.51
Age category	35-49 years	70(80.5)	17(19.5)	1	
	25–34 years	177 (84.3)	33(85.7)	0.94(0.54, 1.63)	0.83
	15–24 years	110(88.0)	15(12.0)	1.08(0.58, 1.98)	0.81
Educational status	Unable to read and write	180(80.0)	45(20.0)	1	
	Primary	106(86.2)	17(13.8)	0.77(0.51, 1.23)	0.27
	Secondary and above	71(95.9)	3(4.1)	1.44(0.77, 2.69)	0.25
Occupational status	Housewife/Maid	29(64.4)	16(35.6)	1	
	Employee (Gov't/NGO)	30(93.8)	2(6.2)	1.27(0.50, 3.27)	0.62
	Merchant/Student/other	298(86.4)	47(13.6)	1.81(0.95, 3.43)	0.07
Marital status	Married	342(84.4)	63(15.6)	1	
	Other	15(88.2)	2(11.8)	1.94(0.55,6.88)	0.30
Religion	Christian	30(90.9)	3(9.1)	1	
	Muslim	327(84.1)	62(15.9)	0.42(0.16, 1.10)	0.07
Ethnicity	Others	21(95.5)	1(4.5)	1	
	Oromo	336(84.0)	64(16.0)	0.37(0.11, 1.28)	0.11
Average monthly income of family	Greater than 2,500ETB	40(78.4)	11(21.6)	1	
	Less than 2,500 ETB	317(85.4)	54(14.5)	0.32(0.20, 0.50)***	0.000
Family size	< 5	103(79.8)	26(20.2)	1	
	>=5	254(86.7)	39(13.3)	0.42(0.28,0.65)***	0.000
Enrolments into CBHI scheme	Yes	112(86.8)	17(13.2)	1	
	No	245(83.6)	48(16.4)	0.44(0.28, 0.70)***	0.000
Age at first pregnancy	<25 years	338(82.6)	6(17.4)	1	
	>=25 years	19(84.7)	4(15.3)	0.40(0.26, 0.62)***	0.000
Parity category	=<3	112(85.5)	30(14.5)	1	
	>3	245(87.3)	35(12.7)	0.29(0.19, 0.45)***	0.000
Pregnancy intention	Planned	79(90.8)	8(9.2)	1	

	Unplanned	278(83.0)	57(17.0)	0.63 (0.39, 1.02)	0.06
Previous history of FGM	No	184(85.2)	32(14.8)	1	
	Yes	173(84.0)	33(16.0)	0.34(0.22, 0.52)***	0.000
Polygamy	No	13(59.1)	9(40.9)	1	
	Yes	344(86.0)	56(14.0)	0.46(0.24, 0.89)*	0.02
Decision-making autonomy of mothers	Husband	67(90.5)	7(9.5)	1	
	Myself/Jointly	290(83.0)	58(17.0)	3.82(0.22, 6.56)***	0.000
Intra-household violence	No	43(86.0)	7(14.0)	1	
	Yes	314(84.4)	58(15.5)	0.37(0.18, 0.77)**	0.006
Educational status of husband	Unable to read and write	100(74.6)	34(25.4)	1	
	Primary	163(89.6)	19(10.4)	0.93(0.56, 1.55)	0.79
	Secondary and above	94(88.7)	12(11.3)	0.66(0.34, 1.15)	0.14
Husband's main occupation	Employee (Gov't/NGO)	57(95.0)	3(5.0)	1	
	Student/Farmers	244(81.6)	55(18.4)	0.81(0.35,1.90)	0.63
	Merchant/labourer/others	56(88.9)	7(11.1)	0.61(0.32, 1.19)	0.15
Husband support	No	125(73.1)	46(26.9)	1	
	Yes	175(69.7)	76(30.3)	5.38(3.17, 9.14)***	0.000
Main house type/made-of	Bricks/Cement	87(89.7)	10(10.3)	1	
	Mud/wood/mixed	270(83.1)	55(16.9)	1.01(0.61, 1.65)	0.99
Drinking water source	Protected	243(87.4)	35(12.6)	1	
	Unprotected	114(79.2)	30(20.8)	0.51(0.31, 0.82)**	0.005
latrine facility in compound	Yes	170(85.9)	28(14.1)	1	
	No	187(83.5)	37(16.5)	1.04(0.68, 1.58)	0.87
Access to healthcare (double trip in hrs.)	Yes (=<1hour)	27(41.5)	38(58.5)	1	
	No (> 1hrs)	330(92.4)	27(7.6)	0.39(0.25, 0.60)***	0.000
Women healthcare service satisfaction rating	Completely satisfied	74(91.4)	7(8.6)	1	
	Partially satisfied	207(83.8)	40(16.2)	0.96(0.54, 1.71)	0.88
	Dissatisfied	76(80.9)	18(19.1)	0.46(0.24, 0.89)*	0.02

5.2.3 Multivariable analysis of factors associated with maternal healthcare

To identify the socio-cultural determinants of maternal healthcare service, three models were developed to assess missed opportunity. The first model was applied to assess factors associated with ANC use, the second model was used for factors associated with delivery service use and the third model was fitted to assess factors associated with PNC utilization.

5.2.3.1. Factors associated with missed opportunity of Antenatal care

The finding shows that women who lived in urban areas had no any significant correlation or did not use more/less services than women who lived in rural areas. However, women in the age group 15-24 years [AOR: 1.18, 95%CI: 1.18 (0.37, 3.74)] were 1.2 times more likely to seek antenatal care services than those in the age group of (35-49) years. Education continued to exert a strong and independent impact on the use of antenatal care services in Ethiopia. Women who were in secondary and above [AOR: 5.92, 95%CI: 5.92(1.78, 19.66)] were nearly six times and in primary school [AOR: 1.56, 95%CI: 1.56 (0.85, 2.86)] were nearly two times more likely to seek antenatal care services than Unable to read and write. Housewives/maids [AOR: 26.03, 95%CT: 26.03(3.43, 197.27)] were 26 times less likely to seek antenatal care service utilization when compared to women working petty trade and daily labour work.

Families with average monthly income of greater than 2,500 ETB [AOR: 10, 95%CT: 0.10(0.04, 0.25)] were 10 times more likely to seek ANC service as compared to families with less than 2,500 ETB monthly income. Households with less than five children [AOR: 2.27, 95%CT: 0.44(0.21, 0.91)] were 2.3 times more likely to seek ANC service as compared with those who had more than five children. Similarly, women enrolled in CBHI [AOR: 2.27, 95%CT: 0.44(0.20, 0.94)] were 2.3 times more likely to seek ANC services than those who were not enrolled in the insurance.

Regarding parity, the present study revealed that women who had given birth to less than 3 children [AOR: 1.79, 95%CT: 1.79(0.82, 3.87)] were less likely to seek ANC service as compared to those women who birthed more than 3 children. On the other hand, women intended their last pregnancy [AOR: 3.1, 95% CI: 0.32(0.11, 0.94)] were 3 times more likely to seek ANC services than those who had an unplanned pregnancy. In connection with this, women who had no history of FGM [AOR: 1.4,

95% CI: 0.73(0.36, 1.50)], not in polygamous marriage [AOR: 6.7, 95% CI: 0.15(0.06, 0.40)], who had equal autonomy in the household [AOR: 2.85, 95% CI: 2.85(1.13, 7.16)] and who had no violence with their partner [AOR: 2.0, 95% CI: 0.50(0.09, 2.62)] were 1.4, 6.7, 2.85 and 2.0 times more likely to seek ANC services than their counterparts, respectively. The finding also indicates that husbands who were in secondary and above [AOR: 2.66, 95%CI: 2.66 (1.30, 5.45)] were and in primary school [AOR: 2.92, 95%CI: 2.92 (1.58, 5.39)] were nearly three times more likely to seek antenatal care services than Unable to read and write.

Husbands were employed in organization [AOR: 2.6, 95% CI: 0.39(0.07, 2.36] had more than 2.6 times more likely to use skilled ANC services than those husbands employed on petty trade and daily labors. The wealth index of household shows that households with house made of cement/bricks [AOR: 1.02, 95% CI: 1.02(0.38, 2.71)] were 1.02 less likely to seek ANC than those households with houses made of mud/wood. Conversely, women who used protected source of drinking water [AOR: 5.0, 95% CI: 0.20(0.10, 0.42)] were 5.0 times more likely to seek ANC services than women who used unprotected drinking water. Finally, women who had access to health care services [AOR: 1.3, 95% CI: 1.3(0.60, 2.73)] were 1.3 times less likely to seek ANC services than women who had no access to health care services, and women who were satisfied with health care services they received [AOR: 3.3, 95% CI: 0.3(0.10, 0.90)] were 3.3 times more likely to seek the services than those (Table 5.9)

Table 5.9: Multivariable analysis of factors associated with utilization of ANC

Characteristics (n=422)	Responses	Utilization of ANC			
		COR (95% CI)	P	AOR (95% CI)	P
Age category	35-49 years	1		1	
	25–34 years	1.30(0.68, 2.49)	0.42	1.06(0.42, 2.72)	0.90
	15–24 years	1.78(0.84,3.79)	0.14	1.18(0.37, 3.74)	0.78
Educational status	Unable to read and write	1		1	
	Primary	1.56(0.85, 2.86)	0.15	4.09(0.96, 15.50)	0.06
	Secondary and above	5.92(1.78,19.66)**	0.004	1.10(0.49, 2.47)	0.81
Occupational status	Housewife/Maid	1		1	
	Employee (gov't/NGO)	8.28(1.75,39.30)**	0.008	26.03(3.43, 197.27)**	0.002
	Merchant/Student/other	3.50(1.77,6.93)***	0.000	10.67(3.73, 31.05)***	0.000
Ethnicity	Others	1		1	
	Oromo	0.25(0.03, 1.90)	0.15	0.32 (0.01, 28.51)	0.62
Average monthly income of family	Greater than 2,500ETB	1		1	
	Less than 2,500 ETB	0.13(0.06, 0.26)***	0.000	0.10(0.04, 0.25)***	0.000
Family size	< 5	1		1	
	>=5	0.34 (0.20, 0.59)***	0.000	0.44(0.21, 0.91)*	0.03
Enrolments into CBHI scheme	Yes	1		1	
	No	0.32(0.17, 0.61)***	0.000	0.44(0.20, 0.94)*	0.04
Parity category	=<3	1		1	
	>3	0.690.41, 1.18)	0.17	1.79(0.82, 3.87)	0.14
Pregnancy intention	Planned	1		1	
	Unplanned	0.20 (0.08, 0.44)***	0.000	0.32(0.11, 0.94)*	0.04
Previous history of FGM	No	1		1	
	Yes	0.43(0.24, 0.63)**	0.001	0.73(0.36, 1.50)	0.40
Polygamous	Yes	1		1	
	No	0.15(0.08, 0.30)***	0.000	0.15(0.06, 0.40)***	0.00
Decision-making autonomy of mothers	Myself/Jointly	1		1	
	Husband	5.10 (2.26, 11.49)***	0.000	2.85(1.13, 7.16)*	0.03

Intra-household violence	No	1		1	
	Yes	0.36 (0.16, 0.80)*	0.01	0.50(0.09, 2.62)	0.41
Educational status of husband	Unable to read and write	1		1	
	Primary	2.92(1.58,5.39)**	0.001	1.48(0.48, 4.55)	0.50
	Secondary and above	2.66(1.30, 5.45)**	0.007	1.97(0.82, 4.75)	0.13
Husband's main occupation	Employee (Gov't/NGO)	1		1	
	Student/Farmers	0.42(0.10, 1.71)	0.23	0.23(0.03, 1.70)	0.15
	Merchant/labourers/other	0.23(0.07, 0.77)*	0.02	0.39(0.07, 2.36)	0.31
Husband support	No	1		1	
	Yes	1.71(0.97, 3.01)	0.06	0.64(0.30,1.38)	0.26
Main house type/made-off	Bricks/Cement	1		1	
	Mud/wood/mixed	0.56(0.28, 1.15)	0.11	1.02(0.38, 2.71)	0.97
Drinking water source	Protected	1		1	
	Unprotected	0.20(0.11, 0.35)***	0.000	0.20(0.10, 0.42)*	0.00
Access to healthcare (double trip in hrs.)	Yes (=<1hour)	1		1	
	No (> 1hrs)	0.69 (0.41, 1.18)	0.18	1.3(0.60, 2.73)	0.52
Maternal healthcare satisfaction rating	Completely satisfied	1		1	
	Partially satisfied	0.49 (0.21,1.14)	0.10	0.3(0.10, 0.90)*	0.03
	Dissatisfied	0.40 (0.16, 1.01)	0.05	0.50(0.15, 1.60)	0.22

5.2.3.2. Factors associated with missed opportunity of Delivery

In multivariable logistic regression, it was found that women living in urban residences [AOR: 1.2, 95%CI: 0.86(0.25, 2.95)] had 1.2 times increased likelihood of delivery in health facility compared to women living in rural area, and the odds of delivery in health facility among women aged 20 years old [AOR: 1.43, 95%CI: 1.43(0.63, 3.25)] were 1.4 times higher than those women aged 35 years and above likely to seek delivery services. The likelihood of women's educational status was highly correlated with place of delivery. Women who were able to read and write [AOR: 0.44, 95%CI: 0.66(0.26, 1.72)] had 44% times lower chance of delivering in health facilities compared to women who were not read and write.

Average monthly income of the family greater than 2,500-ETB [AOR: 1.4, 95%CT: 1.39(0.81, 2.39)] were 1.4 times more likely to seek delivery service as compared with family monthly income less than 2,500-ETB. A household of less than five family size [AOR: 1.12, 95%CT: 0.89(0.50, 1.59)] were 1.12 times to seek delivery service as compared with who had more than five family size. Similarly women enrolled in CBHI [AOR: 1.3, 95% CT: 0.76(0.43, 1.36)] were to seek 1.3 times more likely to seek delivery services than not enrolled in the insurance. Women who first pregnant at age less than 25 years [AOR: 1.2, 95%CT: 1.19(0.67, 2.11) were 1.2 times less likely to seek delivery services than women who first pregnancy at age greater than 25 years old.

Regarding to the parity, women who had gave birth less than 3 child were less likely [AOR: 1.39, 95%CT: 1.39(0.81, 2.40)] were 1.4 times more to seek delivery services as compared with women who have more than 3 birth. Women plan to intention of last pregnancy [AOR: 5.0, 95% CI: 0.20(0.10, 0.42)] were 5 time more likely to seek delivery services than unplanned one. In connection with this women who have no history of FGM [AOR: 3.4, 95% CI: 0.29(0.17, 0.49)], not in polygamy marriage [AOR: 1.7, 95% CI: 0.59(0.26, 1.37)], and have no violence from partner [AOR: 5.6, 95% CI: 0.18(0.07, 0.47)] were 3.4, 1.7, and 5.6 times more likely to seek delivery services than the counterpart respectively. Women who had as their husbands in the household [AOR: 3.6, 95% CI: 3.64(1.84, 7.18)] were 3.6 times more likely to deliver in a health facility than those women who less autonomy than their

husbands.Husbands' who were able to read and write [AOR: 1.47, 95% CI: 1.47(0.70, 3.09)] and were employed in organizations [AOR: 1.3, 95% CI: 0.78(0.31, 1.97)] were 1.47 and 1.3 times more likely to use skilled delivery services, respectively, than husbands who were unable to read and write and were employed on petty trade and daily laborers, respectively. Women who received support from their husbands [AOR: 2.5, 95% CI: 2.51(1.41, 4.45)] were 2.5 times more likely to seek delivery services than those women who had not support from their husbands. Women's wealth status was found to be a strong predictor of health facility delivery. It was found that that women whose houses were made of cement/bricks [AOR: 2.7, 95% CI: 0.372(0.19, 0.74)] had a 2.7 more chance of delivering in health facilities than women whose houses were made of mud/wood. In contrast, women who used protected drinking water source [AOR: 1.14, 95% CI: 1.14(0.60, 2.15)] were 1.14 times less likely to seek delivery services than women who used unprotected drinking water source, and women who had latrine facility in their compounds [AOR: 1.01, 95% CI: 1.01(0.56, 1.85)] were 1.01 times less chance of seeking delivery services than women who did not have this facility in their compounds. Finally, women who had access to health care services [AOR: 3.4, 95% CI: 0.29(0.17, 0.49)] were 3.4 times less likely to seek skilled delivery services than than women who had no access to health care services, and women who were satisfied on with the health care services provided to them [AOR: 1.4, 95% CI: 0.72(0.32, 1.61)] were 1.4 times more likely to seek the skilled delivery services (Table 5.10).

Table 5.10: Multivariable analysis of factors associated with utilization of delivery

Characteristics (n=422)	Responses	Utilization of Delivery			
		COR(95%CI)	P	AOR(95%CI)	P
Residence area	Urban	1		1	
	Rural	1.55(0.96, 2.49)	0.07	0.86(0.25, 2.95)	0.81
Age category	35-49 years	1		1	
	25–34 years	1.56(0.94, 2.74)	0.09	1.41(0.71, 2.80)	0.32
	15–24 years	1.68(0.92, 3.05)	0.09	1.43(0.63, 3.25)	0.39
Education	Not read/write	1		1	
	Primary school	1.01(0.62, 1.63)	0.99	0.66(0.26, 1.72)	0.40
	Secondary/ above	1.78(0.93,3.40)	0.08	0.96(0.49, 1.87)	0.89
Average monthly of family in ETB	≥2,500 ETB	1		1	
	<2,500ETB	0.63(0.41, 0.97)*	0.03	1.39(0.81, 2.39)	0.23
Family size	<5	1		1	
	>=5	0.62 (0.41, 0.96)*	0.03	0.89(0.50, 1.59)	0.69
Enrolment into CBHI scheme	Yes	1		1	
	No	0.46 (0.29, 0.74)**	0.001	0.76(0.43, 1.36)	0.36
Age at first pregnancy	<25 years	1			
	≥25 years	0.69 (0.45, 1.06)	0.09	1.19(0.67, 2.11)	0.55
Parity category	=<3	1		1	
	>3	0.73(0.47,1.11)	0.14	1.39(0.81, 2.40)	0.23
Intention of last pregnancy	Planned	1			
	Unplanned	0.20 (0.11, 0.37)***	0.00	0.20(0.10, 0.42)***	0.000
History of FGM	No	1		1	
	Yes	0.26(0.17, 0.41)***	0.00	0.29(0.17, 0.49)***	0.000
Polygamy marriage	No	1		1	
	Yes	0.47(0.24, 0.92)*	0.03	0.59(0.26, 1.37)	0.22
Decision-making	My husband/partner	1		1	

autonomy/power	Myself/Jointly	4.84(2.69,8.72)***	0.00	3.64(1.84, 7.18)***	0.000
Intra-household violence	No	1		1	
	Yes	0.23 (0.11, 0.48)***	0.000	0.18(0.07, 0.47)*	0.01
Education of husband	Not read/write	1		1	
	Primary	1.37(0.84,2.23)	0.20	1.47(0.70, 3.09)	0.31
	Secondary and above	1.93(1.07,3.49)*	0.03	0.99(0.53, 1.83)	0.97
Husband's main occupation	Employee	1		1	
	Farmer/Student	1.72(0.72, 4.09)	0.22	0.95(0.32, 2.83)	0.91
	Merchant/labourer/other	0.86(0.46, 1.60)	0.63	0.78(0.31, 1.97)	0.60
Husband support [ANC/Delivery/PNC]	No	1		1	
	Yes	3.05(1.88, 4.95)***	0.000	2.51(1.41, 4.45)**	0.002
Main material type of house	Bricks/Cement	1		1	
	Mud/woods	0.49(0.23, 0.86)*	0.01	0.372(0.19, 0.74)**	0.005
Type of source of drinking water	Protected	1		1	
	Unprotected	0.55(0.34, 0.90)*	0.02	1.14(0.60, 2.15)	0.70
Latrine facility in compound	Yes	1		1	
	No	0.73(0.48, 1.13)	0.16	1.01(0.56, 1.85)	0.96
Access to healthcare (two trips foot walk)	=<1 Hours	1		1	
	>1 hours	0.28(0.18, 0.43)*	0.03	0.29(0.17, 0.49)***	0.000
Satisfaction rating on healthcare service	Completely satisfied	1		1	
	Partially satisfied	0.51(0.27, 0.95)*	0.04	0.72(0.32, 1.61)	0.43
	Dissatisfied	0.63 (0.30, 1.29)	0.21	0.93(0.37, 2.32)	0.87

5.2.3.3. Factors associated with missed opportunity of postnatal care

As to women who were farmers/merchants/others [AOR: 2.36, 95%CI: (0.94, 5.95)] were 2.4 times more likely to use PNC service compared to women who were housewives/maids. Being housewives/maids significantly reduced the odd of PNC service utilization by 29%.

Religion of women indicates that Christian women [AOR: 3.2, 95% CI: 0.31(0.08, 1.18)] were 3.2 more likely to seek postnatal care than Muslim women, and women from Oromo ethnic group [AOR: 1.2, 95%CI: 1.15(0.15, 8.79)] were 1.2 times more likely to get postnatal care. Families whose average monthly income was greater than 2,500 ETB [AOR:2.2, 95%CI: 0.45(0.25, 0.80)] were 2.2 times more likely to seek postnatal service as compared to families whose monthly income was less than 2,500 ETB. Again, households with less than five family members [AOR: 1.5, 95%CI: 0.65(0.36, 1.17)] were 1.5 times more likely to seek postnatal service as compared to those households with more than five family members. Similarly, women enrolled in CBHI [AOR: 2.2, 95%CI: 0.46(0.25, 0.85)] were 2.2 times more likely to seek delivery services than those women who did not have the health insurance. In addition, women whose first pregnancy were before the age of 25 years [AOR: 1.2, 95%CI: 0.87(0.48, 1.56)] were 1.2 times less likely to seek postnatal services than women who had their first pregnancy after they were 25 years old. Regarding the parity of women, women who had given birth to less than 3 children [AOR: 6.7, 95%CI: 0.15(0.08, 0.28)] were 6.7 times more likely to seek postnatal services as opposed to women who had given birth to more than 3 children. Women who intended their last pregnancy [AOR: 1.72, 95% CI: 1.72(0.84, 3.53)] were 1.72 time less likely to seek postnatal services than women who did not plan or intend their last pregnancy. In connection with obtaining PNC, women who had no history of FGM [AOR: 2.1, 95% CI: 0.48(0.28, 0.84)], who were not polygamous [AOR: 1.2, 95% CI: 0.84(0.317, 2.23)], who had equal autonomy in the household [AOR: 3.5, 95% CI: 3.45(1.74, 6.85)] and had not experienced violence from their partners [AOR: 5.6, 95% CI: 5.56(2.81, 11.01)] were 2.1, 1.2, 3.5 and 5.6 times more likely to seek postnatal services, respectively, than their counterparts.

The finding also indicates that husbands who were able to read and write [AOR: 6.7, 95% CI: 0.15(0.06, 0.37)] and who were employed in organizations [AOR: 3.6, 95%

CI: 0.28(0.10, 0.79)] were 6.7 and 3.6 times more likely to use skilled PNC services than women whose husbands were unable to read and write and those husbands who were employed on petty trades and daily labors, respectively. Women who got supports from their husbands [AOR: 6.18, 95% CI: 6.18(3.16, 12.12] were 6.18 times more likely to seek PNC compared to women who had no support from their husbands (Table 5.11).

Table 5.11: Multivariable analysis of factors associated with utilization of PNC

Characteristics (n=422)	Responses	Utilization of PNC			
		COR(95%CI)	P	AOR(95%CI)	P
Occupation	Housewife/Maid	1		1	
	Employee Gov't/Privet)	1.27(0.50, 3.27)	0.62	0.71(0.17, 2.96)	0.63
	Farmer/merchant/other	1.81(0.95, 3.43)	0.07	2.36(0.94, 5.95)	0.07
Religion	Christian	1		1	
	Muslim	0.42(0.16, 1.10)	0.07	0.31(0.08, 1.18)	0.09
Ethnicity	Other	1		1	
	Oromo	0.37(0.11, 1.28)	0.11	1.15(0.15, 8.79)	0.90
Average monthly of family in ETB	≥2,500 ETB	1		1	
	<2,500ETB	0.32(0.20, 0.50)***	0.000	0.45(0.25, 0.80)**	0.006
Family size	<5	1		1	
	>=5	0.42(0.28,0.65)***	0.000	0.65(0.36, 1.17)	0.15
Enrolment into CBHI scheme	Yes	1		1	
	No	0.44(0.28, 0.70)***	0.000	0.46(0.25, 0.85)**	0.01
Age at first pregnancy	<25 years	1		1	
	≥25 years	0.40(0.26, 0.62)***	0.000	0.87(0.48, 1.56)	0.63
Parity category	=<3	1		1	
	>3	0.29(0.19, 0.45)***	0.000	0.15(0.08, 0.28)***	0.000
Intention of last pregnancy	Planned	1		1	
	Unplanned	0.63 (0.39, 1.02)	0.06	1.72(0.84, 3.53)	0.14
History of FGM	No	1		1	
	Yes	0.34(0.22, 0.52)***	0.000	0.48(0.28, 0.84)**	0.01

Polygamy marriage	No	1			
	Yes	0.46(0.24, 0.89)*	0.02	0.84(0.317, 2.23)	0.73
Decision making autonomy/power	My husband/partner	1		1	
	Myself/Jointly	3.82(0.22, 6.56)***	0.000	3.45(1.74, 6.85)***	0.000
Intra-household violence	No	1		1	
	Yes	0.37(0.18, 0.77)**	0.006	5.56(2.81, 11.01)***	0.000
Education of husband	Not read/write	1		1	
	Primary	0.93(0.56, 1.55)	0.79	0.15(0.06, 0.37)***	0.000
	Secondary and above	0.66(0.34, 1.15)	0.14	0.434(0.22, 0.86)*	0.02
Husband's main occupation	Employee	1		1	
	Farmer/Student	0.81(0.35,1.90)	0.63	0.40(0.13, 1,25)	0.11
	Merchant/labourer	0.61(0.32, 1.19)	0.15	0.28(0.10, 0.79)*	0.02
Husband support	No	1		1	
	Yes	5.38(3.17, 9.14)***	0.000	6.18(3.16, 12.12)***	0.000
Type of source of drinking water	Protected	1		1	
	Unprotected	0.51(0.31, 0.82)**	0.005	0.98(0.51, 1.91)	0.96
Access to healthcare (two trips foot walk)	=<1 Hours	1		1	
	>1 hours	0.39(0.25, 0.60)***	0.000	0.53(0.304, 0.93)*	0.03
satisfaction rating on healthcare service	Completely satisfied	1		1	
	Partially satisfied	0.96(0.54, 1.71)	0.88	1.15(0.55, 2.41)	0.71
	Dissatisfied	0.46(0.24, 0.89)*	0.02	0.45(0.20, 1.04)	0.06

5.3. Qualitative findings

This section provides a detailed account of the qualitative results in relation to the research questions raised in this study. The thematic analysis of the qualitative data was undertaken based on ATLAS.ti.8.2 to understand basic issues raised by participants in focus group discussion, mothers-in-law, husbands and fathers-in-law regarding socio-cultural determinants of maternal health care. Based on the qualitative data, four main themes emerged from the socio-cultural determinants of maternal health care services. The qualitative data were categorized into the following themes:

1. Organizational and health system level factors
2. Community and social level factors
3. Interpersonal or family level factors
4. Individual level factors

Important sub-themes were also identified in the analysis. The four main themes along with the sub-themes are presented as follows.

5.3.1 Missed opportunity at organizational and health system level factors

What are presented in the figure below are health system missed opportunity factors that affect maternal health care. These factors include distance, lack of choice and access, transportation, time and season, lack of information, quality of services, skill of health care providers and Infrastructure.

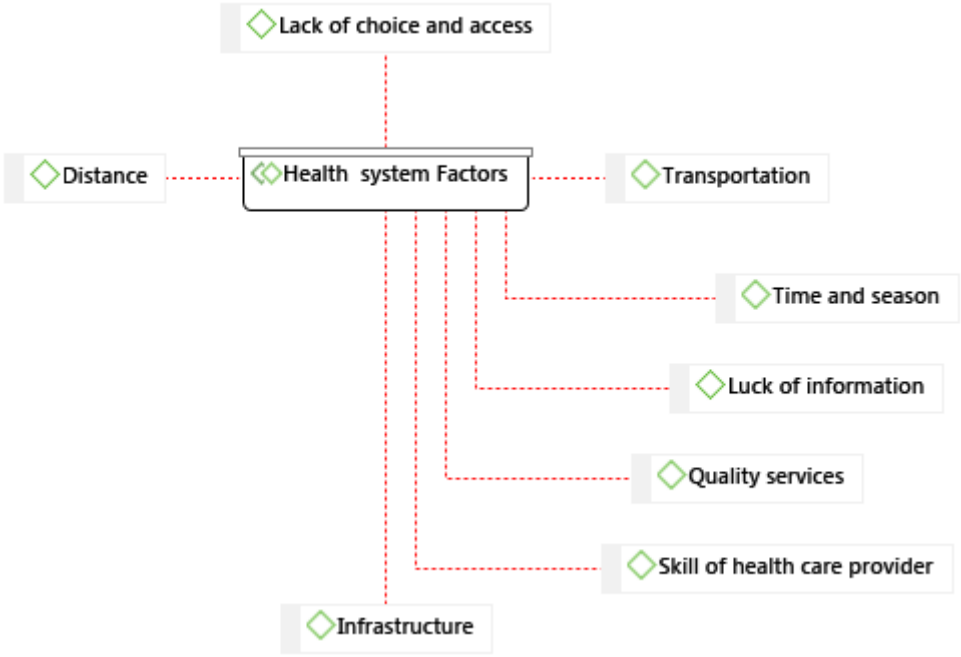

Figure 5.1: Health system factors

Table 5.12: Thematic presentation of qualitative factors associated with maternal health care services

5.3.1.1. Choice and access of maternal health care services

Theme	Category	Sub-categories
Health system factors	Choice and access of maternal health care services	Access to and utilization of maternal health services had been increasing recently with expansion of education and increased communication and awareness
		We are not so ambitious that we expect the government to provide facilities house to house
		It is not so difficult to functionalized local health posts with qualified nurses to make it easier and cheaper for a woman to access services easily in an emergency and at night.
		Support from family members, financial situations, time of the day when the labour starts, and availability of transportation service are factors that determines one's ability to go to hospital.
		It would be good if there was a Health Post with qualified nurses in this village
		shortage of skilled birth attendants and lack of transport
		In public hospital there are not enough beds in the wards, lack of running water and electricity in the hospital.

		The cost of transportation is high and it is not available in time
		I had not planned go to the hospital for delivery if everything remained normal. I felt unwell as the delivery date came nearer and nearer then I decided go the hospital for delivery
		There are no safe delivery services in this village. We had no options except going to hospital in the city.
		There were no curtains and private room so this made it difficult to change my clothes and breastfeed the baby after delivery.
		There were no trained professionals for delivery at home in the village

Focus group discussion participants reported that over the last few decades, use of the maternal health service was increasing due to expansion of education, increased communication networks and media coverage, and raised awareness of users. One community leader stated:

> *"Access to and utilization of maternal health services have been increasing recently with expansion of education and increased communication and awareness……. Besides, due to changes in attitude of the society, girls' enrolment rate in school is rising."* (Chelenko, community leader-16)

Other participants also reported that distance to the health facility and health system related factors were barriers to choosing maternal health services. A community leader said:

> *"We are not so ambitious to expect the government to provide house-to-house facilities…. But we want the government to understand the risk associated with going 3-4 hours to reach the health institution located in the town…. Besides, it is not so difficult to staff local health posts by qualified nurses to make it easier and cheaper for a woman to access services easily in an emergency and at night."* (Chelenko, community leader-13)

In the study area, the society was patriarchal and a household could occupy extended family members. Concerning the role of men with extended family and in such a society, husbands have autonomy in household resource decisions. A community leader with an extended family and who participated in a discussion reported that:

> *"Fathers have greater role in making final decisions over family issues even if the issues have been discussed beforehand. We are living in an extended family type…. When it comes to deciding over delivery matters, mothers-in-law have significant roles. Support from family members, financial situations, time of the day the labor starts, and availability of transportation service are factors that determine one's ability to go to hospital."* (Chelenko, community leader-16)

During the discussion, the participants emphasised the need for a functioning health post with trained health professionals in the village. Participants suggested that if the services were easily available in the local area, it would help to increase maternal health services. Stressing the significance of a health post with trained professionals near a village, one community leader said:

> *''It would be good if there was a health post with qualified nurses in this village…. If the facility is near, it is easier to go there. If there were some trained nurses or midwives in the village, women could ask them for advice about safe delivery…. After I delivered the baby, I hung the trowel for two hours to bring the placenta out. If there were qualified health workers, they would stop such kind of harmful practices."* (Grawa, community leader-15)

Participants of an FGD also reported that barriers to maternal health service utilization were distance, shortage of skilled birth attendants and lack of transport. Focusing on the major and related barriers to maternal health services, a health worker stated the following:

> *"The main barriers to maternal health service utilization are long distance, shortage of skilled birth attendants and lack of transport…….. And financial problem is another major factor which hinders women from going … to health facilities and our husbands do not give us money even for transport, and finance has its own impact on service utilization of maternal health care."* (Grawa, health worker-23)

Other factors related to health system affecting maternal healthcare utilizations are poor service quality due to various reasons and lack of resources. These would also discourage women from using maternal health services. In relation to these factors, a husband reported that:

> *''The public hospital is always crowded……...There are no enough beds in the wards for women to sleep after childbirth. There can be 6-8 people in a small room including visitors. Lack of running water and electricity are common problems in the hospital."* (Chelenko, husband-10)

Many participants reported that costs were significant constraints in seeking maternal health care services during pregnancy and delivery. These costs are not only the direct costs of services but also indirect costs which include loss of earnings, provision of food and accommodation for persons accompanying women to a hospital or health center. Some husbands interviewed reported that both direct and indirect costs had significant effects on the use of maternal health services. Physical access to the services also played an important role in their use. Women commonly reflected these views during the interviews. Moreover, one husband said that:

> *"The cost of transportation is high and it is not available in time even if you are ready to pay. Before getting to the main road, a woman has to be carried for more than 30 minutes…. At least 2-3 people need to go to hospital to take care of the new-born and the mother…. There are extra burdens of food, accommodation and other matters for hospital delivery. If you deliver at home, it is easier and cheaper."* (Grawa, husband-9)

Women who were older than 30 years and/or higher birth order mothers and those who had no complications in previous delivery reported that they did not plan to use maternal health care. However, some women mentioned that they used maternal health services due to weakness even if they had no initial plan for maternal health services use. In relation to this, a woman stated the following:

> *"I had not planned to go to the hospital for delivery if everything remained normal. I felt unwell as the delivery date came nearer and nearer, and then I decided go the hospital for delivery…. I think my age and my previous deliveries made me weak this time. I did not feel like this for previous births."* (Chelenko, woman-1)

Similarly, a woman who was a non-maternal health service user said:

> *''If there were safe delivery facilities in the village, I would go there but there were no such safe delivery services in this village…. We had no options except going to hospital in the city."* (Haramaya, woman-4)

Some other women reported that they preferred to go to the hospital for delivery because they felt that there was more safety in hospital, in case of complications. These women also frequently mentioned that they feared different traditional birth practices and high risk at home, as there were no maternal health care and modern health facility if needed. One of the women stated:

> *"I prefer going to hospital for delivery. There were no trained professionals for delivery at home in the village…. Different women came to our home and suggested different practices for delivery based on their experiences. I really do not like that. If you go to the hospital, you are safer there than at home…. There are health professionals and equipment for treatment at hospital but nothing in the village. There is a high risk for death or other complications when delivering babies at home."* (Grawa, woman-2)

Similarly, another woman described her reasons for maternal health services in her last delivery as follows:

> *"I delivered the first two babies in a hospital but there was a problem going to hospital due to lack of transportation.... Men carried me in a 'wosasa' (a traditional stretcher made from wood and blankets); I really don't want to go to hospital like that…. The hospital is too far to go to. It takes nearly 3-4 hours to reach there so I decided to deliver at home this time."* (Grawa, woman-7)

5.3.1.2. Delivery skill of health care provider

Theme	Category	Sub-category
	Delivery skill of health care provider	Health professionals assessed her and told me that she has to go back home and come back when her labour progresses. Then we went back home and she gave birth at home one hour after we left the health facility
		I found most of them were impolite and rude. You can get more treatment in hospital than at home in case of complications but they did not care about women in a normal situation…….. Some of the doctors and nurses were not experienced.
		One day while I was in hospital with my sister, a woman in labour arrived with a baby coming out. Meanwhile someone shouted ……she is giving birth……I see the baby!" But none of the nurses were shown up to take care of. Eventually, the baby was delivered

		with the help of women around the mother.
		I went to health center and they referred me to hospital by diagnosing narrow pelvis. Then went back home and called TBA and then I delivered after 2 days of labour.

Participants, particularly husbands, repeatedly mentioned that health service providers refused to admit mothers in labor when the mothers went to a health facility. When mothers were sent back home and advised to come when labor progressed, they did not return to the facility, and thus gave birth at home. A husband from Chelenko, recounts the following.

> ***"****Nine months ago, when my wife was in labor, I took her to hospital for delivery…. Health professionals assessed her and told me that she had to go back home and come back when her labor progressed. Then, we went back home and she gave birth at home one hour after we left the health facility."* (Chelenko, husband-12)

The women in the study were asked about their expectations concerning their experiences of childbirth and how this affected their future decisions about healthcare service use. Most women had a positive expectation about the quality services before they had used maternal health services. These women in reality found the quality of services to be different from their expectations. One participant husband said:

> *"I had hoped for faster services in the hospital. I had thought that the health personnel would behave nicely and politely…. But, I found the reverse of what I hoped for. I found most of them were impolite and rude. You can get more treatment in hospital than at home in case of complications, but these personnel did not care about women in a normal situation…. Some of the doctors and nurses were not experienced."* (Grawa, husband-9)

Moreover, women frequently mentioned that once the genitalia were cut, it remained open and the problem would be there forever. Most women participants with FGM did not consider service utilization at health facility as having any advantage. They preferred praying to Allah/God to going to a health facility. When cases which needed further management and care were identified at the health center and they were advised or referred to a hospital, they went back home and called TBAs for delivery. A woman who had been referred to a hospital related the following:

''I went to health center and they referred me to hospital by diagnosing narrow pelvis. Then went back home and called TBA and then I delivered after 2 days of labor.'' (Haramaya, woman-7)

5.3.1.3. Quality services of maternal health care

Theme	Category	Sub-category
Health system Factors	Quality services of maternal health care	I do not want to go to health facility for delivery because I do not feel comfortable sleeping on the delivery bed at the health center.

Women did not prefer to go to a health facility, especially a public health facility that had poor quality services. One maternal health care services user explains her reasons not to go to a public health facility as follows:

"*I do not want to go to a health facility for delivery because I do not feel comfortable sleeping on the delivery bed at the health center."* (Chelenko, woman-4)

5.3.1.4. Infrastructure

Theme	Category	Sub-category
Health system Factors	Infrastructure	Due to poor road condition, problems of transportation, distance, and costliness of going to the hospital in town, things would be better if there were trained doctors and nurses in the local health post

Some participants of focus group discussions reported that limited number of infrastructures made maternal health service difficult. As to infrastructures, a religious leader reported as follows:

"Due to poor road condition, problems of transportation, distance, and cost of going to the hospital in town, it would be better to go to a local health post if there were trained doctors and nurses in the local health post…. Besides, availability of the facility in the locality would enable us to go there at night and reach it easily in cases of emergencies." (Grawa, religious leader-17)

5.3.1.5. Time of labour and delivery season

Theme	Category	Sub-category
Health system Factors	Time of labour and delivery season	The labour started all of a sudden four weeks earlier than the expected due date. It was the rainy season and night-time
		My wife and I had planned to go to the hospital for delivery but the

		baby was born four weeks earlier than the expected due date. Suddenly, labour occurred in the evening and she started bleeding then we rushed to the hospital.

Several interviewees identified time of labour, season of the year and transportation as factors that affected the services that an expectant woman received. A husband narrates how these factors affected his wife's delivery as follows:

> ***"****The labor started all of a sudden four weeks earlier than the expected due date. It started at night during the rainy season…. We were walking to the hospital because there was no transportation facility at all in the evening and the baby was born half way to the hospital at night."* (Chelenko, husband-9)

Timely access to health service providers was also identified as a problem affecting utilization of maternal healthcare services even if the women had planned maternal health services during delivery. One husband reported that:

> *"My wife and I had planned to go to the hospital for delivery but the baby was born four weeks earlier than the expected due date. Suddenly, labor occurred in the evening and she started bleeding then we rushed to the hospital."* (Haramaya, husband-9)

Similarly, one of the women described her experience of maternal health services during labor and delivery as follows:

> *''My labour started at five o'clock in the evening. There was no vehicle going to the hospital in the evening. I had no option but wait until the next morning… Luckily, the baby was born at 9 o'clock at night after four hours of labour without anyone's help….If there had been transportation, I would definitely have delivered in the hospital."* (Grawa, woman-6)

5.3.1.6. Transportation

Theme	Category	Sub-category
Health system Factors	*Transportation*	shortage of skilled birth attendants and lack of transport
		We were walking to the hospital because there was no transportation facility at all
		The cost of transportation is high and it is not available in time even if you are ready to pay.
		When we called the ambulance it came very late so that we were enforced to give birth at home.

Many participants of focus group discussion singled out shortage of skilled birth attendants, lack of transport and financial problems as main barriers to maternal health care services. One of the health workers states that:

> *''The main barriers to maternal health service utilization are long distance, shortage of skilled birth attendants and lack of transport……And financial problem is one of the major factors which hinders women from going…….. to health facilities and our husbands do not give us money even for transport and it has this own impact on service utilization of maternal health care."* (Grawa, health worker-23)

Several participants mentioned that there was no transportation at night or in the rainy season and in the case of emergency. A husband stated:

> *''The labour started all of a sudden four weeks earlier than the expected due date. It was the rainy season and night-time……We were walking to the hospital because there was no transportation facility at all in the evening and the baby was born half way to hospital at night."* (Chelenko, husband-9)

Similarly, other participants in the discussion state that the cost of transportation was high and they could not afford it. A husband who had a bad experience because of lack of transport said:

> *''The cost of transportation is high and transport is not available in time even if you are ready to pay. Before getting to the main road, a woman has to be carried for more than 30 minutes…. At least 2-3 people need to go to hospital to care for the new-born and the mother…. There are extra burdens of food, accommodation and other matters for hospital delivery. If you deliver at home, it is easier and cheaper."* (Grawa, husband-9)

However, even if the participants preferred to deliver in a health facility, they admitted that the lack of transportation affected their access to the facility. A woman who was a non-user of maternal health services states that:

> ''We wanted to deliver at a health center…. But when we called the ambulance, it came so late that we were forced to give birth at home.'' (Grawa, woman-4)

Similarly, another woman described her reasons for not using maternal health services during her last pregnancy in the following manner:

> *''I delivered the first two babies in hospital but there was a problem going to hospital due to transportation…. Men carried me in a 'wosasa' (a traditional stretcher made from wood and blankets); I really don't want to go to hospital like that…. The hospital is too far to go there. It takes nearly 3-4 hours to reach it so I decided to deliver at home this time." (*Grawa, woman-*7)*

Some participants reported that there was no choice of maternal health services facility in their villages. In fact, most women expressed that their first choice for maternal services was home birth but they would also like to go to the hospital in order to reduce risks emanating from complications during labour and delivery. Religious leaders emphasized that costs and inconvenience due to the distance to the health facility affected choice of a place for delivery. One of the religious leaders reported that:

> *"In my opinion home is a good place for delivery but hospital is safer in the event of complications, though there are several burdens of going to the hospital including transportation and money. Laugh……"* (Haramaya, religious leader-20)

Moreover, men reported that limited or lack of public transport services and poor rural roads made maternal health service use difficult. A religious leader reported:

> *''Due to poor road condition, problems of transportation, distance, and costliness of going to the hospital in town, things would be better if there were trained doctors and nurses in the local health post… Besides, availability of the facility in the nearer locality would enable us go there at night and being reached in cases of emergencies."*(Grawa, religious leader-17)

5.3.1.7. Distance to health facility

Theme	Category	Sub-category
Health system Factors	*Distance of health facility*	If the facility is near it is easier to go.

Nearly all of theparticipants of the discussion reported that the availability of maternal health services at local level could increase maternal health services use through reducing the time taken to travel long distances to a facility. In connection with distance to a health facility, a community leader stated that:

> *'It would be good if there was a health post with qualified nurses in this village…. If the facility is near it is easier to go. If there were some trained nurses or midwives in the village women could ask them for advice about safe delivery…. After I delivered the baby, I hung the trowel for two hours to bring the placenta out. If there were qualified health people, they would stop such kind of harmful practices."*(Grawa, community leader-15)

Pour quality of road condition, lack of transportation, distance and direct and indirect cost of health facility affects maternal health services. One of religious leader reported:

> *''Due to poor road condition, problems of transportation, distance, and costliness of going to the hospital in town, things would be better if there were trained doctors and nurses in the local health post……Besides, availability of the facility in the nearer locality would enable us go there at night and being reached in cases of emergencies."* (Grawa, religious leader-17)

5.3.1.8. Lack of maternal health care services information

Theme	Category	Sub-category
Health system Factors	*Luck of maternal health care services information*	Women are less involved in communications and outside movements in our community. They have less knowledge about the maternity services of the country..... Especially women lack information about the safer maternity services for the first time birth.

Some women claimed that they had no idea what kind of maternity services were available at or near their residence. Due to social and cultural beliefs, first-time-mothers in particular felt embarrassed during pregnancy, and therefore did not discuss openly about pregnancy related issues. A husband stated that:

> ***"****Women are less involved in communications and outside movements in our community. They have less knowledge about the maternity services of the country.... Especially women lack information about the safer maternity services for their first-*

time birth. In addition, they feel embarrassed during pregnancy; it makes it difficult to discuss what kind of maternity services they need." (Haramaya, husband-9)

5.3.2 Missed opportunity at community and social level factors

Social level factors are social characteristics of women that missed their use of maternal healthcare services. These factors are relatives support, preferences, planned use of MHS, knowledge, family living arrangements, women's expectation, pervious history, privacy and confidentiality and parity. These factors are graphically presented in the figure below.

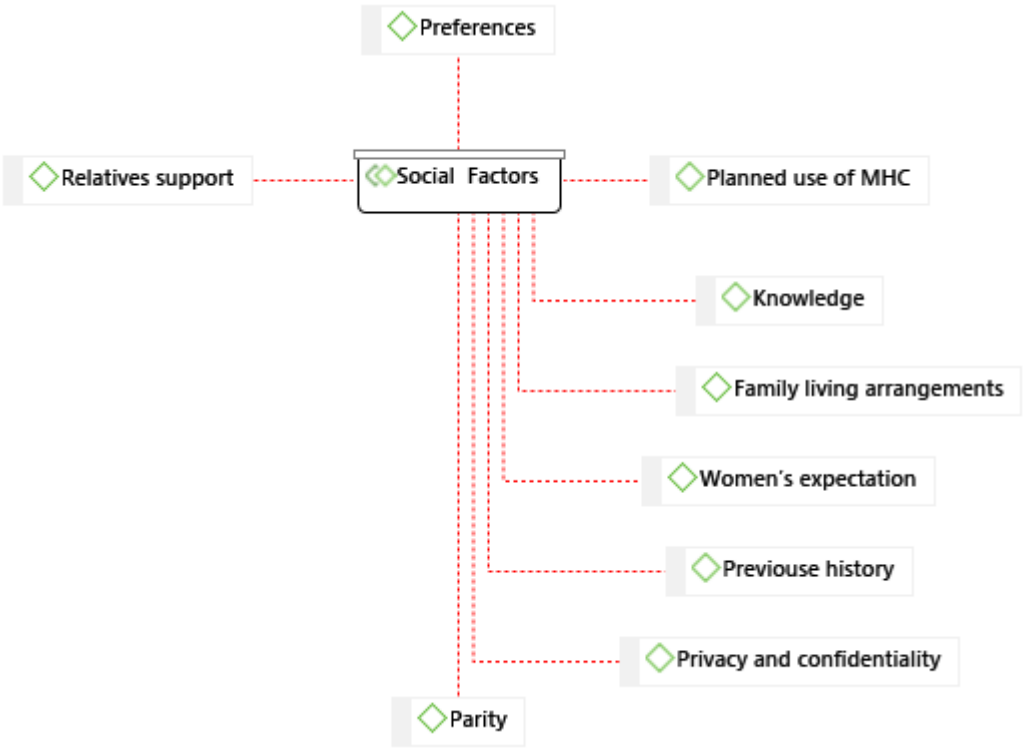

Figure 5.2: Social factors

5.3.2.1. Preferences of maternal health care services

Theme	Category	Sub-category
Social Factors	Preferences of maternal health care services	Women prefer to delivered all their children at home without anyone's help
		Pregnant women hope that the traditional birth attendants are with them to assist during labour and delivery. Women also depend on them.

		I stayed at home and when labour started I called TBA and delivered at home.
		I felt weak due to my age and number of pregnancies so my husband made me go to the hospital for safety.
		I prefer going to hospital for delivery. There was high risk in delivering at home.
		I was desperate to go to hospital.
		We wanted to deliver at health center……But when we called the ambulance it came very late so that we were enforced to give birth at home.

The older women, particularly mothers-in-law, believed that pregnancy and childbirth were normal processes not requiring special care. These women had neither an experience of professional care nor a tradition of going to the hospital for delivery of babies. One mother-in-law stated:

> *''There was no tradition of going to the hospital for delivery in our time..... Women delivered all their children at home without anyone's help. We did not even know what a doctor or nurse was but these days' women are prepared to go to the hospital when labour starts ...We were working all day and delivering babies at night without anyone's help. Some of the women delivered the baby in the jungle while collecting firewood and grass for cattle."* (Grawa, community leade-16)

One of the client related factors identified as a reason for not seeking health facility delivery was related to reliance on TBA care in the community. On expectant mothers' reliance on traditional birth attendants, a husband notes this:

> *''Pregnant women hope that the traditional birth attendants are with them to assist during labor and delivery. Women also depend on them."* (Haramaya, husband-10)

The information given during pregnancy when women went for ANC was limited. They did not have any information regarding advantage of health facility delivery and birth preparedness plan. One of the women participants' states:

> *"I have three children and delivered all of them at home…. No one asked/told me where I want to/have to deliver. Health providers told me as I finished my ANC follow up that I don't need to go again because …. I have finished my follow up. Then I stayed at home and when labor started I called TBA and delivered at home."* (Chelenko, women-1)

Women who had delivered more than three times and/or were aged over 30 years reported that they were less likely to use maternal health services. However, one woman gave safety due to her ‘‘old’’ age and the number of deliveries she had had as the reasons for using SBA services. She stated that:

> *“I went to the hospital for safety reasons. I was 38 years old during the last delivery..... It was my sixth pregnancy, and my age was not ideal for birth. I felt weak due to my age and number of pregnancies so my husband made me go to the hospital for safety.”* (Haramaya, woman-4)

Other women reported that they preferred to go to the hospital believing that there was more safety in hospital in cases of complications. They frequently mentioned fear of different traditional birth practices and high risk at home, as there was no maternal and modern health facility at home if they were needed. One of the women stated:

> *“’I prefer going to hospital for delivery. There were no trained professionals for delivery at home in the village…….. Different women came to our home and suggested different practices for delivery based on their experience. I really do not like that. If you go to the hospital; you are safer than at home…….. There are health facilities like health professionals and equipment for treatment but nothing in the village. There was high risk in delivering at home.”* (Grawa, woman-2)

One FGD participant women state that age of women has a great impact on the health of maternal health care services. One teenage participant state that:

> *‘’I was desperate to go to hospital. I was too young to give my first birth at the age of 18…. I knew it is not the ideal age for delivery as a result I asked my husband to take me to hospital for delivery. There might be high risk associated with my age during delivery.”* (Grawa, woman-8)

Similarly, women participants of the study area state that:

> *“We wanted to deliver at health center…. But when we called the ambulance it came very late so that we were enforced to give birth at home.’’* (Grawa, woman-4)

5.3.2.2. Women’s expectation of maternal health care services

Theme	Category	Sub-category
Social Factors	Women’s expectation of	I had hoped for faster services in the hospital. I had thought that the health personnel would behave nicely and politely…….. But I

	maternal health care services	found the reverse of what I hoped.
		There was big queue of women in the hospital when I went for an antenatal check-up……. I found it was different from what I had hoped before going to hospital for service use.

Women had a positive expectation about quality of maternal care services before they actually received any of these services. Women expressed their desire to have health facility staff with positive attitudes. These include giving reassurance and encouragement during labour and delivery, providing a faster service (e.g. less waiting time to be seen by maternal health services or getting a bed), with co-operative and polite behaviour from the SBAs. However, they found things different in reality. One of the maternal health services user- a husband, reported:

> *"I had hoped for faster services in the hospital. I had thought that the health personnel would behave nicely and politely…. But I found the reverse of what I hoped for. I found most of them were impolite and rude. You can get more treatment in hospital than at home in case of complications but they did not care about women in a normal situation…. Some of the doctors and nurses were not experienced."*(Grawa, husband-9)

Similarly, a woman reported her expectations about maternal health service use:

> *"There was a long queue of women in the hospital when I went for an antenatal check-up…. I found it was different from what I had hoped before going to hospital for service use. There were no female doctors…. The male doctors were there to do check-ups. The doctors pressed my tummy hard and I had pain due to that."* (Haramaya, woman-5)

5.3.2.3. Planned use of maternal health care services

Theme	Category	Sub-category
Social Factors	*Planned use of maternal health care services*	My wife and I had planned to go to the hospital for delivery but the baby was born four weeks earlier than the expected due date.

Timely access to services was a problem even if women had planned SBA use during delivery. One husband reported that:

"My wife and I had planned to go to the hospital for delivery but the baby was born four weeks earlier than the expected due date. Suddenly, labour occurred in the evening and she started bleeding then we rushed to the hospital." (Haramaya, husband-9)

5.3.2.4. Relatives influence on maternal health care services

Theme	Category	Sub-category
Social Factors	Relatives influence on maternal health care services	It was my first time though no one helped me during the delivery.
		In our society we live an extended family system where household affairs are not decided over by the couple alone. Whereas, it is the mother-in-law who has full control over the matters of pregnancy, delivery, and post-delivery care and support.
		I am always influenced by my mother-in-law who badly needs me to give her grandchildren though we had planned to delay birth for couple of years
		I got every help from my mother-in-law.

Some women, though they were young and first-time-mothers, mentioned their different reasons for not using the services, even if they had intended to. For example, a woman described her reason for not using SBA services as follows:

''It was my first time though no one helped me during the delivery. All of my family members were at work on that day and they did help to take me to hospital later…. I was walking here and there due to labor pains; the baby was born in the cowshed on the way to the toilet." (Chelenko, woman-7)

Participants, irrespective of their socio-economic circumstances and living conditions, reported that mothers-in-law had a big influence on SBA use during pregnancy and delivery of babies. Women reported that mothers-in-law are experienced so they can discuss pregnancy related problems with their daughters-in-law. Mothers-in-law mostly arranged household duties while men work outside the home. A woman stated that:

''In our society we live an extended family system where household affairs are not decided over by the couple alone…. Even the head of a household (the husband's) decision making role does not go beyond allocation of money and other issues…. Whereas, it is the mother-in-law who has full control over the matters of pregnancy, delivery, and post-delivery care and support" (Chelenko, woman-4)

A senior woman who was usually a mother-in-law had a good relationship with her husband and her son and this can be helpful in guiding and controlling her daughter-in-law and other junior family members. Relationships between mother-in-law and daughter-in-law, including mother-in-law's own delivery experience, all influence the use of maternal health services during labour and delivery. In this regard, a woman said:

> *"I am always influenced by my mother-in-law who badly needs me to give her grandchildren though we had planned to delay birth for couple of years…. However, the ever-increasing pressure from the mother-in-laws made us to change our mind and planned to have a baby soon at this early age."* (Grawa, woman-5)

Another woman reported that the relationship between mother-in-law and daughter-in-law was helpful to her regarding maternal health care services use:

> *"I got every help from my mother-in-law. She was always happy even if I delivered up to six times…. I gave birth to five daughters continuously but she did not complain, misbehave, or say bad words to me. She always supports me in work, cares for me well, and gives me good food and rest during pregnancy and after delivery."* (Grawa, woman-6)

5.3.2.5. Parity

Theme	Category	Sub-category
Social Factors	Parity	I have three children and delivered all of them at home
		It was my sixth pregnancy, and my age was not ideal for birth.
		I delivered nine children at home without anyone's help.

Most of women have not information or knowledge about maternal health care services. One women state that:

> *"I have three children and delivered all of them at home…. No one asked/told me where I want/have to deliver. Health providers told me as I finished my ANC follow up that I don't need to go again because …. I have finished my follow up. Then I stayed at home and when labor started I called TBA and delivered at home."* (Chelenko, woman-1)

Women aged over 30 years reported that they were less likely to use maternal health services. However, woman went to the health facility for safety reasons due to her ''old'' age and the number of deliveries she had had as the reason for using maternal health services. She stated that:

''I went to the hospital for safety reasons. I was 38 years old during the last delivery..... It was my sixth pregnancy, and my age was not ideal for birth. I felt weak due to my age and number of pregnancies so my husband made me go to the hospital for safety." (Haramaya, woman-4)

However, one mother-in-law commented on her perception of maternal health care use and said that pregnancy was a natural process with no need for special care during that period.

"'I delivered nine children at home without anyone's help. I never saw doctors for delivering a baby in my lifetime. Nowadays, women already know about the sex of the baby in the womb whether it is boy or girl…. Today's women consider birthing a baby is very difficult but it is a natural phenomenon so there is no need to worry." (Haramaya, woman-7)

5.3.2.6. Women's (pregnancy) history and maternal health care services

Theme	Category	Sub-category
Social Factors	Women's (pregnancy) history and maternal health care services	I think my age and number of children caused weakness this time. I did not feel like this for previous births

Women had not planned go to the hospital for delivery if everything remained normal. A woman stated:

"'I had not planned go to the hospital for delivery if everything remained normal. I felt unwell as the delivery date came nearer and nearer then I decided go the hospital for delivery…. I think my age and number of children caused weakness this time. I did not feel like this for previous births.'' (Chelenko, women-3)

5.3.2.7. Privacy and confidentiality matters on maternal health care services

Theme	Category	Sub-category
Social Factors	Privacy and confidentiality matters on maternal health care services	The male doctor inserted his hand into my vagina and other nurses were standing There were no curtains and no private room so this made it difficult to change my clothes and breastfeed the baby after delivery.

Women reported that the difficulty of maintaining privacy and confidentiality was another barrier to maternal health care use. A woman described it thus:

"The male doctor inserted his fingers into my vagina and other nurses were standing looking at that, Pause for a while. Maybe they were in training. I feel bad seeing that group of people looking at me…. There were no curtains and no private room so this made it difficult to change my clothes and breastfeed the baby after delivery. We can see each other and other people (visitors) can see us easily…. One bed for each woman after birth of the baby and private rooms or curtains around the bed to avoid seeing others would be more comfortable for all women."(Haramaya, woman-3)

5.3.2.8. Family living arrangements

Theme	Category	Sub-category
Social Factors	Family living arrangements	We are living in an extended family system……..... When it comes to deciding over delivery matters, mothers-in-law have significant role.
		In our society we live an extended family system where household affairs are not decided over by the couple alone. Whereas, it is the mother-in-law who has full control over the matters of pregnancy, delivery, and post-delivery care and support.

In the study area the society was patriarchal, and the husband was at the center of the household. A final decision of the family issue was decided beforehand. A member of community leaders states that:

''Father has greater role in making final decisions over family issues even if we discuss on them beforehand. We are living in an extended family system..... When it comes to deciding over delivery matters, mothers-in-law have significant role. Support from family members, financial situations, time of the day when the labor starts, and availability of transportation service are factors that determines one's ability to go to hospital.'' (Chelenko, community leader-16)

Mothers-in-law mostly arrange household duties while men work outside the home. In line with this, a woman stated:

''In our society we live an extended family system where household affairs are not decided over by the couple alone…. Even household's head (the husband's) decision making role does not go beyond allocation of money and other issues…. Whereas, it is the mother-in-law who has full control over the matters of pregnancy, delivery, and post-delivery care and support'' (Chelenko, woman-4)

5.3.2.9. Knowledge about the maternal health care services

Theme	Category	Sub-category
Social Factors	Knowledge about the maternal health care services	Women are less involved in communications and outside movements in our community. They have less knowledge about the maternity services of the country.
		It was my first time though no one helped me during the delivery.
		I have three children and delivered all of them at home……. No one asked/told me where I want/have to deliver.

Women in the study area were both culturally and traditionally dominated in the community. Most women had no access to education, information and knowledge. A community leader said that:

> *"'The literacy rate among women is poor in this village and girls are married at a younger age than the boys. Women lack information especially for first births. They have difficulty sharing ideas due to shyness, lack of knowledge and teenage pregnancy."* (Haramaya, community leader-14)

Unlike women, men in the study area were socially dominant, and women had less involvement in social activities, and therefore some women had less chance to communicate about different issues both within and outside the home. A husband stated that:

> *"Women are less involved in communications and outside movements in our community. They have less knowledge about the maternity services of the country.... Especially women lack information about the safer maternity services for the first-time birth. In addition, they feel embarrassed during pregnancy; it makes it difficult to discuss what kind of maternity services they need."* (Haramaya, husbsnd-9)

It is common knowledge that the society in the study area gave little emphasis to women's education. Due to lack of education and knowledge about maternal health services, teenage pregnancies were rampant in the area. One husband who participated in the discussion commented the following in this regard:

> *"'The fact that little emphasis has been given to educating girls as well as girls' marriage at younger age, literacy rate among women is very low in this village…..Teenage pregnancy of girls with lack of knowledge and who can hardly share birth related ideas among themselves due to shyness face difficulties handling first birth."* (Grawa, husbsnd-9)

As a result of lack of knowledge about pregnancy and other social factors, women did not exactly know when and where to deliver in their first pregnancy. Hence, women needed help from relatives during the first delivery. A woman relates her first experience of delivery as stated next:

> *''It was my first time but no one helped me during the delivery. All of my family members were at work on that day and they did help to take me to hospital later…. I was walking here and there due to labor pains; the baby was born in the cowshed on the way to the toilet."* (Haramaya, woman-7)

It has been found that many women, especially less educated ones, first-time and young mothers considered that being pregnant was shameful. These women reported that they had less knowledge about safer pregnancy. They could not discuss pregnancy related matters with family members due to shyness or lack of knowledge. Some women felt embarrassed when they knew they were pregnant for the first time rather than being happy. Some of the traditions affected the women's timely access to services, for example, due to shame about the pregnancy; some women even kept it secret from others until their pregnant belly grew. A woman relates her first pregnancy experience as young woman in the following lines:

> *"I was young the first time I was pregnant at the age of 16. I had no specific ideas about pregnancy and safe delivery…. It was embarrassing when my stomach started to grow. What should I do to tackle the embarrassment about what has already happened. uha…. I used to wear big and loose clothes and did not want to go anywhere outside home and chat to other people due to shyness."* (Grawa, woman-4)

5.3.3. Missed opportunity at interpersonal or family level factors

Cultural and traditional level missed opportunity factors affecting maternal health consist of gender of health care providers, behavior of health care providers, ethnicity, and autonomy of household, gender and cultural and traditional beliefs. Graphically presented in the figure below are these cultural and traditional factors.

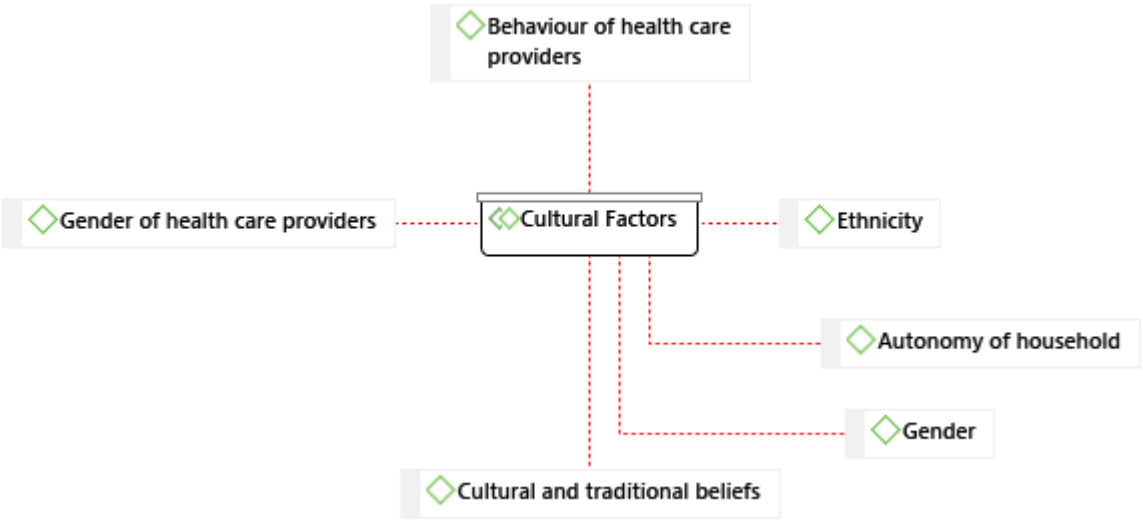

Figure 5.3: Cultural factors

5.3.3.1. Gender of health care providers

Theme	Category	Sub-category
Cultural Factors	*Gender of health care providers*	There was a big issue of gender of the health service providers.
		There were no female doctors…….. The male doctors were there to do check-ups.
		All the times I had not confront male doctors for my check-ups which were difficult for me to freely discuss.

As this study already indicated, utilization of maternal health care services in the study area was influenced, among others, by the gender of the service user. In addition to this, it has been found that the gender of health care providers also affected the utilization of the services. How the gender of the health worker affected service utilization is described as follows by one of the husbands who partook in the study:

> *"There was a big issue of gender of the health service providers.... Most of the male doctors helping women during delivery make women uneasy especially first-time mothers from the village."* (Grawa, husband-10)

As has been pointed out above, women's utilization of maternal health care services was affected by the gender of the health professional. While gender affects use of maternal care services, there were no female doctors in the facilities in the study area; it was only male doctors were there to provide maternal services to users. That made women be shy and prefer home delivery. One woman said:

> *''There was a long queue of women in the hospital when I went for an antenatal check-up.... I found it was different from what I had hoped for before going to hospital for service use. There were no female doctors..... The male doctors were there to do check-ups. The doctors pressed my tummy hard and I had pain due to that."* (Haramaya, woman-5)

In relation to how a health professional's gender affects beneficiaries of maternal health care services, a participant of the discussion group complained that all the times she had to confront male doctors for her check-ups which were difficult for her to freely discuss the situation of her pregnancy and was unable to ask about any concerns, and she said:

> *"Throughout my pregnancy, I had four antenatal check-ups. All the times I had to confront male doctors for my check-ups which were difficult for me to freely discuss the situation of my pregnancy…. I was unable to ask about any concernsHad I been served by female doctors during antenatal check-ups, I would have been comfortable to share any of my concerns regarding my pregnancy."* (Grawa, woman-5)

5.3.3.2. Behavior of health care providers

Theme	Category	Sub-category
Cultural Factors	*Behaviour of health care providers*	A woman suffering in labour is not adequately managed or handled. As a result, we become angry and begin to prefer home delivery with the help of local birth attendants.
		Some doctors are working in the private hospital and government hospital too; I did not find good behaviour from them.
		Someone shouted ……she is giving birth……I see the baby!" But none of the nurses were shown up to take care of. Eventually, the baby was delivered with the help of women around the mother.

It was reported thatin a health facility, health care providers were described as not being so much compassionate towards maternal health care service users. Due to the misbehavior of health care providers, women prefer home delivery. A community leader describes how a laboring woman was treated at a health center and the reaction it caused in the following manner.

> *''A woman suffering in labor is not adequately managed or handled. As a result, we become angry and prefer home delivery with the help of local birth attendants.''* (Haramaya, community leader-13)

Where health professionals work at, i.e., their work both at public and private health facilities, was found to be another factor that made mother to prefer home delivery to hospital delivery. The mothers pointed out that medical staff who worked in such a manner discriminate their treatment on the basis of whether they were working at a publicly- or privately-owned health facilities. The doctors who worked in both hospitals told women to go to the private health facility for better and faster services than in the public hospital. Some of these women reported that what the doctors did practiced was discriminatory. For example, one of the women stated that:

> *"Some doctors are working in a private hospital and a government hospital, too; I did not find good behavior from them.... They ordered me go to the private hospital for better and faster services instead of helping me in public hospital..... They did not care for the women. They did not even talk politely if you asked some questions.''* (Chelenko, woman-4)

Moreover, what an FGD discussant who witnessed a woman in labor getting no help from health care providers stated below could further illustrate how medical personnel working in a public hospital affected mothers' utilization of maternal care services at public health facilities. This woman said that:

> *"One day while I was in hospital with my sister, a woman in labor arrived with a baby coming out. Meanwhile someone shouted….she is giving birth…. I see the baby!" But none of the nurses showed up to take care of. Eventually, the baby was delivered with the help of women accompanying the mother."* (Haramaya, woman-7)

5.3.3.3. Ethnicity and maternal health care services

Theme	Category	Sub-category
Cultural Factors	Ethnicity and maternal health care services	The Muslim women feel that they can only be touched and seen by their husbands. That is why they do not want to be attended by male midwives.

Almost all of the focus group discussion participants were Muslims. Their religion it was learned affected the use of maternal health care services as utilization of maternal health care services was low among them. With regard to the relation between religion and use of maternal health care, a religious leader said:

> *"The Muslim women feel that they can only be touched and seen by their husbands. That is why they do not want to be attended by male midwives."* (Chelenko, religious-19)

5.3.3.4. Autonomy of household

Theme	Category	Sub-category
Cultural Factors	*Autonomy of household*	Labour and delivery is a women's matter so mothers-in-law can play an important role in making it easier
		Father has greater role in making final decisions over family issues even if we discuss on them beforehand.
		Therefore, I have to depend on my husband for everything though my husband asks me before doing something. Both of us discuss and decide what it is best to do.

It has been found out that who decides the use of maternal care services depended on the degree of autonomy of women had in the household. A participant husband who was a community leader, for instance, declared that labour and delivery was a ''women's matter'', so mothers-in-law had a significant role in decision making for service use. However, men also had a major say in deciding whether women should deliver at home or hospital. One community leader elaborated it as follows:

> *"Labor and delivery are a women's matter, so mothers-in-law can play an important role in making it easier.... However, in our patriarchal society men are powerful voices in the family. The men have more value than the women in this society in many ways.... Most families have a male-headed household, so he has a vital role in decision making for health seeking behavior and many more matters such as education, travel, and work."* (Chelenko, community leader-14)

This study indicates that women sometimes could decide whether to deliver at home or not regardless of their economic status. This decision, however, could be overruled by mothers-in-law if the woman did not have a nuclear family. Regarding the use of maternal health service, a service-user woman living in a nuclear family reported what is next.

> *''I did not work outside the home for money.... I did not earn any money.... Therefore, I have to depend on my husband for everything though my husband consults me before doing something. Both of us discuss and decide what is best to do.''* (Haramaya, woman-3)

Gender plays an important role in decision-making in the society where men are considered as more important than women socially and culturally. Participants reported that male family members had more influence in decision-making than females. On the role of gender in decision making in maternity service use, a non-maternal health care user woman reported:

> *"As per the socially constructed gender roles, husbands are the breadwinners and the decision makers over big household issues while women are seen as dependents and as responsible for household chores…. As a result, men's voices are easily heard than women's…… A woman in labor and delivery who has an adult male in her family can get more help as compared to the one who has no adult male member in her family…. The entire community trusts a male borrower in need of money rather than a woman borrower. Women who have male members in their family feel more secure in such a male-dominated society."* (Haramaya, community leader-14)

5.3.3.5. Gender and maternal health care services

Theme	Category	Sub-category
Cultural Factors	Gender and maternal health care services	Men have higher social position in our society so do husbands in the family.
		Whereas a decision made by a man is influenced by his job, level of income, and education

As has been just described in the preceding paragraph, gender played an important role in decision-making in society where men are considered socially and culturally as more important than women. Participants in general reported that male family members had more influence in decision-making than females, as the following lines show.

> *''Men have higher social position in our society so do husbands in the family. Whereas a decision made by a man is influenced by his job, level of income, and education….Hence men with better education and economically better-off are capable of being acceptable in their decision not only in their respective families but also in the community''* (Chelenko, husband-11)

5.3.3.6. Cultural and traditional beliefs

Theme	Category	Sub-category
Cultural Factors	*Cultural and traditional beliefs*	In our patriarchal society men have a big voice in the family. The men have more value than the women in this society in many ways
		Cultural and traditional beliefs were high in our time.
		After I delivered the baby, I hung the trowel for two hours to bring the placenta out.
		There was no tradition of going to the hospital for delivery in our time
		Different women came to our home and suggested different practices for delivery based on their experience.
		I am always influenced by my mother-in-law who badly needs me to give her grandchildren though we had planned to delay birth for couple of years……However, the ever increasing pressure from the mother-in-laws made us to change our mind and planned to have a baby soon at this early age.

		I had facing the difficulty of unremoved placenta for 2 hours after delivery……. The TBA asked me to hang a trowel over the placenta for 2 hours and inserted her hand into my vagina and took it out.
		The mother-in-law has a big influence because they have more experience about pregnancy and delivery..... It is easier to share problems with a mother-in-law than with other members in the family.

In the study area, cultural and traditional beliefs often influenced women's use maternal care services. These cultural and traditional issues positioned men to have more power than women in the society. The position that men had in the society generally enabled them to make a final decision on matters pertaining to women's personal, social and economic lives What a community leader from one of the localities in the study area said can represent how cultural and traditional beliefs affected women's use of maternal care services.

> *"Labor and delivery are a women's matter, so mothers-in-law can play an important role in making it easier.... However, in our patriarchal society men are powerful voices in the family. The men have more value than the women in this society in many ways.... Most families have a male-headed household, so he has a vital role in decision making for health seeking behavior and many more matters such as education, travel, and work."* (Chelenko, community leader-14)

It was learned that mothers-in-law had more power than their daughters-in-law because of cultural and traditional beliefs in the past. As a result of this power differential, women's use of maternal care services used to be easily determined by their mothers-in-law. However, there had been changes regarding the care of pregnant women and the availability of maternity services in recent years. In the past, the community in general and pregnant women in particular used to have no access to modern services; as a result, women had no options except to follow the traditional practices related to pregnancy and delivery. Below a community leader compared how access to health facility changed in the study area over time and how the influence of cultural and traditional beliefs were gradually waning.

> *''Cultural and traditional beliefs were high in our time. I had a problem with expelling the placenta for my fifth birth. It did not come out for three days…… At that time*

> *people gave me healing water to drink. I tied a trowel over placenta, tried to vomit by putting hair into my mouth, and tied a rail ticket to my back but all those did not work..... There were no doctors at that time so these were common practices during delivery of the baby, but nowadays women go to hospital if they have such problems."* (Chelenko, community leader-16)

As a result of the expansion of health facilities in the research area, women reported that the availability of maternal health care services at local level increased SBA use by reducing the time taken to travel long distances to a facility. They also mentioned that access to reliable transportation services could help timely access to a service. If there were trained health personnel in the facilities, women could also take advice from them if complications arose during delivery. In connection with this, one community leader stated that:

> *''It would be good if there was a Health Post with qualified nurses in this village…. If the facility is near it is easier to go. If there were some trained nurses or midwives in the village women could ask them for advice about safe delivery……After I delivered the baby, I hung the trowel for two hours to bring the placenta out. If there were qualified health people, they would stop such kind of harmful practices.''* (Grawa, community leader-15)

From group discussions with participants, it was found that women particularly older women believed that pregnancy and childbirth was a normal process not requiring special care. These women neither received professional care nor had a tradition of going to the hospital for delivery. A community leader, for instance, stated the following in this regard:

> *''There was no tradition of going to the hospital for delivery in our time.... Women delivered all their children at home without anyone's help. We did not even know what a doctor or nurse was like but these days women are prepared to go to the hospital when labor starts.....We were working all day and delivering babies at night without anyone's help. Some of the women delivered the baby in the jungle while collecting firewood and fodder for cattle.''* (Grawa, community leader-16)

This study indicates that some mothers would prefer getting maternal health services at health posts. During the interviews, the participants emphasised the need for a functioning HP with trained health professionals in the village. Participants suggested

that if the services were easily available in the local area, it would help to increase maternal health service use during delivery of the baby. One woman thus said the following:

> *''I prefer going to hospital for delivery. There were no trained professionals for delivery at home in the village…. Different women came to our home and suggested different practices for delivery based on their experience. I really do not like that. If you go to the hospital; you are safer than at home…. There are health facilities like health professionals and equipment for treatment but nothing in the village. There was high risk in delivering at home.''* (Grawa, woman-2)

In spite of some mothers or would-be mothers' preferences, utilization of maternal health care services was always influenced by my mothers-in-law who badly needed their daughters-in-law to bear grandchildren, though the daughters-in-law had planned to delay birth for a couple of years. One of participant women said that:

> *''I am always influenced by my mother-in-law who badly needs me to give her grandchildren though we had planned to delay birth for couple of years…. However, the ever-increasing pressure from the mother-in-laws made us to change our mind and planned to have a baby soon at this early age.''* (Grawa, woman-5)

Another woman reported that the relationship between mother-in-law and daughter-in-law was helpful to her regarding maternal health care uses:

> *''I got every help from my mother-in-law. She was always happy even if I delivered six times…… I gave birth to five daughters successively, but she did not complain, misbehave, or say bad words to me. She always supports me in work, cares for me well, and gives me good food and rest during pregnancy and after delivery.''* (Grawa, woman-6)

Another finding that the current study revealed is that cultural and traditional practices of the society influenced the utilization of maternal health care services in the study area. How such practices influenced use of maternal health care services is described by a woman who participated in the discussion next.

> *''I had faced the difficulty of unremoved placenta for 2 hours after delivery…. The TBA asked me to hang a trowel over the placenta for 2 hours and inserted her hand into my vagina and took it out.''* (Grawa, woman-6)

Moreover, what one community leader stated below illustrates how social and cultural beliefs and practices influenced use of maternal health care services.

> *''As per the socially constructed gender roles, husbands are the breadwinners and the decision makers over big household issues while women are dependents and responsible for household chores……As a result, men's voices are easily heard than women's… A woman in labor and delivery who has an adult male in her family can get more help as compared to the one who has no adult male member in her family…. The entire community trusts a male borrower in need of money rather than a woman borrower. Women who have a male member in their family feel more secured in such a male dominated society.''* (Haramaya, community leader-14)

It has been found that socially mothers-in-law had significant roles in their sons' households. For example, they mostly managed their sons' household duties while the men worked outside the home. As a result of their roles, as was stated by some FGD participants, mothers-in-law could even influence whether their daughter-in-law should get SBA's services during pregnancy and delivery. What is more, religious leaders also reported that mothers-in-law were experienced, so they could discuss pregnancy related problems with their daughters-in-law. The following quote illustrates how socially and culturally mothers-in-law were influential with regards to the use of maternal health care services.

> *''In our society, concerning maternity services, such as antenatal check-ups or childbirth, mothers-in-law have big influence because they have more experience about pregnancy and delivery..... It is easier to share problems with a mother-in-law than with other members in the family. Husbands are mostly working outside the home, so they do not know much about pregnancy matters. Mothers-in-law can provide good food, rest and other care as they have more responsibility inside the house.''* (Chelenko, religious leader-17)

The study shows that education is one of the most important factors affecting use of maternal health services. Generally, women in the study area were less educated than men. Women who had dropped out of school at an early age tended to have less knowledge about safer pregnancy and delivery services. Other women also stated that educated mothers were more likely to use SBA services during delivery of a baby. One religious leader stated her views as follows:

''Girls are less educated in our society than the boys.... Daughters are married at a younger age than the son in the family.... When the daughter enters into puberty and menstruates for the first-time, parents are more worried about getting her married rather than sending her to school…. Those who were married young and dropped out of school early do not have the knowledge about safe delivery." (Grawa, religious leader-20)

5.3.4 Missed opportunity at individual level factors

Age, education, direct and indirect costs and employment of women are the socio-demographic and economic level factors are missed opportunity of women's maternal healthcare uses, and they are shown in Figure 5.4 below.

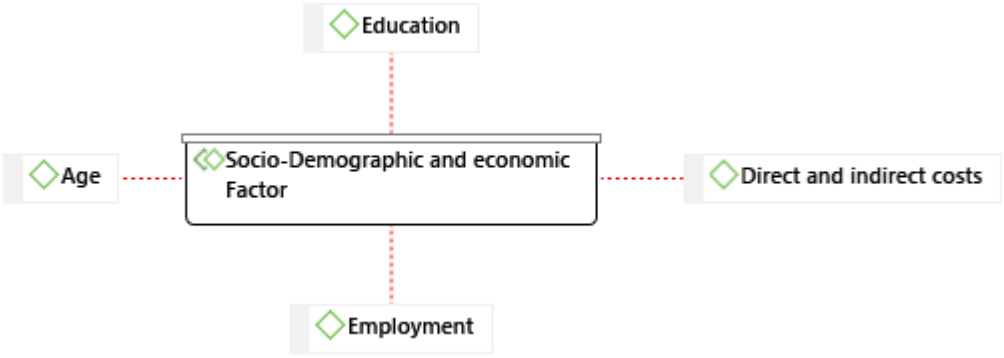

Figure 5.4: Socio-Demographic and economic factor

5.3.4.1. Age of women's

Theme	Category	Sub-category
Socio-demographic and economic Factor	Age of women's	I was 38 years old during the last delivery. I felt weak due to my age and number of pregnancies so my husband made me go to the hospital for safety.
		I was too young to give my first birth at the age of 18…..... I knew it is not the ideal age for delivery as a result I asked my husband to take me to hospital for delivery. There might be high risk associated with my age during delivery

As has been found out in this study, a woman's ability to influence decisions as to using SBA care depended on her position in the household, which in turn depended on her age, level of education, and her job. A health worker explains how these factors affect a woman's use of SBA as follows:

> *"A woman's ability to influence decisions as to using SBA care is highly correlated with her position in the household which in turn depends on her age, level of education, and her having an income generating job…. I worked and earned income to set some money aside for delivery period. As a result, I could easily convince family members as to my intention to deliver at hospital."* (Cheklenko, health worker-22)

Women who preferred to deliver at a health facility on account of safer delivery at the facility than home. How safety mattered to one participant is described by her next:

> *"I went to the hospital for safety reasons. I was 38 years old during the last delivery.... It was my sixth pregnancy, and my age was not ideal for birth. I felt weak due to my age and number of pregnancies so my husband made me go to the hospital for safety."* (Haramaya, woman-4)

Participants who were young, first-time mothers, and who had delivered one or two children were more likely to use maternal health care services than those who had three or more children and/or who were aged thirty years and older. One of the younger, first-time mother said the following about hospital birth:

> *"I was desperate to go to hospital. I was too young to give my first birth at the age of 18…. I knew it is not the ideal age for delivery as a result I asked my husband to take me to hospital for delivery. There might be high risk associated with my age during delivery."* (Grawa, woman-8)

5.3.4.2. Women's education

Theme	Category	Sub-category
Socio-demographic and economic Factor	***Women's education***	Due to changes in attitude of the society, girls' enrolment rate in school is rising.
		The literacy rate among women is poor in this village
		Decision made by a man is influenced by his job, level of income, and education
		Girls are less educated in our society than the boys.

Access and utilization of maternal health care services increased with the expansion of education, media and women's raised awareness of maternal health care services. Focusing on women's education, one community leader states what follows:

> "*Access to and utilization of maternal health services has been increasing recently with expansion of education and increased communication and awareness…. Besides, due to changes in attitude of the society, girls' enrolment rate in school is rising."* (Chelenko, community leader-16)

Husbands who participated in this study also expressed their views about women's education and its relation to safer delivery. According to one community leader,

> *"The literacy rate among women is poor in this village and girls are married at a younger age than the boys. Women lack information especially for first births. They have difficulty sharing ideas due to shyness, lack of knowledge and teenage pregnancy."* (Haramaya, community leader-14)

What is more, it has been found out that gender, as a socio-demographic factor, influenced the knowledge and education of women. In the community where this study was conducted, men had high social position in the household. One husband describes that:

> *''Men have higher social position in our society, so have husbands in the family. However, a decision made by a man is influenced by his job, level of income, and education…. Hence, men with better education and better economy are capable of making their decisions acceptable not only in their respective families but also in the community."* (Chelenko, husband-11)

As the community in this study paid less attention to girls' education than boys'. Girls, unlike boys, were married while they were teenagers. As regards women's education, a religious leader states that:

> *"Girls are less educated in our society than the boys....Daughters are married at a younger age than sons in the family.... When a daughter enters into puberty and menstruates for the first-time, parents are more worried about her getting married rather than sending her to school…. Those who were married young and dropped out of school early do not have knowledge about safe delivery."* (Grawa, religious leader-20)

5.3.4.3. Direct and indirect costs of services

Theme	Category	Sub-category
Socio-demographic and economic Factor	*Direct and indirect costs* of services	Decision made by a man is influenced by his job and level of income
		The cost of transportation is high and it is not available in time even if you are ready to pay.
		When pregnant mother wants to deliver at health institution it costs her 500 to 5000- birr. However, if the woman delivers at home it costs her only 200-birr for TBA.
		My husband was unemployed when I was pregnant.

Because of cultural and traditional practices men in the study area had higher social position in the household, and because of better education and higher income, men had power to make decisions on utilization of maternal health services. What follows is a description of the power men in the study community have as explained by a husband who participated in the study.

> *"Men have higher social position in our society. Whereas a decision made by a man is influenced by his job, level of income, and education…. Hence, men with better education and economy are capable are capable of making their decisions acceptable not only in their respective families but also in the community."* (Chelenko, husband-11)

Concerning indirect costs of using maternal health services, one participant of a focus group discussion states that the cost of transportation was high and access to transport services was scarce. In connection with this extra cost on food, accommodation and other indirect costs, one husband said the following:

> *"The cost of transportation is high and it is not available at all time even if you are ready to pay. Before getting to the main road, a woman has to be carried for more than 30 minutes…. At least 2-3 people need to go to hospital to care for the new-born and mother…. There are extra burdens of food, accommodation and other matters for hospital delivery. If you deliver at home, it is easier and cheaper."* (Grawa, husband-9)

The present study showed that women had varying experiences and perceptions regarding the choice of maternal health services use during labour and delivery. Many Participants believed that using a maternal health service was not very

important unless there were complications in pregnancy. Thus, some women preferred to deliver at home if their pregnancy was normal. Furthermore, they preferred a home delivery to a hospital because they believed going to hospital for the service involved many costs (both direct and indirect) and it required them to arrange several things for travel on poor roads. Accordingly, the following text is an explanation of one participant's preference of whether to use home or hospital delivery.

> *"'I would prefer to deliver at home because there are loads of stresses involved in hospital delivery, e.g. transportation, road and money. At least, two people need to go to hospital to care for mother and new-born.... There is a problem of provision of food and accommodation for everyone in hospital…. Delivery in the hospital is costlier than at home. If you delivered at home, there were would be no extra burdens."* (Chelenko, woman-2)

Some participants of focus group discussion describe how indirect and direct costs of using a health institution affected maternal health care services. These women because of the costs preferred a home delivery than a hospital delivery assisted by skilled birth attendants. Concerning this, a religious leader states that:

> *"When a pregnant mother wants to deliver at health institution, it costs her 500 to 5000 birr. However, if the woman delivers at home, it costs her only 200 birr for TBA."* (Chelenko, religious leader-18)

Nearly half of participants reported that there was no choice of maternal health care service in the village. If someone wanted to use this service, she had to go to hospital in the city. These women participants said the issues associated with going to the hospital were costs and inconvenience due to the distance to the health facility. They said that if there were maternal health care facility in the village, it would be cheaper, less time-consuming, and easier for all women. In connection with this, one of the religious leaders reported the following:

> *"In my opinion, home is a good place for delivery, but hospital is safer than home in the event of complication. However, there are several burdens of going to the hospital including transportation and money. Laugh……"* (Haramaya, religious leader-20)

5.3.4.4. Women's employment

Theme	Category	Sub-category
Socio-demographic and economic Factor	Women's employment	I did not work outside the home for money.....I did not earn any money
		My husband was unemployed when I was pregnant.

A woman's employment is an economic factor that determines her use of maternal care services. For example, a woman living in a nuclear family reported that she was involved in the decision-making regarding her use of maternal health services, even though she had no income, and she said what is given next:

> *"I did not work outside the home for money.... I did not earn any money.... Therefore, I have to depend on my husband for everything though my husband consults me before doing something. Both of us discuss and decide what is best to do."* (Haramaya, woman-3)

Women who were living in a nuclear family also reported that they were more likely to make decisions by themselves or together with their husbands regarding maternal health service use. A woman who considered herself as a head of household and living in a nuclear family stated:

> *"My husband was unemployed when I was pregnant. He had no income at that time.....He had no vital role in the decision-making in the family because he just had to follow whatever his parents consults him to do.... If he had a paid employment and was independent, he would definitely be involved in the household's decision-making."* (Haramaya, woman-5)

5.4. CONCLUSION

The findings of the study show that a wide range of missed opportunity influenced maternal health care service use in the study area. These include individual characteristics of the women themselves, their families and communities, organisation of services and the wider public policy. The data also reveals those women's individual characteristics, community perceptions and socio-economic status of the family, as well as women's experiences determined women's utilisation

of maternal health services. In addition, women's individual characteristics, such as age at childbirth, parity, previous pregnancy history, education and employment status and ethnicity were found to be factors that affected use of maternal health services. The direct and indirect costs of services, cultural and traditional beliefs, and gender roles in decision-making were other factors affecting maternal health services use.

Furthermore, the findings of the study show that access to and availability of maternal health services influenced mothers or would-be mothers' use the health services during labour and delivery. Transportation, road conditions, and distance as well as the infrastructure of the health services affected maternal health use. In addition, family and community factors, such as women's position in the household, husband's employment and income, family structures and women's autonomy in decision-making had significant influences on maternal health use.

In addition to the factors identified above, women's personal experiences and preferences, the gender of health care providers and their behavior and attitudes to service users, the women's expectations of the care providers, the health professionals' ability of maintaining privacy and confidentiality during labor, delivery and after childbirth were found to be other factors that influenced maternal health service use. Finally, time of the day, the season in which labor commenced, the political instability in the country also were factors found to have affected the use of maternal health.

CHAPTER SIX

DISCUSSIONS OF SOCIO-CULTURAL DETERMINANT AND MISSED OPPORTUNIYT OF MATERNAL HEALTHCARE

6.1 INTRODUCTION

The previous chapter primarily focused on the analysis of the qualitative and quantitative data. The collected data served as the basis upon which the true value and weight of the research findings could be supported as having practical and meaningful implications for the study and it's relevant for stakeholders.

The central aim of this chapter is to present the multivariable associated factors of socio-cultural determinants and missed opportunity of maternal health care services that can contribute to health sector reform in Ethiopia. The research examined the viability of this thesis in comparison with the literature on evidence-based practices of maternal health care services. Furthermore, it is intended to objectively broaden the study's practical implications and meaningfulness by presenting the discussions, conclusions and recommendations.

According to previous international protocols, 1978 Alma Ata declaration number VIII;

> ''All governments should formulate national policies, strategies and plans of action to launch and sustain primary health care as part of a comprehensive national health system and in coordination with other sectors. To this end, it will be necessary to exercise political will, to mobilize the country's resources and to use available external resources rationally.''

This was complemented by declaration number VII, sub section (7) which reads:

> ''…relies, at local and referral levels, on health workers, including physicians, nurses, midwives, auxiliaries and community workers as applicable, as well as traditional practitioners as needed, suitably trained socially and technically to work as a health team and to respond to the expressed health needs of the community…''

This was reinforced by subsequent international and regional conferences including the 1994 ICPD which stated that:

> "…to promote women health and safe motherhood: to achieve a rapid and substantial reduction in maternal mortality and morbidity.....To improve the health and nutritional status of women, especially pregnant women and nursing women..."

However, despite Ethiopia being a signatory to Alma Ata and ICPD declarations, and having responsibility to implements these declarations, the country‘s women‘s utilization of maternal health services which is meant to support all women speaks volumes about the quality of services delivered or perceived challenges negatively influencing women and compelling them not to rely on facility based maternal health services.

One implication of this shortfall is that Ethiopia will have challenges to ensure healthy lives and promote well-being for all at all ages as stipulated in Sustainable Development Goal number three (United Nations, 2015).

- By 2030, reduce the global maternal mortality ratio to less than 70 per 100,000 live births
- By 2030, end preventable deaths of newly born and children under 5 years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under-5 mortality to at least as low as 25 per 1,000 live births
- By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being
- By 2030, ensure universal access to sexual and reproductive health-care services, including for family planning, information and education, and the integration of productive health into national strategies and programmes
- Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all.

6.2 Factors associated with maternal healthcare

To identify missed opportunity of socio cultural determinants of maternal healthcare services in the study area, three models were developed. The first model was developed to assess factors associated with ANC use. The second model was developed to identify factors associated with delivery service use, while third model was fitted to assess factors associated with PNC utilization.

6.2.1 Factors associated with utilization of Antenatal Services

The first model was fitted for institutional prenatal services. The multivariate factors associated with utilization of ANC are age of women, educational status, occupation of women, ethnicity, monthly income of household, family size, enrolment into CBHI, parity, intention, history of FGM, polygamy, autonomy of women, violence, house type, drinking water, access to maternal care providers and maternal satisfaction, and husband's education, occupation and support to his wife.

6.2.1.1 Individual level factors

The multivariate factors associated with utilization of individual level factors ANC are age of women, educational status, gender and behaviour of healthcare providers**,**occupation of women, monthly income of household, history of FGM, polygamy, autonomy of women, violence, access to maternal care providers and maternal satisfaction and support to wife.

6.2.1.1.1. Women's age

Women's age was significantly associated with ANC utilization. The finding shows that ANC utilization was highest in the youngest age group (15-24 years) and reduced as the age of the women increased. This finding is in line with studies from Ethiopia and South Sudan (Birmeta, Dibaba and Woldeyohannes, 2013:6; Ayele *et al.*, 2014; Melaku *et al.*, 2014; Vermaak, 2015).

The current finding shows youngest women have lower percentage of missed opportunity when compared to old age women. The gap could be mainly due to the probably that younger mothers are more enlightened by their education about the consequences and the benefits of ANC utilization and are more knowledgeable about modern ANC services.

6.2.1.1.2. Women's education

The study has established evidence that the level of education has empirical influence on women's utilization of ANC. The finding shows that pregnant women's education continues to exert a strong and independent impact on the use of antenatal care services in Ethiopia. Women who were in secondary and abovewere nearly six times and in primary school were two times more likely to seek antenatal care services than Unable to read and write. The justification for this might be educated mothers have achieved better autonomy at home have more opportunities to know about pregnancy and its various complications, and have the opportunity to communicate freely with other family members on issues related to pregnancy and women's. This impact was confirmed by several studies in developing countries (Tsegay *et al.*, 2013; Gupta *et al.*, 2014; Shahabuddin *et al.*, 2017). Consequently, educating women in India, Nigeria and South Sudan can contribute positively to the improvement of ANC services utilization and hence reduce the level of maternal mortality (Gupta *et al.*, 2014; Azuh, Fayomi and Ajayi, 2015a; Vermaak, 2015).

6.2.1.1.3. Gender of healthcare providers

This study has demonstrated that a number of cultural factors influence women's choice and use of maternal healthcare services in eastern Ethiopia where the present study was conducted. Therefore, maternal healthcare services utilization is influenced by the gender of the head of the household and by the gender of healthcare providers. This finding is consistent with the findings of similar studies conducted in Namibia, Kenya, and India (Press, 2012; Lowe, Chen and Huang, 2016).In addition to the gender of healthcare providers, male family members influence females' utilization of maternal healthcare services because the communities in the study area are patriarchal. Therefore, ''gender plays an important role in decision-making in the society wherein men are considered as more important than women socially and culturally''. This finding is similar to the study done by (Neil and Domingo, 2015).

6.2.1.1.4. Behaviour of healthcare providers

How healthcare providers behave towards MHC users is also another factor that influences use of MHC services. In order to improve utilization of MHC services by women, health professionals should behave compassionately towards maternal healthcare service users in the facility. This finding is in agreement with a study by

(Mannava *et al.*, 2015) that indicated the misbehavior of health professionals made women prefer a home delivery to a hospital one.

6.2.1.1.5. Religion and maternal healthcare services

In eastern part of Ethiopia, particularly where this research was done, almost all of the communities are Muslims whose use of MHC services was low. As a result, this study finds that religion is another socio-cultural factor that affects women's utilization of maternal healthcare services. This finding consistent with the finding done in Ethiopia by (Ayele *et al.*, 2014; Kifle *et al.*, 2017; State, Seifu and Meressa, 2017).

6.2.1.1.6. Autonomy

Women's preference and use of MHC services are determined by the autonomy they have in the household. As the communities in the research area have a patriarchal structure, most women do not have parity with men in making decisions concerning use of MHC services and decisions over family issues***.*** This finding is consistent with the study done in Ghana and Nepal by (Lewis, Lee and Simkhada, 2015; Craymah, Oppong and Tuoyire, 2017). In addition, Women who have equal autonomy in their households were 2.85 times more likely to seek ANC services than their counterparts. The result of the present study is found to be similar with previous studies in Ethiopia (Birmeta, Dibaba and Woldeyohannes, 2013; Yaya, Bishwajit and Ekholuenetale, 2017). ''Husband's or partner's approval of ANC was most significantly related to antenatal care attendance.'' It is expected that having a husband who approves antenatal care significantly increases the likelihood that a woman used antenatal care, irrespective of the husband's background characteristics. Therefore, efforts to improve husband's or partner's attitude would probably increase utilization of health services by women.

6.2.1.1.7. Cultural and traditional beliefs

In thispatriarchal society, cultural and traditional beliefs about labour and delivery and type of family affect women's use of MHC services. Consequently, ''women's use of MHC services can be decided by husbands and mothers-in-law who have a powerful voice in the household.'' This finding is again consistent with the results of studies done in Ethiopia and Nepal (Roudsari, Zakerihamidi and Merghati, 2015; Ugwu and Kok, 2015; Pun *et al.*, 2016; Mesele, 2018).

6.2.1.1.8. Occupation

In terms of women's occupation, it has been found that housewives/maids were 26 times less likely to seek antenatal care services when compared to women who were petty traders or daily laborers. This result in the present study area is similar with the result of a study done in Bako, town in Oromia, Ethiopia wherein being a housewife or a private employee is associated with ANC visit and independent institutional delivery (Tadele and Lamaro, 2017).

6.2.1.1.9. Household's Wealth

The findings indicate that there was a significant association between a household's wealth and utilization of ANC services at least once among the respondents of the study group. Respondents in the richest quintile were ten times more likely to use ANC at least once than those in the poorest quintile. This gives some explanation as to why economically rich women are more likely to use ANC than poor women. This outcome is consistent with the findings of studies done in Ethiopia, India, Mozambique, Nepal and South Sudan(Birmeta, Dibaba and Woldeyohannes, 2013; Singh *et al.*, 2014; Biza *et al.*, 2015; Vermaak, 2015; Shahabuddin *et al.*, 2017). In other side the study was disclosed that husbands' occupation was associated with skilled ANC service use. Women whose husbands were employed in organizations were more likely to use ANC services than women whose husbands were petty traders or daily laborers. In fact, it indicates that husbands who were employed in organizations were 2.6 times more likely to use skilled ANC services than who were petty traders or daily laborers. This finding was in agreement with the results of other studies that found that women with husbands in non-farming occupations were more likely to use ANC and institutional delivery (Tsegay *et al.*, 2013; Terfasa, Afework and Berhe, 2017).

6.2.1.1.10. Community Based Health Insurance

Women enrolled in CBHI were 2.3 times more likely to seek ANC services than those not enrolled in the insurance scheme. To put this in plain words, for women to make better use of ANC services in Ethiopia, given the poor infrastructure of the country, they have to spend resources for transportation, and medication. This finding is consistent with the study done in Kenya where women who have such insurance scheme have significantly increased their access to antenatal care visits to four (Bellows *et al.*, 2013:135).

The study has found that the wealth index of a household shows that a household whose house was made of cement/bricks was 1.02 less likely to seek ANC than a household whose house was made of mud/wood. Consequently, a household's wealth status is significantly associated with the utilization of prenatal health services (Tarekegn, Lieberman and Giedraitis, 2014:5). A similar study also shows that women from the richest households were more likely to use skilled ANC services than those women who were from the poorest households (Roro *et al.*, 2014:6).

6.2.1.2.Interpersonal or family level factors

The number of children had been found to be significantly associated with their maternal health seeking behavior, especially antenatal care service. A household with less than five children was found to be 2.3 times more likely to seek ANC service as compared with a household with more than five children. It was also found that utilization of antenatal services declined with the increase in number of births. Given that a woman had six and above safe delivery history, she may feel healthy but is less likely to seek maternal health care services (Kifle *et al.*, 2017a:9). On the contrary, when the number pregnancy increases, the woman might feel it risky, and she is likely to seek maternal health care services. The current study, however, has found that number of births is negatively associated with antenatal care service seeking (Kifle et al. 2017).The finding shows small numbers of children have lower percentage of missed opportunity when compared to high number of children. The gap could be mainly due may feel healthy.

The present study revealed that pregnant women with a smaller number of children utilized ANC often times compared with women with a larger number of children. This finding was found to be consistent with previous studies done in South Sudan which confirmed the direct association between the number of children born to a woman and ANC utilization (Vermaak, 2015). The high utilization of ANC services in this group might be attributed to health complications as a result of the increased number of pregnancies. Moreover, the knowledge, experience and confidence a woman with more children gains from previous pregnancies may lead to more frequent ANC utilization (Singh *et al.*, 2014). On the contrary, other studies had revealed that a low number of parity to a woman associated with more frequent ANC used; this might be attributed to low educational level or close attachment to local

cultures and traditions which restrict women with high parity to use ANC even if she is at risk (Vermaak, 2015)

6.2.1.3. Community and social level factors

Concerning ANC use, women's attitude towards their current pregnancy, i.e. whether or not the pregnancy was planned or not, was found to affect ANC utilization. Women who intended or planned their last pregnancy were three times more likely to seek ANC services than those who did not plan. The present study revealed the same result as (Birmeta, Dibaba and Woldeyohannes, 2013). Unplanned pregnancy is highly suggestive of lack of access to appropriate family planning opportunities. Therefore, ANC might be an appropriate point of contact for promotion of family planning.

Again, women who had no history of FGM were 1.4 times more likely to seek ANC services than their counterparts. Other studies show that women with FGM are more significantly at risk of cesarean section, postpartum hemorrhage, episiotomy, extended maternal hospital stay, resuscitation of infants, low birth weight infants, and inpatient prenatal death (Egenberg *et al.*, 2017). Although, other studies conducted women with FGM are significantly more at risk of cesarean section, postpartum hemorrhage, extended maternal hospital stay, resuscitation of infants, low birth weight infants, and inpatient prenatal death (Abdulcadir, Rodriguez and Say, 2014).

This study revealed that women whose husbands were polygamous were negatively associated with their husbands' involvement. Women who were not in polygamous marriage were 6.7 times more likely to seek ANC services than their counterparts. In a polygamous society, husbands may have difficulty in changing their perception as they do not need to be involved in maternal issues (Kwambai *et al.*, 2013; Wai *et al.*, 2015). Thus, husbands' involvement should be enhanced to mitigate barriers against maternal care services utilization.

The study also found a significant association between emotional IPV and likelihood of having first ANC within three months of gestational age. In connection with this, women who had no violence from their partners were 2.0 times more likely to seek ANC services than those women with any experience of violence. This finding is consistent with the study done in Nigeria where women who reported that they had

ever experienced emotional IPV in their relationship were less likely to have their first ANC within the first trimester of their pregnancy, which supports the report of a study in (Mohammed *et al.*, 2017). Similarly, the study found that women who have been sexually abused in their relationship were less likely to use ANC four or more times.

6.2.1.4. Organizational and health system level factors

Woman whose ANC attendance was influenced by cost or distance were two times more likely to experience an adverse outcome compared with women whose attendance was not influenced by these factors. Women who have access to healthcare services were 1.3 times less likely to seek ANC services than those who have no access to healthcare services. Access influence ANC attendance and are also associated with adverse pregnancy outcomes (Asundep et al., 2013: 281).

6.2.2. Factors associated with Delivery

For these analyses, the second model was fitted for institutional delivery. The multivariate associated factors that affect delivery are residence area, age category, education, family income, family size, enrolment in community health insurance, age at first pregnancy, parity, intention of last pregnancy, FGM, polygamy, autonomy, household violence, types of house material, source of drinking water, latrine facility, health access and healthcare satisfaction rate, and husband's education, occupation and support.

6.2.2. 1.Individual level factors

6.2.2. 1. 1. Women's age

Women's age was significantly associated with use of delivery services. It was found that pregnant women who were in their under twenties years were 1.4 times higher likely to seek delivery services than those women who were 35 years and older. The finding shows that delivery utilization was highest in the youngest age group (15-24 years) and its use reduced as the women got older and older. This finding is in line with studies from Ethiopia (Shahabuddin *et al.*, 2017; Tadele and Lamaro, 2017).

Teenage mothers are more likely to experience adverse pregnancy outcomes and are more constrained in their ability to pursue educational opportunities than young women who delay childbearing. Women whose first pregnancy was under the age 25 years were 1.2 times less likely to seek delivery services than women whose first pregnancy was at or later than 25 years old. This finding is consistent with the study

done in Ethiopia where childbearing have risen rapidly from 2 per cent among 25-year old women age and 15 to 28 per cent among those aged 19 years old (CSA 2016:15).

6.2.2. 1. 2. Education

In addition to pregnant women's residence and age, their educational status is found to have contributed to their delivery healthcare service seeking behavior in maternal healthcare service, the likelihood of women's educational status was highly correlated with place of delivery. Women who were able to read and write had 1.5 times higher chance of delivering in health facilities compared to the non-educated women. This finding of education having an effect delivery is consistent with the findings of other studies (Tsegay *et al.*, 2013; Kifle *et al.*, 2017; Shahabuddin *et al.*, 2017). Additionally In the multivariate analysis, husband's education also showed statistically significant association with skilled delivery at birth. The finding also indicates that husbands' who were in Secondary and above were 2.66 times and in primary school were 2.96 times more likely to use skilled ANC services than those who were unable to read and write. This finding that husbands' decisions are important when it comes to assisting a woman's delivery is consistent with the result of a study by (Sakeah *et al.*, 2014). Husbands are mostly family heads and key deciders on their families' welfare and that power to take decisions extends to maternity care.

Educational attainment has been found to be positively associated with the choice of institutional delivery, which suggests the existence of demographic and regional patterns with respect to MHS utilization. Husbands who were able to read and write were 1.47 times more likely to use skilled delivery services than those who were not able to read and write. This result also revealed that the educational attainments of husbands are significant predictors of delivering at healthcare facilities, which is consistent with previous findings among women who had no formal education (Sakeah *et al.*, 2014; Yaya, Bishwajit and Ekholuenetale, 2017).

6.2.2. 1. 3. Household Wealth

The current study also supported the common finding that mothers from rich households are more likely to attend to a delivery care service. A household with an average monthly income of greater than 2,500 ETB was 1.4 times more likely to seek delivery service as compared with family with an average monthly income of

less than 2,500 ETB. This finding can be explained by the availability of funds to spend on hospital for deliveries and obtain subsequent services such as postnatal care. Likewise, mothers from higher socioeconomic households are also more likely to be aware of the benefits of obtaining delivery care through different media such as television and newspapers than their counterparts from low socioeconomic groups. This finding is similar to the findings from Ethiopia, India and Nepal where mothers from higher socioeconomic group attend skilled delivery services (Smith and Neupane, 2011; Khanal *et al.*, 2014; Enuameh *et al.*, 2016).

Women's wealth status was found to be a strong predictor of health facility delivery. It was found that a family whose house was made of cement/bricks had 2.7 times more chance of delivering in health facilities than a family whose house was made of mud/wood. It was noted that there was a strong correlation between the wealth index and the use of maternal care services. This result is consistent with the study done in Kenya (Kawakatsu *et al.*, 2014). Households on quite a limited budget could have difficulty paying fees, and therefore would tend to be less likely to use a health facility for delivery. In addition, women of low economic status are known to have lower rates of seeking maternal healthcare.

6.2.2. 1. 4. Community Based Health Insurance

Another factor that had association with health delivery service was a woman's having valid health insurance. Women enrolled in CBHI were 1.3 times more likely to seek delivery services than those who were not enrolled in the insurance. This is in line with previous findings which highlighted insurance-based programs and fee exemptions result in higher rates of health facility delivery (Enuameh *et al.*, 2016).

6.2.2. 1. 5. Autonomy

Women autonomy also has influence on deciding places for delivery. Women who have equal autonomy in household were 3.6 times more likely to deliver in health facility than those whose place of delivery is decided by husbands only. Studies show that giving women decision-making powers by their spouses could raise the rates of delivery at healthcare facilities (Lowe, Chen, & Huang, 2016:7).

6.2.2. 1. 6. Husband occupation

In addition, husbands´ occupation was associated with delivery use. Husbands who were employed in organizations were 1.47 times more likely to use skilled delivery services than those who were petty traders or daily laborers. This finding was

comparable to the results of other studies that found women with husbands employed in organizations were more likely to use institutional delivery (Tsegay *et al.*, 2013).

A study in Benin reported that factors like husbands' approval and money for treatment had negative effects on maternal health seeking behavior (AJSC, 2013). It is found that women with husbands' support were 2.5 times more likely to seek delivery services than women with no support from their husbands. On the other hand, the gender disparity in land ownership impacts the economic status of women and further perpetuates a high level of dependency on their husbands, leading to male dominance (Azuh 2015:105). Adding another voice, findings from a research carried out by Hansford, Anjorim, and Pittore (2014) indicated that although women may have access to land or retain control over their own income, many have no influence on the use of their husband's income.

6.2.2. 2.Interpersonal or family level factors

What is more, there is a significant association between family size and facility delivery in this study. A household of less than five family members was 1.12 times more likely to seek delivery services as compared to women who had more than five family members. The finding shows that families in the study area with high birth rates may be more conservative toward maternal health services (Kawakatsu *et al.*, 2014). A large family size might be a reflection of the degree of a woman's independence. Additionally, the decision-maker in the household with a large family is usually the father. Further research should include the indicator on these factors so that the effect of family size were become a more concrete indication.

Parity appears commonly as a major factor responsible for the utilization of delivery. Regarding parity, women who had given birth to more than 3 children were 77% times more likely to seek delivery services as compared with women who had more than 3 births. This result is also consistent with other national studies in which the probability of giving birth at health facilities decreases for women with five or more births (Tsegay *et al.*, 2013; Melaku *et al.*, 2014; Shahabuddin *et al.*, 2017). One reason for this relationship could be the limited access to resources and time constraints related to child care and household activities.

6.2.2. 3.Community and social level factors

Research conducted by Hagos et al.(2014) on women's intention about where to deliver was associated with use of professional medical care. Women who planned or intended their last pregnancy were 5 times more likely to seek delivery services than those pregnant women whose last pregnancy was an unplanned one. The study conducted by Kifle *et al*. (2017) confirm that individual attitude towards healthcare providers and perceptions on the quality services provided in health facilities were factors influencing maternal health service seeking behaviors' of women.

Similarly, it was found that women who had no history of FGM were 3.4 times more likely to seek delivery services than their counterparts. Studies have shown that women with FGM are significantly more at risk of cesarean section, episiotomy, extended maternal hospital stay, and inpatient prenatal death than women without FGM (Egenberg *et al.*, 2017).

The present study also found that women who were not in polygamous marriage were 1.7 times more likely to seek delivery services than their counterparts. This finding is also consistent with indicated that polygamous women are less likely to obtain treatment for which a monetary fee was required (Thobejane and Flora, 2016:1062).

Various researchers across the global regions have identified GBV as a major contributor to poor reproductive outcomes (Bishwajit, Sarker and Yaya, 2017). Women who have no violence from their partners were 5.6 times more likely to seek delivery services than their counterparts. The finding is consistent with the finding of (Silverman and Raj, 2014) that states abused women are twice as likely to report unintended pregnancy and three times more likely to give birth as an adolescent compared to those not experiencing any violence.

6.2.2.4.Organizational and health system level factors

In households that have sanitation facilities, women are more likely to give birth at a health facility. Women who use protected source of drinking water were 30% times more likely to seek delivery services than women who use unprotected drinking water; women who have latrine facility in their compounds had 4% times more chance to seek delivery services. This indicator would be associated with health

awareness/practices in the household and the level of available expenditure for health amenities (Kawakatsu *et al.*, 2014).

Physical proximity of healthcare services plays an important role in the service utilization. Women who have access to healthcare services were 3.4 times more likely to seek ANC services than those who have no access to healthcare services. The study shows that reducing maternal deaths, especially in rural areas of Ethiopia, required not just provision of medical care but an engagement of the whole society. Significantly, maternal deaths can be reduced by reducing early pregnancies, early marriages, and by ensuring that health facilities are accessible (Kalasa and Jacobson, 2012: 10).

In multivariable logistic regression, it was found that women living in urban areas had 1.2 times increased likelihood of delivery in a health facility compared to women living in rural areas, whose odds of delivery in a health facility was low. Better information about and access to services are likely to explain much of these differences. Further, urban women have generally received more education than rural women. The finding that a woman's residence has an effect on where she is likely to deliver is consistent with the findings of other studies in Ethiopia (Acharya *et al.*, 2010; Melaku *et al.*, 2014).

6.2.3. Factors associated with postnatal care

The third model developed was fitted for postnatal care utilization. The multivariate associated factors that affect PNC are occupation, religion ethnicity, family income, family size, enrolment in community health insurance, age at first pregnancy, parity, intention of last pregnancy, FGM, polygamy, autonomy, household violence, husband education, support and occupation, source of drinking water, health access and healthcare satisfaction rate.

6.2.3.1 Individual level factors

6.2.3.1.1. Age of women

This study has shown that women's ability to influence decisions as to using SBA care depends on their position in the household and which in turn depends on their maternal age. This is to say that young women, first time mothers, and mothers with one or two children were more likely to use maternal healthcare services than those

who had more than three children and/or who were aged thirty years and older. This finding of the present study is consistent with the findings of studies done in Kenya and Uganda (Turyakira and Pettersson, 2012; Nyandieka *et al.*, 2016).

6.2.3.1.2. Education

This study has demonstratedthat access and utilization of safer maternal healthcare services increase along with the expansion education, media and awareness of maternal healthcare services. Thus, education of women delays early marriage improves gender parity and increases knowledge of maternal healthcare services. This finding is in agreement with the results of studies done in urban India and the Sudan (Singh, Kumar and Pranjali, 2014; Shiekh and Kwaak, 2015).

Among the socio-demographic factors, the key predictor for PNC utilization in this study was found to be the educational status of husbands. According to this finding, husbands who were able to read and write were 6.7 times more likely to let their partners use skilled PNC services than husbands who were not able to read and write. This result is similar to the evidence from another study conducted in Ethiopia (Kawakatsu *et al.*, 2014; Workineh and Hailu, 2014; Yaya, Bishwajit and Ekholuenetale, 2017). This could be explained by the fact that education has a valuable input in enhancing individuals' autonomy and help them develop greater confidence and capability to make decisions about maternal health. Thus, literate husbands seek higher quality health services or inputs that offer better health outcomes for their partners.

6.2.3.1.3. Occupational

Occupational status of women is among the most common factors affecting the utilization of postnatal care services. It was found that farmers, merchants and other professionals were 2.4 times more likely to use PNC services compared to housewives/maids. Compared to housewives/maids, being a government or private employee was found to have significantly reduced the odd of PNC service utilization by 29%. This particular finding is consistent with the finding of (Ramezani Tehrani *et al.*, 2016) which states that employed women, compared to housewives, more frequently received postnatal care . In fact, these women are more likely to receive timely prenatal care services as well.

The current finding shows housewives/maids women have lower percentage of missed opportunity when compared to farmers and merchants women as the results of with a study done (Ramezani Tehrani *et al.*, 2016), which states that employed women, compared to housewives, more frequently received postnatal care.

In addition, the finding also indicates that husbands employed in organizations were 3.6 times more likely to use skilled PNC services than husbands who were petty traders and daily laborers. This finding is consistent with study done in Ethiopia that indicates husbands working in government or private organizations were 4.7 times more likely seek PNC services utilization when they were compared to men working on petty trades and unskilled jobs (Dereje 2017). Similarly, with respect to occupation, men who let their spouses use maternal health services least were agricultural-employees and unemployed men (FMoH 2011).

6.2.3.1.4. Household Income

This study has found that economic status of the family has a positive and significant influence on the use of postnatal care services. Families whose average monthly income was greater than 2,500 ETB were 2.2 times more likely to seek postnatal services as opposed to families whose average monthly income was less than 2,500 ETB. This result is in agreement with a study that revealed family income is among the factors related to the use of prenatal care services (Ramezani Tehrani *et al.*, 2016).

6.2.3.1.5. Community Based Health Insurance

Women enrolled in CBHI were 2.2 times more likely to seek delivery services than not enrolled in the insurance. This finding is in line with a finding of a study carried out in Kenya that demonstrated insurance initiatives have significantly increased facility-based deliveries, including caesarean section, and treatment of delivery complications in Kenya (Bellows *et al.*, 2013: 135).

6.2.3.1.6. Age at first pregnancy

Age at first pregnancy is found to be another factor that determined pregnant women's PNC seeking behavior. Women whose first pregnancy was under the age of 25 years were 1.2 times less likely to seek postnatal services than women whose first pregnancy was at age of 25 years or older. However, the study conducted by Shiferaw *et al*. (2013)contradicting that maternal age was not associated with the use of all the three maternal health services.

6.2.3.1.7. Autonomy

As to the final decision maker on PNC service utilization, a mother who has as equal decision power as their partners utilized PNC services 3.5 times more likely than women whose healthcare decision is made by others. This evidence is in line with a similar study conducted in Ethiopia (Workineh and Hailu, 2014). This can be due to the autonomy of the women to take any action at any time on their health related issues.

6.2.3.2.Interpersonal or family level factors

6.2.3.2.1. Direct and indirect costs of services

This study has shown that women prefer home delivery because they do not want to incur a lot of direct and indirect costs by going to hospital for an MHC services. Duos to cultural and traditional reasons, men in the society have higher social position in the household. Men with better education and highly paid jobs have power over decision on maternal health services. This finding is similar to the results of studies carried out in Ethiopia and Gambia (Lowe, 2017; Mesele, 2018).

6.2.3.2.2. Women's employment

Women's employment has been found to be a factor that determines mothers' utilization of MHC facilities. Accordingly, women who are employed can decide by themselves or in consultation with their husbands whether to use maternal health services or not. This finding is similar to the result of a study done in India (Allendorf, 2016; Shimpuku *et al.*, 2017).

6.2.3.2.3. Family Size

Factor found to be significantly affecting the use of postnatal care services was the number of children a woman/household has. A household that had less than five children was 1.5 times more chances of seeking postnatal services as compared to a household with five or more children. This finding is in agreement with evidence from a study conducted among women's (Workineh and Hailu, 2014). The probability of utilizing postnatal care decreased in mothers who bore five or more children than primigravida.

6.2.3.2.4. Parity

Regarding parity, women who had given birth to fewer than 3 children were 6.7 times more likely to seek postnatal services as compared with women who had more than 3 births. This finding is consistent with the finding that women with more than five

deliveries were nearly 4 times more likely to experience an adverse outcome compared with women with one delivery (Asundep *et al.*, 2013). Similarly, women who were to give their 4th or 5th births were 78% less likely to give birth at health facility as compared to those who were to give birth for the first time (Dansereau *et al.*, 2016).

6.2.3.2.5. Intention of pregnancy

Unintended pregnancy is also associated with prenatal care. Women who planned or intended their last pregnancy were found to be 1.72 times less likely to seek postnatal services than women who did not plan their last pregnancy. That women with unintended pregnancies start prenatal care later and receive fewer prenatal care visits, compared to others (Ramezani Tehrani *et al.*, 2016) is in line with this finding of the present study.

6.2.3.2.6. Intra-household Violence

Women who have been subjected to violence by their partners were 5.6 times more likely to seek postnatal services than their counterparts. Again, this finding is consistent with the finding by (Silverman and Raj, 2014) that revealed abused women report unintended pregnancy and give birth as an adolescent as opposed to women who have not experienced any violence.

6.2.3.3.Community and social level factors

6.2.3.3.1. Preferences of maternal healthcare services

Women's traditional beliefs about pregnancy and childbirth are one of the social factors that determine mothers' choice and utilization of MHC services. That is to say mothers-in-law and traditional birth attendants believe that pregnancy and childbirth is a normal process not requiring special care. They had neither experience of professional care nor a tradition of going to a hospital for delivery. Therefore, mothers-in-law do not encourage their expectant daughters-in-law to go to hospital for maternal care services. This finding is similar to results of studies done in Ghana, Nepal and Zambia (Kaphle *et al.*, 2013; Sialubanje *et al.*, 2015; Aziato and Omenyo, 2018). Nevertheless, safety in case of complications during pregnancy and delivery is found to be a key reason for women to prefer MHC at health facilities. In fact, this finding is consistent with the results of studies conducted in Bangladesh, Malawi and Zambia (Kumbani *et al.*, 2013; Sialubanje *et al.*, 2015; Sarker *et al.*, 2016).

Muslims were found to have low maternal healthcare service seeking behavior as compared to Christians. Christian women were 3.2 times more likely to seek postnatal care than Muslim women. The finding of this study also suggests that religion is associated with postnatal service seeking behaviors of women. This finding is consistent with studies done in Ethiopia (Kifle *et al.*, 2017). The possible explanation could be Muslim women in the study area believed that their naked body could only be seen by their husbands. This is also demonstrated with the qualitative data in which religion was an influencing socio-cultural factor of maternal healthcare service seeking behavior. Generally, Muslim women prefer female traditional birth attendants than skilled healthcare providers (Kifle *et al.*, 2017).

In connection with FGM, women who have no history of FGM were 2.1 times more likely to seek PNC as compared to those women with history of FGM. One study which is in line with this finding has shown that women with FGM are significantly more at risk of postpartum hemorrhage and extended maternal hospital stay (Egenberg *et al.*, 2017).

In addition to women's religion, women's maternal health services utilization is also affected by the ethnicity to which they belonged. Oromo women, it was found, were 1.2 more times likely to get postnatal care. In contrast to this finding, another study's finding shows that there was no significant association between ethnicity and the use of postnatal care service (Shiferaw *et al.*, 2013).

6.2.3.3.2. Women's expectation of maternal healthcare services

Women's expectations of the speed and quality services at health facilities and their expectations of behaviour of medical personnel are social determinants of preference and use of MHC services. Thus, women who have positive expectation of quality services at health facilities and of the behaviour of medical personnel prefer to deliver at a hospital. The finding is similar to the studies done in Kenya, Nigeria and South Sudan (Tsawe and Susuman, 2014; Lang and Mwanri, 2015; Okonofua *et al.*, 2017).

6.2.3.3.3. Planned use of maternal healthcare services

The study has indicated that timely access to services was a problem even if women had planned SBA's use during delivery. This finding is similar to the findings of studies done in Ethiopia and Ghana (Cofie *et al.*, 2015; Wilunda *et al.*, 2015)

6.2.3.3.4. Relatives influence on maternal healthcare services

Owing to social factors, pregnant women's non-use of MHC services has been influenced by the presence of extended family members, household affairs, mothers-in-law and daughters-in-law. This finding is similar to a finding of a study done in Malawi (Scott and Vera-hernandez, no date; Mokomane, 2012)

This study has revealed that polygamy is a factor associated with women's PNC utilization. In connection with this, it was found that women who are not in polygamous marriage were 16% times more likely to seek PNC services than women in polygamous marriage. This finding shows that women need to work exceedingly hard to save money for their medical and other related expenses like transport fares which are unlikely to be provided by their polygamous husbands Yet, other studies show that giving women decision-making powers by their spouses could raise the rates of delivery at healthcare facilities (Lowe, Chen and Huang, 2016: 6).

Use of postnatal care services is found to be significantly affected by social support provided to pregnant women by family members. Thus, women with husband's support were 6.18 times more likely to seek PNC services as opposed to their counterparts. Also, as revealed by the literature review, women who are not supported by friends and family members are less likely to receive prenatal care services (Ramezani Tehrani *et al.*, 2016).

6.2.3.3.5. Parity

According to women who participated in FGD, they used maternal health services due to feeling of weakness even if they had no initial plan for SBA use. Women who have delivered two or more times prefer to deliver at home (Kjerulff *et al.*, 2013; Sarker *et al.*, 2016). However, one Haramaya, women commented on her perception of maternal healthcare use and said that pregnancy is a natural process with no need for special care during that period. The finding consistent with the study done on (Srivastava *et al.*, 2015; Aborigo *et al.*, 2018).

6.2.3.3.6. Women's pregnancy history and maternal healthcare services

The present study finds that women's health status is another key factor that influences their use of MHC services. Accordingly, women do not plan to use SBA services if everything goes normal during pregnancy; nevertheless, they decide to go

to a health facility if they feel unwell during pregnancy and when the baby due draws nearer and nearer. Thus, this finding similar to the study done in southern Malawi (Kumbani *et al.*, 2013).

6.2.3.3.7. Privacy and confidentiality matters on maternal healthcare services

Women's fear of their privacy invaded and their confidential information not kept are barriers to their use of maternal healthcare services. The finding of this study is consistent with this study by (Mannava *et al.*, 2015; Srivastava *et al.*, 2015). To increase women's regular use MHC services, relevant information about how their privacy is kept should be given to women by health workers and medical staff at health facilities.

6.2.3.3.8. Family living arrangements

Mothers' use of MHC services has also been found to be determined by family types. In other words, mothers in a nuclear family type and who have parity with their spouses can decide whether to they should use MHC services or not. Women in an extended family type and who do not parity with their spouses over household issues can hardly make decisions by themselves to use MHC services or not because in a patriarchal society decisions about family members are made by fathers. Similarly, pregnant women's use of MHC services is influenced by mothers-in-law as mothers-in-law have social power to make decisions for/against her daughter's-in-law preferences to use MHC. The finding of this study is consistent with the study done by (Shahnazaryan, Hovhannisyan and Grigoryan, 2017).

6.2.3.3.9. Knowledge about the maternal healthcare services

Women with knowledge about/of maternal healthcare services use them more often use MHC than women without information or knowledge of MHC as a result of their being culturally and traditionally dominated. This finding is consistent with findings of studies done in Ethiopia and Zimbabwe (Dodzo and Mhloyi, 2017; Mezmur *et al.*, 2017; Aborigo *et al.*, 2018).

6.2.3.4. Organizational and health system level factors

6.2.3.4. 1. Choice and access of maternal healthcare services

This study has found that pregnant women with protected drinking water and latrines in their compounds were 1.14 time more likely to seek delivery services than women without these facilities. Several reasons are articulated in the scientific literature that may contribute to this relationship. Better water quality and sanitation help women to

reduce physical burdens of carrying water, which translates into improvement in the expectant mothers' health. This finding is consistent with a study that estimated the odds ratio that water access is significantly inversely associated with MMR is 0.58 in the adjusted analysis (Cheng *et al.*, 2012).

Physical accessibility is one of the most important variables in health service utilization. Women who have access to healthcare services were 47% times more likely to seek PNC services than those who have no access to healthcare services. The study shows that reducing maternal deaths, especially in rural areas of Ethiopia, requires not just a provision of medical care but an engagement of the whole society as well. A community leader at Chelenko considered access to and utilization of maternal health services have been increasing recently with expansion of education and improved channels of communication and increased awareness. This finding is consistent with other studies carried out in Ethiopia and South Africa (Ayele, Belayihun, Teji, & Ayana, 2014; Bayu, Fisseha, Mulat, Yitayih, & Wolday, 2015; Tsawe & Susuman, 2014). Another participant who was also a community leader asserted that operational local health posts with qualified nurses make it easier and cheaper for a woman to access services easily in an emergency and at night were consistent with the study done on (Academy *et al.*, 2011; Kalasa and Jacobson, 2012: 10).

Again, this study finds that barriers to maternity health service utilization are distance, shortage of skilled birth attendants and lack of transport. In other words, the major factors which hinder women from accessing maternal health services are distance, shortage of skilled birth attendants and lack of transport. This finding is also consistent with studies done in Malawi and Nepal (Yr *et al.*, 2010; Kambala *et al.*, 2011). Similarly, the status public hospitals have been found to affect women's choice and use of maternal healthcare services. This is to say that a hospital's being always crowded, not having enough beds in the wards for women to sleep after childbirth and not having a running water and electricity are common problems in the hospital that affect women's choice and use of it. This finding is similar to studies done in India and South Africa (Bajpai, 2014; Hastings-tolsma, Nolte and Temane, 2018). In connection with this, one husband at Grawa reported that the costs of transportation affect utilization of facility delivery. As a result of this, women prefer

home delivery to hospital delivery because delivery at hospital incurs heavy costs of transportation, food, accommodation and other related matters. This finding is similar to studies done in Bangladesh and Sierra Leone (Sarker *et al.*, 2016; Treacy, Bolkan and Sagbakken, 2018).

It has been found that choice and use of hospital delivery are determined by the health condition of some pregnant women. That is these women prefer hospital delivery if only they did they feel unwell and the baby due came closer and closer. This finding is again consistent with a study done in northern Greece (Sapountzi-krepia *et al.*, 2010). Similarly, use and choice of hospital delivery are determined by pregnant women's awareness and the availability of safe delivery facilities in their residence. In other words, these women would like to get safer delivery facilities in the village rather than going to places where they could get safe delivery services were similar to a study done by (Sarker *et al.*, 2016; Treacy, Bolkan and Sagbakken, 2018)

According to the finding of the present study, one community leader indicated that fathers and mothers-in-law in the study community have greater role in making final decisions over delivery matters. Some other findings consistent with this study are the ones done in rural Nepal and South Africa (Lewis, Lee and Simkhada, 2015; Nesane, Maputle and Shilubane, 2016). Likewise, another participant and a community leader at Grawa believed that a health post with qualified nurses or midwives for maternal healthcare services in the village would be preferable and accessible. This finding is similar to the finding of a study done by (Degni, Amara and Klemetti, 2015)

What is found from the interviewees with women is that choice and utilization of hospital delivery are affected by pregnant women's fear and sense of shame. Most women in the study area were unwilling to go to hospital due to fear and a sense of shame. For this women, it is shameful to show their body parts to others, and it is embarrassing for them during labour their body parts be touched by a doctor. This is result is consistent with the study by (Van Busum, 2014). In addition, pregnant women's choice and utilization of hospital delivery are influenced by the women's perceived fear of their privacy being invaded after delivery at the hospital where its

rooms were open with no curtains (Lazzerini *et al.*, 2014). On the other hand, it is found that pregnant women preferred to go to hospital for more safety in case of complications during delivery. This is in line with the findings by (Anastasi *et al.*, 2015; Cofie *et al.*, 2015; Byrne *et al.*, 2016; Sarker *et al.*, 2016; Karanja *et al.*, 2018; Mulenga *et al.*, 2018).

Finally, the study has revealed that poor road condition, problems of transportation, distance, and cost of going to a hospital in town, and women's residence are found to be determinants of accessing appropriate maternity care during pregnancy and delivery is similar to the study done by (Vallely *et al.*, 2013; Atuoye *et al.*, 2015; Khatri *et al.*, 2017; Treacy, Bolkan and Sagbakken, 2018)

6.2.3.4.2. Delivery skill of healthcare provider

What has emerged from the discussion is that mothers' perception of the skill of health providers affects the preference and use of health facilities for delivery.Accordingly, expectant mothers would not like to go to hospital because they feel that health service providers lack the skill required for assisting a woman in giving birth. The result of this study is also consistent with studies done in Ethiopia and Bangladesh (Roro *et al.*, 2014; Sarker *et al.*, 2016). Similarly, the study has revealed that a hope for faster services at a hospital, good behavior and politeness of health personnel in the hospital are found to be factors influencing choice and use of hospital delivery by the expectant women. Furthermore, mothers' prior negative experience of hospital delivery affects an expectant mother's preference and use of hospital services as these mothers advice the woman not to go for a hospital delivery. This finding is again consistent with the studies done in Ethiopia and Malawi (Kumbani *et al.*, 2013; Roro *et al.*, 2014). Moreover, use of maternal healthcare services is affected by women's belief that once the genitalia are cut by medical personnel, it remains open and be a problem forever. This particular finding is similar to the finding of a study done by (Klabbers, 2016; Jiang *et al.*, 2017).

6.2.3.4.3. Quality services of maternal healthcare

Besides choice and access of maternal healthcare services and delivery skills of healthcare providers, one more health system factor found to influence mothers' choice and utilization of hospital delivery is the quality of services provided at

maternal healthcare centers. More specifically, the study has found that because some women do not feel comfortable sleeping on a bed in a maternity ward, they would prefer home delivery to hospital delivery. This finding is consistent with the findings of studies carried out in Kenya, Tanzania and Malawi by (Afulani, Kirumbi, & Lyndon, 2017; Kumbani et al., 2013; Pfeiffer & Mwaipopo, 2015), respectively.

6.2.3.4.4. Infrastructure

What is more, the study has found that limited number of health centres, poor road condition, problems of transportation, distance between home and health centre, and cost of going to the hospital in town make use of maternal health services difficult for the community in the study area. This finding is consistent with the studies done in Ghana, Kenya and Sierra Leone(Starkey and Hine, 2014; Atuoye *et al.*, 2015; Essendi *et al.*, 2015; Treacy, Bolkan and Sagbakken, 2018), respectively.

6.2.3.4.5. Time of labour and delivery season

Use of maternal healthcare services has been found to be influenced by factors such as time of labour and delivery season. Expectant mothers whose labour commences at night and during a rainy season would prefer to have a home delivery to a hospital one because they can hardly find transport to arrive at a hospital in at night and during a rainy season. This finding agrees with the findings of studies done in Ghana and Uganda (Essendi, Mills and Fotso, 2010; Afari *et al.*, 2014; Wilunda *et al.*, 2014; Kironji *et al.*, 2018).

6.2.3.4.6. Transportation

An additional factor that has limited use of maternal health services by women in the study area is the absence of transport from home to health facilities. As there is no transport, most expectant mothers in the villages do not go to towns for MHC services. In addition to lack of transportation, shortage of skilled birth attendants, long distance to a hospital, lack of money are also main barriers to utilization of maternal healthcare services. This finding is similar to the studies done in Gambia, Sierra Leone, Malawi and South Sudan (Kambala *et al.*, 2011; Lerberg *et al.*, 2015; Wilunda *et al.*, 2017; Treacy, Bolkan and Sagbakken, 2018). Moreover, some women in towns would prefer home delivery to hospital delivery because they cannot get a timely ambulance service. This is consistent with the study done in Indonesia (Starkey and Hine, 2014; Sarker *et al.*, 2016; Treacy, Bolkan and Sagbakken, 2018)

6.2.3.4.7. Distance of health facility

As pointed out above, long distance between home and health facilities influences use of MHC services by women. Therefore, setting up MHC facilities at a local level could increase use of SBAs by mothers as it could reduce the time taken to travel long distances and arrive at a facility. In so doing, it is likely to reduce maternal mortality. This finding is consistent with the study done in Western Nepal (Onta *et al.*, 2014).

6.2.3.4.8. Lack of maternal healthcare services information

One more factor that is found to have influenced mothers' use of MHC services is lack information or knowledge about availability of MHC services in their localities. Due to social and cultural beliefs, first time mothers in particular do not have any information about provision of MHC services, and they feel embarrassed about their pregnancy. Therefore, they do not openly discuss pregnancy related issues. This finding is similar to the findings of studies done in Ghana, Kenya and Malawi (Pell *et al.*, 2013; Al-Ateeq and Al-Rusaiess, 2015; Aziato, Odai and Omenyo, 2016).

6.3. CONCLUSION

This chapter presents a discussion of the socio-cultural determinants and missed opportunity maternal healthcare services. The next chapter presents on the conclusion, recommendation, contribution and limitation of maternal health care services.

CHAPTER SEVEN

CONCLUSIONS AND RECOMMENDATIONS

7.1 INTRODUCTION

The previous chapter addressed aspects of the research discussion. This chapter presents the conclusions, recommendations, contribution and limitation of the findings that derived from both the qualitative and quantitative data gathered from participants.

7.2 CONCLUSION

In conclusion, this study identifies the important predictors of maternal healthcare in Ethiopia using Logistic regression model. The study revealed that socio-cultural, socio-economic and demographic variables have significant effects on the utilization of maternal healthcare in Ethiopia. Factors influencing maternal health services utilization operate at various public policy level factors, organizational and health system level factors, community and social level factors, interpersonal or family level factors and individual level factors. While monthly income of household, family size, enrolment into CBHI, parity, intention of last pregnancy, history of FGM, source of drinking water, maternal healthcare access and satisfaction are consistently strong predictors of all the maternal health services considered in this study, other determinants of service utilization generally vary in magnitude and level of significance by the type of maternal service.

The associated factors on the maternal health care are: age of women, educational status, occupation of women, ethnicity, monthly income of household, family size, enrolment into CBHI, parity, intention of last pregnancy, history of FGM, polygamy, autonomy of women, violence, husband's education, occupation and support, material of house type, drinking water, access and client satisfaction. The associated factors of delivery are residence area, age category, education, family income, family size, enrolment into community health insurance, age at first pregnancy, parity, intention of last pregnancy, history of FGM, polygamy, autonomy, household violence, husband education, support and occupation, types of house material, source of drinking water, latrine facility, healthcare access and satisfaction

rate. Finally, the associated factors affecting postnatal care are: occupation, religion, ethnicity, family income, family size, enrolment into community health insurance, age at first pregnancy, parity, intention of last pregnancy, history of FGM, polygamy, autonomy, household violence, husband's education, support and occupation, source of drinking water, health access and healthcare satisfaction rate were the most important determinants of the three maternal healthcare services in the country.

7.3 RECOMMENDATIONS

To be optimally effective, interventions to promote maternal health service utilization need to take these findings into consideration. In other words, they should target the underlying individual, household, community and state level factors that are relevant to each type of maternal health service.

In the light of the above conclusions, the study particularly would recommend that effort should be made for providing better access to education, family planning, community based health insurance, health facilities and creating job opportunity for mothers and discourage traditional practice like women FGM, polygamy and teenage marriage so that the gap in maternal healthcare services will be bridged. The listed findings will be implemented by different stakeholders. The responsible bodies for the implementation of these recommendations are the following:

7.3.1 Recommendation with regard to Ethiopia Government

To strengthen Ethiopia's maternal healthcare services framework and compliance with its obligations, the government should take into considerations what follow:

- The government should ensure free services to all maternal and child healthcare related services and amend the constitution of FDRE in Article 90 sub-article 1 that states 'to the extent the country's resources permit, policies shall aim to provide all Ethiopians access to public health and education, clean water, housing, food and social security'; specifically to 'the country's provide to all Ethiopians access to free maternal healthcare services with full of maternal health service package.
- In developing programmes to prevent maternal mortality and promote maternal health, the government should pay particular attention to the need to develop,

resource and implement programmes to address the underlying determinants of health that promote safe pregnancies and deliveries.

- It should continue to encourage cooperation amongst different ministries within the government to ensure that women and girls access maternal health care services early, and for such inter-ministerial forums to report specifically on inter-departmental plans to increase women's and girls' timely access to maternal health care services. Ministries, including the Ministry of Health, Ministry of Education, Ministry of Women and Children Affairs, Ministry of Labour and Social Affairs and Ministry of Transport should collaborate and cooperate to ensure that all health-related policies are designed and implemented in an efficient manner.
- The government need to increase awareness about patients' rights, particularly the right to informed consent, amongst potential patients and healthcare workers. Measures should include ensuring this information is visible in all health facilities in all relevant languages, and is expressly included as a part of the pre-test counselling process in the Guidelines for Maternity Care in Ethiopia.
- The government should ensure that everyone knows about their sexual and reproductive rights, and that men and boys support women and girls in realizing these rights. More specifically, the government should provide education related to sexual and reproductive rights, including the right to bodily autonomy, and support the ability of women and girls to negotiate safe sexual practices by strengthening awareness-raising and education targeted at women, girls, men and boys on access to condoms and safe, effective, affordable and acceptable family planning services, including the full range of contraceptive services.
- The government should also ensure that women's and girls' access to safe, effective, affordable and acceptable methods of family planning, including the full range of contraceptive services.
- Again, it should ensure that women and girls are able to access their right to education, including by ensuring that mechanisms and services are in place to make it possible for pregnant girls and young mothers to continue their education.

Finally, the government should take urgent steps to reduce the prevalence of gender-based violence, including by addressing the recommendation by the Committee against Torture to "adopt all necessary measures to prevent, combat and punish violence against women, polygamy marriage, FGM and child

marriage undertake research into the root causes of the high incidence of rape and sexual violence establish awareness raising campaigns; and investigate thoroughly those grave human rights violations."

7.3.2 Recommendation with regard to Ministry of Health

Ethiopia's Ministry of Health should:

- develop and apply cash base incentive programs to remote area health facility and health workers.
- conduct an audit of all health facilities to assess how existing health system infrastructure and practices impact privacy and confidentiality. The audit should adequately consult, and ensure that all service-users, especially women and girls living in poverty are able to participate in its design and implementation.
- collect disaggregated data on women's and girls' access to maternal health care services and develop indicators and benchmarks to measure progress towards ensuring all women and girls have access to early and consistent maternal health care services.
- provide all healthcare workers with regular and on-going training on privacy and confidentiality so they are able to respect patients' rights with particular attention to the ways in which the design of health facilities and specific practices followed by clinics can compromise these rights. This should include training on the human rights of patients, and training to be able to respond sensitively to the specific needs of marginalized groups.
- develop fund and implement programmes, including through radio, pamphlets and posters, to educate the population about the importance of early and continuous maternal healthcare services and the associated health benefits. These programmes should be developed and implemented in a way that ensures the inclusion of marginalized communities.
- raise awareness of and capacity for screening by healthcare workers for the risks of violence, perinatal depression and other manifestations of inequality and discrimination faced by pregnant women and girls, including providing on-going professional training. We recognises that successful implementation of such a policy will rely on support from and collaboration with other government departments, and calls on the Department of Health to demonstrate leadership in ensuring this initiative succeeds.

- ensure that all young people can access youth-friendly sexual and reproductive health information and services, with the full respect of their right to privacy and confidentiality.
- urgently address the fact that infrastructural shortages in the healthcare system are resulting in barriers in accessing health facilities for women and girls, including by increasing the number of obstetric ambulances and Outreach programs conducting maternal healthcare services check-ups.
- establish and apply national standards on staffing norms, standards and training requirements for all cadres of healthcare workers.
- in collaboration with other government departments and partners, investigate and establish measures to ensure access to safe and affordable transport to all maternal healthcare services for pregnant women and girls.

- establish and capacitate the Office of Health Standards Compliance and Ombudsperson and promote knowledge among patients regarding the complaints process and duty of the Ombudsperson.

7.3.3 Recommendation with regard to Ministry of Women, Youth and Children Affairs

This Ministry should also:

- urgently develop protocol of women's army and model family to address the information and knowledge of maternal healthcare service to strengthen grass-root level women's.
- empower, create job opportunity and access income generating activities to women.

7.3.4 Recommendation with regard to Ministry of Transport

This Ministry should also:

- should urgently address the lack of safe, reliable, affordable, convenient and adequate transport, particularly for marginalized communities at national, provincial and municipal levels, including through subsidized or free transport, patient grants to cover transport costs, improving road infrastructure, and improved transport options, working with other government departments and agencies as necessary.

7.3.5 Recommendation with regard to Ministry of Education

This Ministry should also:

- should ensure that all young people, both in school and out of school, can access age- appropriate, evidence-based comprehensive sexuality education. Curricula should be reviewed to ensure that they include information on family planning and contraceptives, the implications of early pregnancy for individuals' health and lives and treatment of sexually transmitted infections.

7.3.6 Recommendation with regard to Ministry of Labour and Social Affairs

This Ministry should also:

- should consider extending the system of child support grants to include the period of pregnancy, to enable pregnant women and girls to cope with the increased financial pressure of pregnancy, such as possible financial abandonment and payment for transport to antenatal clinics and hospitals.

7.3.7 Recommendation with regard to Ministry of HRC

This Ministry should also:

- need to investigate the impact of transport barriers to maternal health services for women and girls living in rural or disadvantaged communities in Ethiopia.

7.4. CONTRIBUTIONS OF THE STUDY

The current findings have important contributions for maternal health policy in Ethiopia. Although this study was not designed to evaluate maternal morbidity or mortality, the low rate of utilization of skilled birth attendants and emergency obstetric care services revealed in the results are far lower than national estimates. These important findings, however, highlight the significant marginalization and vulnerability of women living in poor, rural areas of the country.

Beyond strengthening maternal health services that will mostly benefit complicated pregnancies, further prioritizing maternal health through prevention programs and addressing underlying social determinants could have a profound impact on the health and well-being of mothers and decrease their overall vulnerability to any complications that may arise. Maternal health is associated with poor maternal

health outcomes, including early pregnancy and reduced maternal survival rate. Poor early pregnancy can have lifelong, population wide health implications, increasing the risk of maternal morbidity and mortality as well as chronic gynecological diseases, hindering the long-term social and economic development of vulnerable communities, and locking populations in a vicious cycle of poverty and poor health.

Maternal mortality is the worst rate in Ethiopia, sub-Sahara Africa and the third worst worldwide. Raising awareness of risk factors for poor maternal healthcare and the importance of promoting reproductive health programs at a community level could positively affect uptake of practices that are known to improve maternal health outcomes.

This study adds to the body of knowledge, particularly in its application to pregnant women in the poor rural neighborhoods.

- The study has generated some pertinent questions regarding maternal health, which registered a new insight and direction to the body of literature. Such as;
  - What social factors precipitate medical risk factors that affect maternal health?
  - How does role conflict and working conditions influence maternal health complications?
- The study revealed the maternal health circumstances in rural centre, and this enlightened the reader contrary to the expectation that all is rosy in rural health care services system.
- The study presented prospects for fundamental social, institutional and emotional support benefits for pregnant women. It revealed those unseen difficulties that women experience during pregnancy.
- The study has also brought to the fore the connection between health and level of development and challenge the government on development issues.
- The influences of biomedical model of health in bridging the gap in maternal health have been identified. Quick Emergency Obstetrics Care service intervention is very important to reduction in maternal mortality rate.

- Finally, the study has provided data on the socio-cultural context of maternal health challenges in East Hararghe, Oromia State and in Ethiopia as a whole. This brought to the fore the intrigue influence of neglected seemingly trivial factors that affect the health of the women which could be used for program intervention.

7.5. LIMITATIONS OF THE STUDY

Despite the fact that the necessary endeavors were made to minimize or avoid the possible shortcomings of this study, the result should be interpreted in the light of the following unavoidable limitations. This study utilized triangulation study design which made the findings impossible to establish causal relationship between the outcome and exposure variables.

Moreover, the source of the data for this study was based on the self-report of respondents, and provided no validation of obtained information with any objective source such as health facility cards. However, it is logical to assume that biases are less likely as respondents were well-informed about the importance of giving accurate responses and were also assured of the confidentiality of their responses. Finally, recall bias was more likely since women were asked for events which have already happened within the past from now up to five years prior to this study despite the consideration of recent births.

7.6. CONCLUDING REMARKS

In conclusion, patriarchy still influences all aspects of social life and relationships particularly in seeking maternal health services by the women folks in Ethiopia. There are various socio-cultural underpinnings of the high maternal mortality in East Hararghe, Oromia, Ethiopia. The most important among which are maternal illiteracy, traditional belief systems and behavior about diseases, dominance of the patriarchal family system and the subsequent low status of women in the region. All these continue to add value to socio-cultural practices in maternal health and combined with early marriage and female genital mutilation contributes to the sustained high maternal death among the dominant Muslim women groups in East Hararghe. To confound the situation, growing poverty due to lack of access to employment opportunities beyond unpaid agricultural labor at family farms and

limited roles in decision making about women's own healthcare encourage the utilization of traditional birth attendant in eastern part of Ethiopia. Hence, in order to reduce the high maternal mortality rates more emphasis should be placed on devising ways that can educate the women and discourage them from resorting to the traditional socio-cultural practices instead of increasing modern facilities that are grossly underutilized.

Bibliography

Abdulcadir, J., Rodriguez, M. I. and Say, L. 2014 . Research gaps in the care of women with female genital mutilation an analysis : 294–303. doi: 10.1111/1471-0528.13217.

Abdurashid, N. *et al.*2018 . Level of Awareness on Danger Signs During Pregnancy and Associated Factors among Pregnant Mothers : Dire Dawa Administrative Public Clinics in Mother and Child Health. 15(1) : 1–12. doi: 10.4172/2090-7214.1000290.

Abera, M., G/mariam, A. and Belachew, T. 2011Predictors of safe delivery service utilization in Arsi Zone, South-East Ethiopia. *Ethiop J Health Sci. Special Issue*: 21.

Aborigo, R. A. *et al.*2018 . Male involvement in maternal health : perspectives of opinion leaders. BMC Pregnancy and Childbirth : 1–10. doi: 10.1186/s12884-017-1641-9.

Academy, N. *et al.*2011.*The Future of Nursing : Leading Change , Advancing Health Committee on the Robert Wood Johnson Foundation Initiative on the Future of Nursing at the Institute of Medicine : Institute of Medicine*.

Acharya, D. *et al.*2015 . Impact of mass media on the utilization of antenatal care services among women of rural community in Nepal. *BMC Research Notes*. BioMed Central : 4–9. doi: 10.1186/s13104-015-1312-8.

Acharya, D. R. *et al.*2010 . Women's autonomy in householddecision-making: a demographic study in Nepal.*Reproductive Health*. 7(1) : 15–26. doi: 10.1186/1742-4755-7-15.

Adedini, S. A. *et al.* 2015. Ethnic differentials in under-five mortality in Nigeria, *Ethnicity and Health*. Taylor & Francis, 20(2) : 145–162. doi: 10.1080/13557858.2014.890599.

Adedokun, S. T. *et al.*2017 . Contextual factors associated with health care service utilization for children with acute childhood illnesses in Nigeria.*PLoS ONE*. 12(3) : 1–14. doi: 10.1371/journal.pone.0173578.

Adekanmbi, V. T. *et al.*2017. Predictors of differences in health services utilization for children in Nigerian communities.*Preventive Medicine*. The Authors, 96 : 67–72. doi: 10.1016/j.ypmed.2016.12.035.

Adewuyi, E. O. *et al.*2018. Prevalence and factors associated with underutilization of antenatal care services in Nigeria. A comparative study of rural and urban residences based on the 2013 Nigeria demographic and health survey : 1–21.

Adjei, C. A. 2015 . Factors influencing uptake of institutional delivery service by skilled birth attendant's in Ghana : review of literature factors influencing uptake of institutional delivery service by skilled birth attendant 's in Ghana : review of literature by char', (June). doi: 10.13140/RG.2.1.5155.8562.

Afari, H. *et al.* 2014. Quality improvement in emergency obstetric referrals : qualitative study of provider perspectives in Assin North district . Ghana. doi: 10.1136/bmjopen-2014-005052.

Afulani, P. A., Kirumbi, L. and Lyndon, A. 2017. What makes or mars the facility-based childbirth experience: Thematic analysis of women's childbirth experiences in western Kenya Prof. Suellen Miller', *Reproductive Health*. Reproductive Health, 14(1) : 1–13. doi: 10.1186/s12978-017-0446-7.

AIR . 2012 .Professional File, (127).

Akowuah, J. A., Agyei-baffour, P. and Awunyo-vitor, D. 2018. Determinants of Antenatal Healthcare Utilisation by Pregnant Women in Third Trimester in Peri-Urban: Ghana, 2018(2000).

Akunga, D, Menya, D & Kabue, M. 2014. Determinants of Postnatal Care Use in Kenya.*African Population Studies Journal*. 28(3). doi: http://dx.doi.org/10.11564/28-3-638.

Al-Ateeq, M. A. and Al-Rusaiess, A. A. 2015. Health education during antenatal care: The need for more.*International Journal of Women's Health.* 7 : 239–242. doi: 10.2147/IJWH.S75164.

Al-Busaidi, Z. Q. 2008. 'Qualitative research and its uses in health care, *Sultan Qaboos University Medical Journal*. 8(1):11–19. doi: 10.1177/1524839910363537.Appraising.

Alberta. 2016. Policy Development Framework.

Albloushi, M. 2016. Qulitative Health Research Conference in *International Journal of Qualitative Methods* : 1–23. doi: 10.1177/1609406915625573.

Alkema, L. *et al.*2015. Articles Global , regional , and national levels and trends in maternal mortality between 1990 and 2015 , with scenario-based projections to 2030 : a systematic analysis by the UN Maternal Mortality Estimation Inter-Agency Group', 6736(15): 1–13.

Allegri, M. *et al.*2011. Determinants of utilisation of maternal care services after the reduction of user fees: A case study from rural Burkina Faso. *Health Policy*. Elsevier Ireland Ltd 99(3): 210–218. doi: 10.1016/j.healthpol.2010.10.010.

Allendorf, K. 2016. HHS Public Access, 41(4): 263–276.

Amegbor, P. M. 2014. Health seeking behaviour in asikuma-odoben- brakwa district: a pluralistic health perspective. 1(May): 1–142.

Anand, E. and Singh, J. 2017. Hypertension Stages and Their Associated Risk Factors among Adult Women in India. 25(1): 42–54.

Anastasi, E. *et al.*2015. Losing women along the path to safe motherhood : why is there such a gap between women's use of antenatal care and skilled birth attendance? A mixed methods study in northern Uganda. *BMC Pregnancy and Childbirth*. BMC Pregnancy and Childbirth: 1–15. doi: 10.1186/s12884-015-0695-9.

Anderson, C. 2010. Presenting and evaluating qualitative research. *American Journal of Pharmaceutical Education*. 74(8). doi: 10.5688/aj7408141.

Anderson, J. M. *et al.* 2007. Prevention and Management of Postpartum Hemorrhage. *American Family Physician*, 75(6): 875–882.

Andrew, E. V. W. *et al.*2014. Factors affecting attendance at and timing of formal antenatal care: Results from a qualitative study in Madang, Papua New Guinea, *PLoS ONE*, 9(5). doi: 10.1371/journal.pone.0093025.

Armenakis, A. 2007. Social & Cultural Factors Related to Health Part A : Recognizing the Impact'.

Arthur, E. 2012. Wealth and antenatal care use: Implications for maternal health care utilisation in Ghana', *Health Economics Review*, 2(1): 1–8. doi: 10.1186/2191-1991-2-14.

Asundep, N. N. *et al.*2013. Determinants of access to antenatal care and birth outcomes in Kumasi , Ghana, *Journal of Epidemiology and Global Health*. Ministry of Health, Saudi Arabia, 3(4): 279–288. doi: 10.1016/j.jegh.2013.09.004.

Atkinson, J. A. *et al.*2015. A modelling tool for policy analysis to support the design of efficient and effective policy responses for complex public health problems, *Implement Sci*, 10: 26.

Atuoye, K. N. *et al.*2015Can she make it ? Transportation barriers to accessing maternal and child health care services in rural Ghana.*BMC Health Services Research*. BMC Health Services Research: 1–10. doi: 10.1186/s12913-015-1005-y.

AU. 2017. African union union africaine união africana. (March).

Aubert, J.-E. 2005. Promoting Innovation in Developing Countries: A Conceptual Framework, *World Bank Policy Research Working Paper*. (3554): 37. doi: 10.1596/1813-9450-3554.

Austin, Z. and Sutton, J. 2014. Qualitative research: getting started.*The Canadian journal of hospital pharmacy*, 67(6): 436–40. doi: 10.4212/cjhp.v67i6.1406.

Ayele, D. Z. *et al.*2014. Factors Affecting Utilization of Maternal Health Care Services in Kombolcha District. Eastern Hararghe Zone , Oromia Regional State , :Eastern Ethiopia. 2014(2001).

Aziato, L., Odai, P. N. A. and Omenyo, C. N. 2016. Religious beliefs and practices in pregnancy and labour: An inductive qualitative study among post-partum women in Ghana.*BMC Pregnancy and Childbirth*. 16(1): 1–10. doi: 10.1186/s12884-016-0920-1.

Aziato, L. and Omenyo, C. N. 2018. Initiation of traditional birth attendants and their traditional and spiritual practices during pregnancy and childbirth in Ghana. BMC Pregnancy and Childbirth: 1–10.

Azuh, D., Fayomi, O. and Ajayi, Lady. 2015a. Socio-Cultural Factors of Gender Roles in Women's Healthcare Utilization in Southwest Nigeria:*Open Journal of Social Sciences*. 03(04): 105–117. doi: 10.4236/jss.2015.34013.

Azuh, D., Fayomi, O. and Ajayi, Lady. 2015b. Socio-Cultural Factors of Gender Roles in

Women's Healthcare Utilization in Southwest Nigeria. (April): 105–117.

B. McPake, K. H. 2016. Managing the public–private mix to achieve universal health coverage', *Lancet*, 388(10044): 622–630.

Baatiema, L. *et al.*2016. Community health workers in Ghana: the need for greater policy attention. *BMJ Global Health*. doi: 10.1136/bmjgh-2016-000141.

Babalola, S. O. 2014. Factors associated with use of maternal health services in Haiti : a multilevel analysis. 36(1): 1–9.

Bacp, B. A. for C. and P. 2002. Ethical Framework for Good Practice in Counselling & Psychotherapy.

Baernholdt, M. *et al.* 2013. Quality of Life in Rural and Urban Adults 65 Years and Older: Findings From the National Health and Nutrition Examination Survey. *Journal of Rural Health*. 28(4): 339–347. doi: 10.1111/j.1748-0361.2011.00403.x.Quality.

Bahl, R. and Daelmans, B. 2015. Quality of care for pregnant women and newborns — the WHO vision: 1045–1049. doi: 10.1111/1471-0528.13451.

Bajpai, V. 2014. The Challenges Confronting Public Hospitals in India . Their Origins , and Possible Solutions. 2014.

Bakibinga, P., Mutombo, N. and Mukiira, C. 2015. The Influence of Religion and Ethnicity on Family Planning Approval : A Case for Women in Rural Western. doi: 10.1007/s10943-015-0030-9.

Baral, Y. R. *et al.*2012Maternal health services utilisation in Nepal: Progress in the new millennium? TT -*Health Science Journal*. 6: 618–633.

Baškarada, S. 2014. Qualitative Case Study Guidelines. *Qualitative Report*, 19(40): 1–25. doi: 10.7748/nr2013.05.20.5.28.e327.

Bayeh, E. 2016. Paci fi c Science Review B : Humanities and Social Sciences The role of empowering women and achieving gender equality to the sustainable development of Ethiopia.*Pacific Science Review A: Natural Science and Engineering*. Elsevier Ltd 2(1): 37–42. doi: 10.1016/j.psrb.2016.09.013.

Bayu, H. *et al.*2015a. Missed opportunities for institutional delivery and associated factors among urban resident pregnant women in South Tigray Zone. Ethiopia: a community-based follow-up study: 1:1–8.

Bayu, H. *et al.*2015b. Missed opportunities for institutional delivery and associated factors among urban resident pregnant women in South Tigray Zone. Ethiopia: A community-based follow-up study', *Global Health Action*, 8(1). doi: 10.3402/gha.v8.28082.

Bekele, I. and Yimam, I. 2017. Bekele. 25: 109–128.

Belina, D. *et al.*2018. Assessments of Challenges and Marketing Channels of Skin and Hide in Eastern Ethiopia. *Journal of Veterinary Science & Technology*. 09(01): 1–8. doi: 10.4172/2157-7579.1000510.

Bell, K., Fahmy, E. and Gordon, D. 2016. Quantitative conversations : the importance of developing rapport in standardised interviewing', *Quality & Quantity*. Springer Netherlands:193–212. doi: 10.1007/s11135-014-0144-2.

Bellows, B. *et al.*2013. Increase in facility-based deliveries associated with a maternal health voucher programme in informal settlements in Nairobi , Kenya', (March 2012): 134–142. doi: 10.1093/heapol/czs030.

Berg C, Danel I, M. G. 1996. Guidelines for maternal mortality epidemiological surveillance.*The World Bank*.

Berhan, Y. and Berhan, A.2014. Antenatal care as a means of increasing birth in the health facility and reducing maternal mortality: a systematic review.*Ethiopian journal of health sciences*. 24 Suppl(0 Suppl): 93–104. doi: 10.4314/ejhs.v24i1.9S.

Beyea, S. and Slattery, M. 2006. Evidence-based practice in nursing - A guide to successful implementation. *HCPro Inc.:*1–18.

Birmeta, K., Dibaba, Y. and Woldeyohannes, D. 2013. Determinants of maternal health care utilization in Holeta town, central Ethiopia. *BMC Health Services Research*. doi: 10.1186/1472-6963-13-256.

Bishwajit, G., Sarker, S. and Yaya, S. 2017. Socio-cultural aspects of gender-based violence and its impacts on wome 's health in South Asia [version 1 ; referees : 1 approved with reservations]. (0): 1–10. doi: 10.12688/f1000research.8633.1.

Biza, A. *et al.*2015. Challenges and opportunities for implementing evidence-based antenatal care in Mozambique: A qualitative study.*BMC Pregnancy and Childbirth*. 15(1): 1–10. doi: 10.1186/s12884-015-0625-x.

Boamah, S. A., Amoyaw, J. and Luginaah, I. 2015. Explaining the gap in antenatal care service utilization between younger and older mothers in ghana explaining the gap in antenatal care service utilization between younger. doi: 10.1017/S0021932015000218.

Bolderston, A. 2012. Conducting a research interview.*Journal of Medical Imaging and Radiation Sciences*. Elsevier Inc., 43(1), pp. 66–76. doi: 10.1016/j.jmir.2011.12.002.

Bongaarts, J. 2014. The Proximate Determinants of Fertility in sub-Saharan Africa. 10(3): 511–537.

Bougangue, B. and Ling, H. K. 2017. Male involvement in maternal healthcare through Community- based Health Planning and Services : the views of the men in rural Ghana. BMC Public Health: 1–10. doi: 10.1186/s12889-017-4680-2.

Bowman, K. G. 2005. A Research Synthesis Overview. 1967. doi: 10.1177/0894318407299575.

Bradshaw, C., Atkinson, S. and Doody, O. 2017. Employing a Qualitative Description Approach in Health Care Research.*Global Qualitative Nursing Research*, 4: 233339361774228. doi: 10.1177/2333393617742282.

Braveman, P. and Gottlieb, L. 2014. The Social Determinants of Health: It's Time to Consider the Causes of the Causes.*Public Health Reports*, 129(Suppl 2): 19–31.

Brownson, R. C., Chriqui, J. F. and Stamatakis, K. A. 2009. Understanding evidence-based public health policy. *American Journal of Public Health*, 99(9):1576–1583. doi: 10.2105/AJPH.2008.156224.

Bryman, A. 2004. Qualitative research on leadership : A critical but appreciative review. 15: 729–769. doi: 10.1016/j.leaqua.2004.09.007.

Bucher, S. *et al.* 2016. Self-reported practices among traditional birth attendants surveyed in western Kenya: A descriptive study. *BMC Pregnancy and Childbirth*. doi: 10.1186/s12884-016-1007-8.

Bums, N., & Grove, S. K. 2005. The practice of nursing research: Conduct, critique and utilization (4th ed.). Philadelphia: W.B. Saunders Company. Central'.

Busse, R. (Sb). Health technology policy-making in europe Current status , challenges and potential.

Busum, K. M. 2014. Nobody Asked if I was Okay: C-Section Experiences of Mothers Who Wanted a Birth With Limited Medical Intervention', (February).

By and agili hezron ouma. 2014. Socio-economic and cultural barriers to utilization of contraceptives among women in ndhiwa district, homa bay county, kenya. (October).

Byrne, A. *et al.*2016. Community and provider perceptions of traditional and skilled birth attendants providing maternal health care for pastoralist communities in Kenya : a qualitative study. BMC Pregnancy and Childbirth: 1–12. doi: 10.1186/s12884-016-0828-9.

C, A. 1998. Maternal mortality overview. In:Health dimensions of sex and reproduction. *Boston: Harvard University Press*. 1: 11–64.

Cerna, L. 2013. The Nature of Policy Change and Implementation : A Review of Different Theoretical Approaches.*Organisation for Economic Co-operation and Development*: 1–31. doi: 10.1186/s13012-015-0242-0.

Chan, T. M. S., Teram, E. and Shaw, I. 2015. Balancing Methodological Rigor and the Needs of Research Participants: A Debate on Alternative Approaches to Sensitive Research. *Qualitative Health Research*, 27(2): 260–270.

Chee, G. *et al.* 2013. Why differentiating between health system support and health system strengthening is needed. (July 2012): 85–94.

Cheng, J. J. *et al.*2012. An ecological quantification of the relationships between water, sanitation and infant, child, and maternal mortality. *Environmental Health: A Global Access Science Source*, 11(1): 1–8. doi: 10.1186/1476-069X-11-4.

Cherniak, W. *et al.*2017. Effectiveness of advertising availability of prenatal ultrasound on uptake of antenatal care in rural Uganda: A cluster randomized trial', *PLoS ONE*. 12(4): 1–14. doi: 10.1371/journal.pone.0175440.

Church, T. A. *et al.* 2010. Religious beliefs , Spirituality and Health : Implications for Maternal and Child mortality in Ghana: 1–17.

Clark-Foos, A. *et al.*2009. The valence of event-based prospective memory cues or the context in which they occur affects their detection: *American Journal of Psychology*, 122(1): 89–97. doi: 10.2307/27784377.

Cofie, L. E. *et al.*2015. Birth location preferences of mothers and fathers in rural Ghana : Implications for pregnancy , labor and birth outcomes. BMC Pregnancy & Childbirth: 1–8. doi: 10.1186/s12884-015-0604-2.

Coglianese, B. C. 2012. Expert Paper No . 1 , August 2012', (1): 1–59.

Colin *et al.*2012. Social Protection in Low Income Countries and Fragile Situations Challenges and Future Directions Social Protection in Low Income Countries and Fragile Situations : Challenges and Future Directions. *Social Protection and Labor Discussion Paper*. (1209).

Commitments, G. and Ownership, N. 2017. Federal Democratic Republic of Ethiopia The 2017 Voluntary National Reviews on SDGs of Ethiopia : Government Commitments. National Ownership and PerformanceTrends Content. (June).

Craymah, J. P., Oppong, R. K. and Tuoyire, D. A. 2017. Male Involvement in Maternal Health Care at Anomabo, Central Region, Ghana. 2017. doi: 10.1155/2017/2929013.

Cresswell, K. M., Bates, D. W. and Sheikh, A. 2013. Ten key considerations for the successful implementation and adoption of large-scale health information technology. *Journal of the American Medical Informatics Association*, 20(E1): 9–13. doi: 10.1136/amiajnl-2013-001684.

Cronholm, S. and Hjalmarsson, A. 2011. Experiences from sequential use of mixed methods. *The Electronic Journal of Business Research Methods*, 9(2): 87–95.

CSA. 2014. Ethiopia Mini Demographic and Health Survey (EMDHS), Central Statistical Agency', *Csa*, (August): 111. doi: 10.4269/ajtmh.15-0192.

Curry, L. A. *et al.* 2010. Achieving large ends with limited means: grand strategy in global health. *International Health*. Royal Society of Tropical Medicine and Hygiene, 2(2): 82–86. doi: 10.1016/j.inhe.2010.02.002.

Curtis, K., Weinrib, A. and Katz, J. 2012. Systematic review of yoga for pregnant women: Current status and future directions.*Evidence-based Complementary and Alternative Medicine*. 2012. doi: 10.1155/2012/715942.

D, E. T. P. and Biobele, S. 2015. Business ethics and the performance of service firms in', 3(2): 28–38.

Daire, J. and Khalil, D. 2015. Analysis of maternal and child health policies in Malawi: The methodological perspective.*Malawi medical journal : the journal of Medical Association of Malawi*, 27(4): 135–9.

Dansereau, E. *et al.* 2016. Coverage and timing of antenatal care among poor women in 6 Mesoamerican countries.BMC Pregnancy and Childbirth: 1–11. doi: 10.1186/s12884-016-1018-5.

David, E. *et al.*2014. Maternal near miss and maternal deaths in Mozambique : a cross-sectional region-wide study of 635 consecutive cases assisted in health facilities of Maputo province: 1–8. doi: 10.1186/s12884-014-0401-3.

Degni, F., Amara, I. D. and Klemetti, R. 2015. Women´s Experiences in Accessing Maternal and Child Health Services During the Period of the Armed Conflict in the North of Mali: 17–22.

Demissie, A., Sundby, J. and Gele, A. A. 2016. Attitude toward female genital mutilation among Somali and Harari people. Eastern: 557–569.

Diamond-Smith, N. *et al.*2017. Associations of women's position in the household and food insecurity with family planning use in Nepal.*PLoS ONE.* 12(4): 1–17. doi: 10.1371/journal.pone.0176127.

Dicicco-bloom, B. and Crabtree, B. F. 2006. Making sense of qualitative research The qualitative research interview: 314–321. doi: 10.1111/j.1365-2929.2006.02418.x.

Dicker, R. C. 2006. Principles of Epidemiology in Public Health Practice', *CDC* (May). Glossary of Epidemiology Terms.

Dodzo, M. K. and Mhloyi, M. 2017. Home is best . Why women in rural Zimbabwe deliver in the community: 1–23.

Dunn, K. M., Das, S. and Das, R. 2004. Male Reproductive Health: A village based study of camp attenders in rural India. *Reproductive Health*. 1: 1–6. doi: 10.1186/1742-4755-1-7.

Duysburgh, E. *et al.*2013. Counselling on and women's awareness of pregnancy danger signs in selected rural health facilities in Burkina Faso. Ghana and Tanzania', *Tropical Medicine and International Health*.18(12): 98–1509. doi: 10.1111/tmi.12214.

Ebot, J. O. 2015. Girl power!: The relationship between women's autonomy and children's immunization coverage in ethiopia. *Journal of Health. Population and Nutrition*. Journal of Health Population and Nutrition. 33(1):1–9. doi: 10.1186/s41043-015-0028-7.

Edelman, A. *et al.*2017. The role of academic health centres in building equitable health systems: A systematic review protocol.*BMJ Open*. 7(5). doi: 10.1136/bmjopen-2016-015435.

EDHS. 1997. DHS maternal mortality indicators: an assessment of data quality and implications for data use. *Macro International, Inc*.

Edwards, R. and Holland, J. 2013. *What is Qualitative Interviewing?What is?' Research Methods Series*. doi: 10.5040/9781472545244.

Egenberg, S. *et al.*2017. Impact of multi-professional. scenario- based training on postpartum hemorrhage in Tanzania : a quasi-experimental. pre-vs . post-intervention study. BMC Pregnancy and Childbirth, (September). doi: 10.1186/s12884-017-1478-2.

Elizabeth Gezahegn King, Lottie Howard-Merrill, K. N. and N. O.-O. 2014. Pro Futures Development Initiative (PFDI) Ethiopia Pro Futures Development Initiative (PFDI). Taking Action to End Child Marriage in Lay Armachiho District. Amhara Region: Ethiopia. (July).

Embrett, R. (2014) 'Social determinants of health and health equity policy research: Exploring the use, misuse, and nonuse of policy analysis theory.*Soc. Sci. Med.*, 108: 147–155.

Enuameh. Y. A. K. *et al.*2016. Factors influencing health facility delivery in predominantly rural communities across the three ecological zones in Ghana: A cross-sectional study. *PLoS ONE*, 11(3): 1–16. doi: 10.1371/journal.pone.0152235.

Ergano, K. *et al.* 2015. Determinants of community based maternal health care service utilization in South Omo pastoral areas. 3(2): 112–121.

Esamai, F. *et al.*2017. A system approach to improving maternal and child health care delivery in Kenya : innovations at the community and primary care facilities (a protocol). Reproductive Health: 1–18. doi: 10.1186/s12978-017-0358-6.

Esch, P. van and Esch, L. J. Van. 2013. Justification of a Qualitative Methodology to Investigate the Emerging Concept: The Dimensions of Religion as Underpinning Constructs for Mass Media Social. *Journal of Business Theory and Practice.* 1(2): 214–243. doi: 10.5539/ijms.v5n1p96.

Essendi, H. *et al.*2015. Infrastructural challenges to better health in maternity facilities in rural Kenya : community and healthworker perceptions. *Reproductive Health*: 1–11. doi: 10.1186/s12978-015-0078-8.

Essendi, H., Mills, S. and Fotso, J. 2010. Barriers to Formal Emergency Obstetric Care Services Utilization. 88: 356–369. doi: 10.1007/s11524-010-9481-1.

Evjen-Olsen, B. *et al.*2008. Risk factors for maternal death in the highlands of rural northern Tanzania: A case-control study.*BMC Public Health*. 8: 1–9. doi: 10.1186/1471-2458-8-52.

Fang, X. *et al.*2016. Universal neonatal hearing screening program in Shanghai, China: An inter-regional and international comparison. *International Journal of Pediatric Otorhinolaryngology.* 90: 77–85. doi: 10.1016/j.ijporl.2016.08.022.

FDRE. 2017a. Ethiopia 2017 Voluntary National Review on SDGs. (June).

FDRE. 2017b. The purpose, methods and processes of the vnrs. (Gtp Ii).

Fellegi, I. 2010. *Survey Methods and PracticesStatistics Canada*. doi: 12-587-X.

Feyissa, T. R. and Genemo, G. A. 2014. Determinants of Institutional Delivery among Childbearing Age Women in Western Ethiopia. 2013 : Unmatched Case Control Study. 9(5): 1–7. doi: 10.1371/journal.pone.0097194.

Fielding, N. 2016. The Future of Mixed Methods: A Five Year Projection to 2020. (January): 1–35.

Finaud, M. 2009. Can Autonomy Fulfil the Right to Self-Determination? (October).

Finlayson, K. and Downe, S. 2013. Why Do Women Not Use Antenatal Services in Low- and Middle-Income Countries ? A Meta-Synthesis of Qualitative Studies. 10(1). doi: 10.1371/journal.pmed.1001373.

FMoH. 2015. Health Sector Transformation Plan.

Gabriella, P. and Russo, V. 2015. Autobiographical questionnaire and semi-structured interview : comparing two instruments for educational research in difficult contexts. *Procedia - Social and Behavioral Sciences*. Elsevier B.V., 197(February): 514–524. doi: 10.1016/j.sbspro.2015.07.179.

Gabrysch, S. and Campbell, O. 2009. BMC Pregnancy and Childbirth Still too far to walk : Literature review of the determinants of delivery service use. 18: 1–18. doi: 10.1186/1471-2393-9-34.

Gale, N. K. *et al.* 2013. Using the framework method for the analysis of qualitative data in multi-disciplinary health research. *BMC Medical Research Methodology*: 13(1): 1. doi: 10.1186/1471-2288-13-117.

Geneti, K. T. 2015. Statistical Analysis of Determinants of Maternal Institutional Delivery Service Utilization in Ethiopia. *American Journal of Theoretical and Applied Statistics*. 4(3): 71. doi: 10.11648/j.ajtas.20150403.11.

George, A. S. and Branchini, C. 2017. Principles and processes behind promoting awareness of rights for quality maternal care services: A synthesis of stakeholder experiences and implementation factors. BMC Pregnancy and Childbirth. 17(1): 1–15. doi: 10.1186/s12884-017-1446-x.

Gillet, P. *et al.* 2014. Synthesis caring for mothers and newborns after uncomplicated delivery : towards integrated.

Golafshani, N. 2003. Understanding reliability and validity in qualitative research.*The Qualitative Report*. 8(4): 597–607. doi: 10.3367/UFNr.0180.201012c.1305.

Grant, M. J. and Booth, A. 2009. A typology of reviews: an analysis of 14 review types and associated methodologies, *Health Information & Libraries Journal*. 26(2): 91–108.

Gravel, K., Légaré, F. and Graham, I. D. 2006. Barriers and facilitators to implementing shared decision-making in clinical practice: A systematic review of health professionals' perceptions. *Implementation Science*, 1(1). doi: 10.1186/1748-5908-1-16.

Green, C. A. *et al.*2016. HHS Public Access Approaches.. 42(5). 508–523. doi: 10.1007/s10488-014-0552-6.

Greenland, S. *et al.* 2016. Statistical tests, P values, confidence intervals, and power: a guide to misinterpretations. *European Journal of Epidemiology*. Springer Netherlands. 31(4): 337–350. doi: 10.1007/s10654-016-0149-3.

Guetterman. T. C. 2015. Descriptions of sampling practices within five approaches to qualitative research in education and the health sciences, *Forum: Qualitative Social*

Research. 16(2).

Guimei, M. K. 2017. Determinants of Poor Utilization of Antenatal Care Services among Recently Delivered Women in Rwanda: A Population Based Study. *MCN The American Journal of Maternal/Child Nursing*. BMC Pregnancy and Childbirth. 42(6): 366. doi: 10.1097/NMC.0000000000000382.

Gupta, K. S. and Rokade, V. 2016. Importance of Quality in Health Care Sector: A Review. *Journal of Health Management*, 18(1): 84–94.

Gupta, M., Angeli, F., Schayck, O. C. P. Van, Bosma, H., *et al.*2015. methods study protocol, 9716. doi: 10.3402/gha.v8.25987.

Gupta, M., Angeli, F., Schayck, O. C. P. Van and Bosma, H. 2015. study protocol. 1.

Gupta, M. *et al.*2017. A mixed methods study on evaluating the performance of a multi-strategy national health program to reduce maternal and child health disparities in Haryana: India. BMC Public Health: 1–13. doi: 10.1186/s12889-017-4706-9.

Gupta, S. *et al.*2014. Factors associated with four or more antenatal care visits and its decline among pregnant women in Tanzania between 1999 and 2010. *PLoS ONE*. 9(7). doi: 10.1371/journal.pone.0101893.

Gupta, T. and Samuels, F. 2017. Literature review of male perpetrators of intimate partner violence in South Asia. (March).

Haber, J. 2009. Chapter 2: Research Questions, Hypotheses and Clinical Questions. *Nursing Research: Methods and Critical Appraisal for Evidence-Based Practice*: 27–55.

Hagos, S. *et al.*2014. Utilization of institutional delivery service at Wukro and Butajera districts in the Northern and South Central Ethiopia. *BMC Pregnancy and Childbirth*. 14(1): 1–11. doi: 10.1186/1471-2393-14-178.

Hamel, F. *et al.*2012. Managing costs and performance of IT in business groups : Towards a performance measurement model for global insurance business groups', *Proceedings of AMCIS 2012*: 1–10.

Hardee, K. 2013. Approach for Addressing and Measuring Policy Development and Implementation in the Scale-Up of Family Planning and Maternal, Neonatal, and Child Health Programs, (January): 1–18.

Hart, B. (Sb). University of Maryland College Park University of Maryland College Park: 1–3.

Harwell, M. R. 2011. Research Design in Qualitative/Quantitative/ Mixed Methods. *The SAGE Handbook for Research in Education: Pursuing Ideas as the Keystone of Exemplary Inquiry*: 147–182. doi: 10.4135/9781412961288.n380.

Hastings-tolsma, M., Nolte, A. G. W. and Temane, A. 2018. Birth stories from South Africa : Voices unheard. *Women and Birth*. Australian College of Midwives, 31(1): e42–e50. doi: 10.1016j.wombi.2017.06.015.

Healey, G. K. and Meadows, L. M. 2007. Inuit women's health in Nunavut, Canada: a review

of the literature. *International Journal of Circumpolar Health*, 66(3): 199–214.

Heesen, R., Bright, L. K. and Zucker, A. 2016. Vindicating methodological triangulation*Synthese*. Springer Netherlands: 1–15. doi: 10.1007/s11229-016-1294-7.

Herbert, S. 2015. Social norms, contraception and family planning, *GSDRC Helpdesk Research Report*: 1–15.

Hoffman C. D. 2005. Investigative Interviewing: Strategies and Techniques', (August): 1–19.

Hogan, M. C. *et al.*2016. Reclassifying causes of obstetric death in Mexico : a repeated cross- sectional study. (December 2015): 362–369.

Hynes, L. 2015. Thesis submitted for the Degree of Doctor of Philosophy'.

Ibrahim, S. M., M. Bukar, Y. Mohammed, B. M. Audu, and H. M. I. 2013. Prevalence of Vaginal Candidiasis among Pregnant Women with Abnormal Vaginal Discharge in Maiduguri.*Nigerian Journal of Medicine*. 22(2): 38–42.

Irb, G. 2014. Privacy versus Confidentiality Overview : Definitions : Description : OSIRIS : Considerations: 3–5.

Islam, M., Jahan, N. and Hossain, D. 2018. Violence against women and mental disorder : a qualitative study in Bangladesh'. Tropical Medicine and Health: 1–12. doi: 10.1186/s41182-018-0085-x.

Jamison, D. T. *et al.*2013. Global health 2035: a world converging within a generation. *Lancet*, 382.

Jamshed, S. 2014. Qualitative research method-interviewing and observation.*Journal of Basic and Clinical Pharmacy*, 5(4): 87. doi: 10.4103/0976-0105.141942.

Jansen, D. E. M. C. *et al.*2018. Need for mental health care in adolescents and its determinants : The TRAILS Study. 23(2): 236–241. doi: 10.1093/eurpub/cks087.

Jenks, C. J. (2018) 'In : The SAGE Handbook of Qualitative Data Collection: 118–130.

Jervis, M. and Drake, M. 2014. The use of qualitative research methods in quantitative science: A review.*Journal of Sensory Studies*, 29(4): 234–247. doi: doi:10.1111/joss.12101.

Jiang, H. *et al.*2017. Selective versus routine use of episiotomy for vaginal birth (Review). (2). doi: 10.1002/14651858.CD000081.pub3.www.cochranelibrary.com.

Johnson, W. 2013. Health Leader Training and Mentoring Program: 1–57.

Jones, N. and Datta, A. Sb. Linkages between researchers and legislators in developing countries A scoping study.

Joseph, G. *et al.*2016. Inequalities in the coverage of place of delivery and skilled birth attendance: Analyses of cross-sectional surveys in 80 low and middle-income countries. *Reproductive Health*. doi: 10.1186/s12978-016-0192-2.

Kabagenyi, A. *et al.*2016. Socio-cultural inhibitors to use of modern contraceptive techniques in rural Uganda: a qualitative study. *The Pan African medical journal*, 25: 78. doi: 10.11604/pamj.2016.25.78.6613.

Kalasa, B. and Jacobson, M. 2012. Evaluation of UNFPA Support to Maternal Health Mid-Term Evaluation of the Maternal Health Thematic Fund COUNTRY REPORT : ETHIOPIA Ethiopia Country Office.

Kambala, C. *et al.*2011. Barriers to maternal health service use in Chikhwawa , Southern Malawi. 23(March): 1–5.

Kamla-Raj. 2014. Is There a Conceptual Difference between Theoretical and Conceptual Frameworks?. *J Soc Sci*, 38(2): 185–195.

Kaphle, S. *et al.* 2013. Childbirth traditions and cultural perceptions of safety in Nepal : Critical spaces to ensure the survival of mothers and newborns in remote mountain villages.*Midwifery*. Elsevier, 29(10): 1173–1181. doi: 10.1016/j.midw.2013.06.002.

Kapiamba, G., Masango, T. and Mphuthi, D. 2016. Antiretroviral adherence and virological outcomes in HIV-positive patients in Ugu district, KwaZulu-Natal province.*African Journal of AIDS Research.* 15(3): 195–201. doi: 10.2989/16085906.2016.1170710.

Karanja, S. *et al.*2018. Factors influencing deliveries at health facilities in a rural Maasai Community in. BMC Pregnancy and Childbirth: 1–11. doi: 10.1186/s12884-017-1632-x.

Karim, A. M. *et al.* 2013. Effect of Ethiopia's Health Extension Program on Maternal and Newborn Health Care Practices in 101 Rural Districts : A Dose-Response Study: 8(6). doi: 10.1371/journal.pone.0065160.

Karlsen, S. *et al.*2011. The relationship between maternal education and mortality among women giving birth in health care institutions: Analysis of the cross sectional WHO Global Survey on Maternal and Perinatal Health.*BMC Public Health*, 11(1): 606. doi: 10.1186/1471-2458-11-606.

Kate Silburn, H. R. & I. A. (eds). 2016.*A Global Snapshot of Indigenous and Tribal Peoples' Health*.

Kawakatsu, Y. *et al.*2014. Determinants of health facility utilization for childbirth in rural western Kenya: cross-sectional study. *BMC Pregnancy Childbirth.* 14: 265. doi: 10.1186/1471-2393-14-265.

Khan, S. N. 2014. Qualitative Research Method: Grounded Theory, *International Journal of Business and Management*. 9(11). doi: 10.5539/ijbm.v9n11p224.

Khanal, V. *et al.*2014. Factors associated with the utilisation of postnatal care services among the mothers of Nepal : analysis of Nepal Demographic and Health Survey 2011: 1–13.

Khatri, R. B. *et al.*2017. Barriers to utilization of childbirth services of a rural birthing center in Nepal : A qualitative study: 1–20.

Kiango, P. 2015. Factors affecting utilisation of maternal health care services among pregnant mothers: a case of bumbuli district council. *Mzumbe University*.

Kifle, D. *et al.*2017. Maternal health care service seeking behaviors and associated factors

among women in rural Haramaya District, Eastern Ethiopia: a triangulated community-based cross-sectional study. *Reproductive Health*. 14(1): 1–11. doi: 10.1186/s12978-016-0270-5.

Killawi, A. *et al.* 2014. Procedures of recruiting , obtaining informed consent , and compensating research participants in Qatar : findings from a qualitative investigation: 1–13.

King, E. M. and Winthrop, R. 2015. Today's challenges for girls. (June).

King, T. W. and Patrick, C. W. 2012. Addressing policy development and implementation in scale-up initiatives.*Analysis*, (December).

Kinzig, A. P. *et al.*2014. NIH Public Access. 63(3): 164–175. doi: 10.1525/bio.2013.63.3.5.Social.

Kironji, A. G. *et al.*2018. Identifying barriers for out of hospital emergency care in low and low-middle income countries : a systematic review'. BMC Health Services Research: 1–20.

Kjerulff, K. H. *et al.*2013. Mode of First Delivery and Women's Intentions for Subsequent Childbearing : Findings from the First Baby Study: 62–71. doi: 10.1111/ppe.12014.

Klabbers, G. A. 2016. Severe Fear of Childbirth : Its Features , Assesment , Prevalence , Determinants , Consequences and Possible Treatments: 25: 107–127.

Korstjens, I. and Moser, A. 2017. Series: Practical guidance to qualitative research. Part 4: Trustworthiness and publishing.*European Journal of General Practice*. Informa UK Limited, trading as Taylor & Francis Group, 0(0): 1–5. doi: 10.1080/13814788.2017.1375092.

Kovach, M. 2010. First Peoples Child & Family Review Conversational Method in Indigenous Research. 5(1): 40–48.

Kozuki, N. *et al.*2013. The associations of parity and maternal age with small-for-gestational-age , preterm , and neonatal and infant mortality : a meta-analysis. 13(Suppl 3).

Kruk M, Paczkowski M, Tegegn A, Tessema F, Hadley C, Asefa M, et al. 2010. 'Women's preferences for obstetric care in rural Ethiopia: a population-based discrete choice experiment in a region with low rates of facility delivery', *J Epidemiol Community Health*, 64(11): 984–8.

Kumbani, L. *et al.*2013. Why some women fail to give birth at health facilities : a qualitative study of women's perceptions of perinatal care from rural Southern Malawi: 1–12.

Kwabenaasare, F. and Ibrahim, M. 2017. Assessing the Quality Service Delivery of Health Insurance Scheme in Ghana : The Case of the National Health Insurance Scheme (NHIS). 7(5): 1–29.

Kwambai, T. K. *et al.* 2013. Perspectives of men on antenatal and delivery care service utilisation in rural western Kenya: a qualitative study.*BMC Pregnancy Childbirth*, 13: 134. doi: 10.1186/1471-2393-13-134.

Lakew, S., Tachbele, E. and Gelibo, T. 2015. Predictors of skilled assistance seeking behavior to pregnancy complications among women at southwest Ethiopia : a cross-sectional community based study. Reproductive Health: 1–8. doi: 10.1186/s12978-015-

0102-z.

Lamaro, T. and Tadele, N. 2017. Family Planning Service Utilization and Its Associated Factors among Married Women in Benchi-Maji Zone, Southwest, Ethiopia: Community-Based Crosssectional Study.*Clinics in Mother and Child Health.* 14(1): 1–8. doi: 10.4172/2090-7214.1000258.

Lammers, W. J. and Babbie, E. 2005. Sampling Techniques, *Fundamentals of Behavioral Research*: 1–23.

Lan, C. and Tavrow, P. 2017. Composite measures of women's empowerment and their association with maternal mortality in low-income countries. 17(Suppl 2). doi: 10.1186/s12884-017-1492-4.

Lang, E. and Mwanri, L. 2015. Healthcare service providers' and facility administrators' perspectives of the free maternal healthcare services policy in Malindi District, Kenya: a qualitative study'. Reproductive Health: 1–11. doi: 10.1186/s12978-015-0048-1.

Larrat, E. P., Marcoux, R. M. and Vogenberg, F. R. 2012. Impact of federal and state legal trends on health care services.*P & T : a peer-reviewed journal for formulary management*, 37(4): 218–26.

Lars, A. and Iversen, L. 2017. Understanding some cultural barriers to women's access to education A case study in rural Nepal . Sanumaiya Bhandary Supervisor.

Lazzerini, C. M. *et al.*2014. Hospital care for mothers and newborn babies : quality assessment and improvement tool.

Lee, C. F., Lee, J. C. and Lee, A. C. 2013. *Statistics for business and financial economics: Third edition*, *Statistics for Business and Financial Economics: Third Edition*. doi: 10.1007/978-1-4614-5897-5.

Lee, S. H. *et al.*2016. Effectiveness of mHealth interventions for maternal, newborn and child health in low– and middle–income countries: Systematic review and meta–analysis.*Journal of Global Health*. 6(1). doi: 10.7189/jogh.06.010401.

Lerberg, P. M. *et al.*2015. Barriers to Skilled Birth Attendance : A Survey among Mothers in Rural Gambia. 18(March 2014): 35–43.

Lewis, S., Lee, A. and Simkhada, P. 2015. The role of husbands in maternal health and safe childbirth in rural Nepal: A qualitative study.*BMC Pregnancy and Childbirth*. 15(1): 1–10. doi: 10.1186/s12884-015-0599-8.

Livingstone, S. and Haddon, L. 2013. How to research children and online technologies? Frequently asked questions and best practice. (May).

Long-Sutehall, T., Sque, M. and Addington-Hall, J. 2011. Secondary analysis of qualitative data: A valuable method for exploring sensitive issues with an elusive population? *Journal of Research in Nursing*. 16(4): 335–344. doi: 10.1177/1744987110381553.

López, N. and Gadsden, V. L. 2016. Health Inequities , Social Determinants , and

Intersectionality.

Lowe, M. 2017. Social and cultural barriers to husbands' involvement in maternal health in rural Gambia. 8688: 1–7. doi: 10.11604/pamj.2017.27.255.11378.

Lowe, M., Chen, D.-R. and Huang, S.-L. 2016. Social and Cultural Factors Affecting Maternal Health in Rural Gambia: An Exploratory Qualitative Study.*Plos One*, 11(9): e0163653. doi: 10.1371/journal.pone.0163653.

Maboe, K. 2009. Research design and Methods: 61–72.

Machira, K. and Palamuleni, M. 2018. Women ' s perspectives on quality of maternal health care services in Malawi: 25–34.

Madaj, B. *et al.*2017. Developing global indicators for quality of maternal and newborn care: a feasibility assessment.*Bulletin of the World Health Organization*, 95(6): 445–452I. doi: 10.2471/BLT.16.179531.

Magee, L. A., Von Dadelszen, P. and Munguambe, K. 2016. Community perspectives on the determinants of maternal health in rural southern Mozambique: a qualitative study. *Reproductive Health*.13(Suppl 2): 123–131. doi: 10.1186/s12978-016-0217-x.

Mann, S. P., Bradley, V. J. and Sahakian, B. J. 2016. HHr Human Rights-Based Approaches to Mental Health : A Review of Programs. 18(1): 263–276.

Mannah, M. T. *et al.* 2014. Opportunities and challenges in implementing community based skilled birth attendance strategy in Kenya.

Mannava, P. *et al.*2015. Attitudes and behaviours of maternal health care providers in interactions with clients : a systematic review. *Globalization and Health*. Globalization and Health: 1–17. doi: 10.1186/s12992-015-0117-9.

Manyazewal, T., Oosthuizen, M. J. and Matlakala, M. C. 2016. Proposing evidence-based strategies to strengthen implementation of healthcare reform in resource-limited settings: a summative analysis.*BMJ Open*, 6(9): e012582.

Manyeh, A. K. *et al.*2017. Socio - demographic determinants of skilled birth attendant at delivery in rural southern Ghana.*BMC Research Notes*. BioMed Central: 1–7. doi: 10.1186/s13104-017-2591-z.

Margaret C. Harrell; Melissa A. Bradley. 2009.*Data Collection Methods Semi-Structured Interviews and Focus Groups*, *Distribution*. doi: 978-0-8330-4889-9.

Marmot, M. and Allen, J. J. 2014. Social Determinants of Health Equity.*American Journal of Public Healt.* 104(Suppl 4): S517–S519.

Martinez, J. C., King, M. P. and Cauchi, R. 2016. Improving the Health Care System: Seven State Strategies.*National Conference of State Legislators*, (July).

Mathenge Kingo'ri, F. 2016. Analysis of Public Procurement Planning Practices on Provision of Quality Health Care Services at Nakuru Level V Hospital, Kenya.*Journal of Investment and Management*. 5(5): 51. doi: 10.11648/j.jim.20160505.13.

McDavid, J. C. and Huse, I. 2013. Research Designs for Program Evaluations*Program Evaluation and Performance Measurement: An Introduction to Practice:* 79–128.

Mclaren, L. and Hawe, P. 2005. Ecological perspectives in health research: 6–14. doi: 10.1136/jech.2003.018044.

MCM. 1999. Safe motherhood indicators—lessons learned in measuring progress.*Mother Care Matters*. 8: 1–24.

McMahon, S. A. *et al.*2017. “we and the nurses are now working with one voice” How community leaders and health committee members describe their role in Sierra Leone’s Ebola response.*BMC Health Services Research*. 17(1): 1–10. doi: 10.1186/s12913-017-2414-x.

Medsker, B. *et al.*2016. HHS Public Access. 70(12): 773–779. doi: 10.1097/OGX.0000000000000256.Prenatal.

Melaku, Y. A. *et al.*2014. Poor linkages in maternal health care services—evidence on antenatal care and institutional delivery from a community-based longitudinal study in Tigray region, Ethiopia. *BMC Pregnancy and Childbirth*, 14(1): 418. doi: 10.1186/s12884-014-0418-7.

Mesele, H. A. 2018. Anatomy & Physiology : Current Traditional Maternal Health Beliefs and Practices in Southern Tigray : The Case of Raya Alamata District. 8(2): 1–12. doi: 10.4172/2161-0940.1000298.

Mezmur, H., Semahegn, A. and Tegegne, B. S. 2017. Health professional’s knowledge and use of the partograph in public health institutions in eastern Ethiopia : a cross-sectional study. BMC Pregnancy and Childbirth: 1–7. doi: 10.1186/s12884-017-1477-3.

Mezmur, M. *et al.* 2017. Individual , household and contextual factors associated with skilled delivery care in Ethiopia : Evidence from Ethiopian demographic and health surveys: 1–16.

Mohamed, A. *et al.*2016. Introduction : - Literature Review. 4(1): 889–907.

Mohammed, B. H. *et al.*2017. Intimate partner violence and utilization of maternal health care services in Addis Ababa, Ethiopia.*BMC Health Services Research*. 17(1): 1–10. doi: 10.1186/s12913-017-2121-7.

Mokomane, Z. 2012. Role of Families in Social and Economic Empowerment of Individuals: 0–14.

Moodley, J. *et al.* 2014. The Confidential Enquiry into Maternal Deaths in South Africa: a case study. *BJOG : an international journal of obstetrics and gynaecology*, 121: 53–60. doi: 10.1111/1471-0528.12869.

Morris, M. W. *et al.*1999. Views from inside and outside: Integrating emic and etic insights about culture and justice judgment.*Academy of Management Review.* 24(4): 781–796. doi: 10.5465/AMR.1999.2553253.

Mosadeghrad, A. M. 2014. Factors Influencing Healthcare Service Quality’, *International*

Journal of Health Policy and Management. 3(2): 77–89. doi: 10.15171/ijhpm.2014.65.

Mselle, L. T. and Kohi, T. W. 2016. Healthcare access and quality of birth care : narratives of women living with obstetric fistula in rural Tanzania.*Reproductive Health*: 1–9. doi: 10.1186/s12978-016-0189-x.

Mulenga, T. *et al.*2018. Home deliveries in the capital : a qualitative exploration of barriers to institutional deliveries in peri-urban areas of Lusaka , Zambia. BMC Pregnancy and Childbirth: 1–11.

Mungai, S. 2015. Determinants of Maternal Health Care Services in Kenya By. (November): 1–51.

Mustafa, M. *et al.*2016. Maternal Health andMortality in Developing Countries : Challenges of Achieving Millennium Development Goals. 15(8): 112–117. doi: 10.9790/0853-150803112117.

Nalwadda, C. *et al.*2014. Health system preparedness for newborn care: a health facility assessment in rural Uganda', *BMC Health Services Research*, 14(Suppl 2): P63. doi: 10.1186/1472-6963-14-S2-P63.

National Plan Commission. 2017. The 2017 Voluntary National Reviews on SDGs of Ethiopia: Government Commitments, National Ownership and PerformanceTrends. (June).

Ndege, S. *et al.*2016. HIV Prevalence and Antenatal Care Attendance among Pregnant Women in a Large Home-Based HIV Counseling and Testing Program in Western Kenya. *PLoS ONE*, 11(1). 1–10. doi: 10.1371/journal.pone.0144618.

Neil, T. O. and Domingo, P. 2015. The power to decide Women, decision-making and gender equality. (September): 1–8.

Nesane, K., Maputle, S. M. and Shilubane, H. 2016. Male partners' views of involvement in maternal healthcare services at Makhado Municipality clinics, Limpopo Province, South Africa. *African Journal of Primary Health Care and Family Medicine.* 8(2): 1–5. doi: 10.4102/phcfm.v8i2.929.

Nikose, S. *et al.* 2015. Women's Health Care Prevalence of Osteoporosis in Female Population in Rural Central India [By Calcaneal Ultrasound]. *Journal women's Health Care*. 4(5): 4–6. doi: 10.4172/2167-0420.

Njie, H., Manion, C. and Badjie, M. 2015. Girls' Familial Responsibilities and Schooling in The Gambia: 8(10): 48–62. doi: 10.5539/ies.v8n10p48.

Ntshakala, T. T. 2012. Quality of life of people living with hiv and aids in swaziland who are on antiretroviral. (September).

Nyandieka, L. N. *et al.*2016. Male Involvement in Maternal Health Planning Key to Utilization of Skilled Birth Services in Malindi Subcounty: Kenya. 2016.

Nybergh, L. *et al.*2013. Self-reported exposure to intimate partner violence among women and men in Sweden : results from a population-based survey.

Ogunlesi, T. A. and Abdul, A. R. 2015. Maternal knowledge and care-seeking behaviors for newborn jaundice in Sagamu: Southwest Nigeria. *Nigerian Journal of Clinical Practice.* 18(1): 33–40. doi: 10.4103/1119-3077.146976.

OHCHR, UNAIDS, UNDP, UNECA, UNESCO, UNFPA, UNHCR, UNICEF, UNIFEM, W. 2008. Eliminating Female genital mutilation An interagency statement.

Okonofua, F. *et al.*2017. Qualitative assessment of women's satisfaction with maternal health care in referral hospitals in Nigeria.*Reproductive Health*. Reproductive Health. 14(1): 1–8. doi: 10.1186/s12978-017-0305-6.

Okumu, D. M. and Mberia, P. H. 2017. Strategic CommunicationFactors Affecting the Uptake of Voluntary Medical Male Circumcision (VMMC) Among the Traditionally Non-Circumcising in Kenya. 22(9): 39–47. doi: 10.9790/0837-2209153947.

Oliver, K., Lorenc, T. and Innvær, S. 2014. New directions in evidence-based policy research : a critical analysis of the literature: 1–11. doi: 10.1186/1478-4505-12-34.

Onta, S. *et al.*2014. Perceptions of users and providers on barriers to utilizing skilled birth care in mid- and far-western Nepal: a qualitative study. 9716. doi: 10.3402/gha.v7.24580.

Palinkas, L. A. *et al.*2015. Purposeful Sampling for Qualitative Data Collection and Analysis in Mixed Method Implementation Research.*Adm. Policy Ment. Health*, 42(5): 2–4. doi: 10.1007/s10488-013-0528-y.Purposeful.

Pambid, R. C. 2015. Factors Influencing Mothers' Utilization of Maternal and Child Care (MCC) Services', *Asia Pacific Journal of Multidisciplinary Research*. 3(35): 16–28.

PATH. 2016. Stronger markets, increased access to essential maternal health supplies.

Patton. 2002. Qualitative research and evaluation methods, *SAGE*, 3rd editio(Thousand Oaks, CA).

Peersman, G. 2014. Overview: Data Collection and Analysis Methods in Impact Evaluation, *Methodological Briefs: Impact Evaluation*. 10: 21.

Pell, C. *et al.*2013. Factors Affecting Antenatal Care Attendance: Results from Qualitative Studies in Ghana, Kenya and Malawi. *PLoS ONE*. doi: 10.1371/journal.pone.0053747.

Pfeiffer, C. and Mwaipopo, R. 2015. Delivering at home or in a health facility? health-seeking behaviour of women and the role of traditional birth attendants in Tanzania.

Pickett, K.E. Wilkinson, R. G. 2015. Income inequality and health: A causal review. *Soc. Sci. Med*, 12: 316–326.

Pinfold, J. V. 1999. Analysis of different communication channels for promoting hygiene behaviour. 14(5): 629–639.

Practice, R. and Number, B. 2016. P R AC T I C E Management of Preterm Labor. 127(1): 29–38.

Press, D. 2012. The role of gender inequities in women's access to reproductive health care : a population-level: 351–364.

Proctor, E. K., Powell, B. J. and McMillen, J. C. 2013. Implementation strategies: Recommendations for specifying and reporting. *Implementation Science.* 8(1): 1–11. doi: 10.1186/1748-5908-8-139.

Pun, K. D. *et al.*2016. Community perceptions on domestic violence against pregnant women in Nepal : a qualitative study Community perceptions on domestic violence against pregnant women in Nepal : a qualitative study. 9716. doi: 10.3402/gha.v9.31964.

Rahman, M. S. 2016. The Advantages and Disadvantages of Using Qualitative and Quantitative Approaches and Methods in Language. “Testing and Assessment” Research : A Literature Review. (November). doi: 10.5539/jel.v6n1p102.

Ramezani Tehrani, F. *et al.* 2016. Factors Influencing the Use of Prenatal Care: A Systematic Review. *Journal of Midwifery and Reproductive Health.* 4(1): 544–557. doi: 10.22038/JMRH.2016.6431.

Rao, K., Vanguri, P. and Premchander, S. 2011. Community-Based Mental Health Intervention for Underprivileged Women in Rural India : An Experiential Report. 2011. doi: 10.1155/2011/621426.

Raphael, D. and Brassolotto, J. 2015. Understanding action on the social determinants of health: a critical realist analysis of in-depth interviews with staff of nine Ontario public health units.*BMC Research Notes*. 8: 105.

Rashed, S. and Janem, M. 2011. Analysis of Project Management Practices in Public Sector in West Bank. "Ministry of Public Works & Housing" Analysis of Project Management Practices in Public Sector in West Bank" Ministry of Public Works & Housing".

Reeves, S. *et al.*2013. Ethnography in qualitative educational research: AMEE Guide No. 80. *Medical Teacher*. 35(8). doi: 10.3109/0142159X.2013.804977.

Rensburg, A. J. Van and Fourie, P. 2016. Health policy and integrated mental health care in the SADC region : strategic clarification using the Rainbow Model.*International Journal of Mental Health Systems*. BioMed Central: 1–13. doi: 10.1186/s13033-016-0081-7.

Reynolds, H. W., Wong, E. L. and Tucker, H. 2006. Adolescents’ Use of Maternal and Child Health Services in Developing Countries.*International Family Planning Perspectives*, 32(01): 6–16. doi: 10.1363/3200606.

Rigby E, H. M. 2016. Incorporating Economic policy into a “health-in-all-policies” agenda, *Health Aff (Millwood)*. 35(11): 2044–2052.

Robin Urquhart, Lois Jackson, Joan Sargeant, Geoffrey A. Porter, E. G. 2015. Health System-Level Factors Influence the Implementation of Complex Innovations in Cancer Care Les facteurs au niveau du système de santé influencent la mise en œuvre d’innovations complexes pour le traitement du cancer. 11(2): 102–118.

Roro, M. A. *et al.*2014. Why do women not deliver in health facilities : a qualitative study of the community perspectives in south central Ethiopia?: 1–7.

Roudsari, R. L., Zakerihamidi, M. and Merghati, E. 2015. Original A rticle Socio-Cultural Beliefs, Values and Traditions Regarding Women's Preferred Mode of Birth in the North of Iran. 3(3): 165–176.

Rousseau, D. M. 2015. Annual Review of Psychology 2015.

Sakeah, E. *et al.*2014. Using the community-based health planning and services program to promote skilled delivery in rural Ghana: Socio-demographic factors that influence women utilization of skilled attendants at birth in Northern Ghana.*BMC Public Health*. 14(1): 1–9. doi: 10.1186/1471-2458-14-344.

Sapountzi-krepia, D. *et al.*2010. Fathers' Feelings and Experience Related to their Wife / Partner's Delivery in Northern Greece: 48–54.

Sarker, B. K. *et al.*2016. Reasons for Preference of Home Delivery with Traditional Birth Attendants (TBAs) in Rural Bangladesh : A Qualitative Exploration: 1–19. doi: 10.1371/journal.pone.0146161.

Sarmento, D. R. 2014. Traditional Birth Attendance (TBA) in a health system: What are the roles, benefits and challenges: A case study of incorporated TBA in Timor-Leste. *Asia Pacific Family Medicine*. 13(1): 1–9. doi: 10.1186/s12930-014-0012-1.

Chutt, R. K. and Chambliss, D. F. 2013. Qualitative Data Analysis. *Making Sense of the Social World: Methods of Investigation*: 320–357. doi: 10.1136/ebnurs.2011.100352.

Scotland, J. 2012. Exploring the philosophical underpinnings of research: Relating ontology and epistemology to the methodology and methods of the scientific, interpretive, and critical research paradigms.*English Language Teaching*. 5(9): 9–16. doi: 10.5539/elt.v5n9p9.

Scott, M. and Vera-hernandez, M. (Sb). Evaluating development policy at IFS Extended family networks and household well-being : evidence from Malawi.

Sedekia, Y. *et al.*2017. Using contraceptives to delay first birth : a qualitative study of individual, community and health provider perceptions in southern Tanzania. BMC Public Health: 1–13. doi: 10.1186/s12889-017-4759-9.

Setegn, T., Lakew, Y. and Deribe, K. 2016. Geographic Variation and Factors Associated with Female Genital Mutilation among Reproductive Age Women in Ethiopia : A National Population Based Survey, 1–17. doi: 10.1371/journal.pone.0145329.

Shahabuddin, A. S. M. *et al.*2017. Determinants of institutional delivery among young married women in Nepal: Evidence from the Nepal Demographic and Health Survey, 2011', *BMJ Open*, 7(4): 1–9. doi: 10.1136/bmjopen-2016-012446.

Shahnazaryan, G., Hovhannisyan, S. and Grigoryan, S. 2017. *The role of mothers – in – law and prenatal sex – selection (sex selective abortion) in*.

Sharma, S. *et al.* 2016. Measuring what works: An impact evaluation of women's groups on maternal health uptake in rural Nepal. *PLoS ONE*, 11(5): 1–16. doi: 10.1371/journal.pone.0155144.

Shiekh, B. El and Kwaak, A. Van Der. 2015. Factors influencing the utilization of maternal health care services by nomads in Sudan, *Pastoralism*. Pastoralism. doi: 10.1186/s13570-015-0041-x.

Shiferaw, S. *et al.* 2013. Why do women prefer home births in Ethiopia ?

Shimpuku, Y. *et al.*2017. Perceptional gaps among women, husbands and family members about intentions for birthplace: a cross-sectional study. *Revista Latino-Americana de Enfermagem*, 25(0). doi: 10.1590/1518-8345.1658.2840.

Sialubanje, C. *et al.*2015. Reasons for home delivery and use of traditional birth attendants in rural Zambia : a qualitative study', *BMC Pregnancy and Childbirth*. BMC Pregnancy and Childbirth, pp. 1–12. doi: 10.1186/s12884-015-0652-7.

Silverman, D. 2011. What is qualitative research? *Interpreting Qualitative Data: Methods for Analyzing Talk, Text and Interaction*: 33–62. doi: 10.1177/1049732305279135.

Silverman, J. G. and Raj, A. 2014. Intimate Partner Violence and Reproductive Coercion: Global Barriers to Women's Reproductive Control', *PLoS Medicine*, 11(9): 9–12. doi: 10.1371/journal.pmed.1001723.

Singer, E., Blair, J. and Spaeth, M. 2004. Risk , Benefit , and Informed Consent in Survey Research. 35(2).

Singh, A., Kumar, A. and Pranjali, P. 2014. Utilization of maternal healthcare among adolescent mothers in urban India : evidence from DLHS-3: 1–29. doi: 10.7717/peerj.592.

Singh, P. K. *et al.*2014. Factors associated with maternal healthcare services utilization in nine high focus states in India : a multilevel analysis based on 14 385 communities in 292 districts. (June 2013): 542–559. doi: 10.1093/heapol/czt039.

Smajdor, A. *et al.*2009. Applying for ethical approval for research in the United Kingdom. *BMJ*. 339.

Small, R., Yelland, J. & Lumley, J. 1999. No Title Cross-cultural research: Trying to do it better. 2. Enhancing data quality.*Australian and New Zealand Journal of Public Health*, 23(4): 390–395.

Smith, B. *et al.*2014. A Guide to the Implementation Process : Stages , Steps and Activities A Guide to the Implementation Process : Stages , Steps and Activities: 1–15.

Smith, P. C., Mossialos, E. and Papanicolas, I. 2008. Performance Measurement for Health System Improvement Experiences, Challenges and Prospects, *World Health*, 57(2): 726. doi: 10.1111/j.1467-9302.2005.00476.x.

Smith, S. L. and Neupane, S. 2011. Factors in health initiative success: Learning from Nepal's newborn survival initiative. *Social Science and Medicine*. Elsevier Ltd, 72(4): 568–575. doi: 10.1016/j.socscimed.2010.11.022.

Soini, H., Kronqvist, E. and Huber, G. L. 2011.*Qualitative Psycholgy Nexus Vol. VIII: Epistemologies for Qualitative Research*, *Komplette Ausgabe einer Konferenz etc.)*

zugänglich unte.

Speizer, I. S., Story, W. T. and Singh, K. 2014. Factors associated with institutional delivery in Ghana: The role of decision-making autonomy and community norms.*BMC Pregnancy and Childbirth*, 14(1): 1–13. doi: 10.1186/s12884-014-0398-7.

Srivastava, A. *et al.*2015. Determinants of women's satisfaction with maternal health care: A review of literature from developing countries. *BMC Pregnancy and Childbirth*. doi: 10.1186/s12884-015-0525-0.

Starkey, P. and Hine, J. 2014. Poverty and sustainable transport How transport affects poor people with policy implications for poverty reduction A literature review. (October).

State, R., Seifu, W. and Meressa, B. 2017. Reproductive System & Sexual Disorders : Current Research Maternal Health Care Service Utilization and Associated Factors among Pastoral and Agro Pastoral Reproductive Age Women Residing in Jigjiga Town, Somali. 6(2). doi: 10.4172/2161-038X.1000206.

Sterlingova, T. and Lundén, M. 2018. Why do women refrain from mammography screening?*Radiography*. 24(1): e19–e24. doi: 10.1016/j.radi.2017.07.006.

Stevenson, J. 2017. Social , behavioural and community engagement interventions for reproductive, maternal, newborn and child health An evidence gap map December 2017 Evidence Gap Map Report 11.

Strasser, C. *et al.*2012. Primer on Data Management : What you always wanted to know.*DataONE*: 1–11. doi: 10.5060/D2251G48.

Su, Y. *et al.*2016. Impact of an SMS advice programme on maternal and newborn health in rural China: Study protocol for a quasi-randomised controlled trial, *BMJ Open*, 6(8): 1–14. doi: 10.1136/bmjopen-2015-011016.

Summary, E. 2016. WHO global strategy on integrated people-centred health services 2016-2026.

Sutcliffe, S. and Court, J. 2005. Evidence-Based Policymaking : What is it? How does it work? What relevance for developing countries? (November).

Suter, N. 2012. Qualitative Data, Analysis, and Design.*Introduction to Educational Research: A Critical Thinking Approach*: 342–386. doi: 10.4135/9781483384443.

Sutton, J. and Austin, Z. 2015. Full-Text. 68(3): 226–231.

Tadele, N. and Lamaro, T. 2017. Utilization of institutional delivery service and associated factors in Bench Maji zone, Southwest Ethiopia: community based, cross sectional study. *BMC Health Services Research*. 17(1): 1–10. doi: 10.1186/s12913-017-2057-y.

Tarekegn, S. M., Lieberman, L. S. and Giedraitis, V. 2014. Determinants of maternal health service utilization in Ethiopia: Analysis of the 2011 Ethiopian Demographic and Health Survey, *BMC Pregnancy and Childbirth*. 14(1): 1–13. doi: 10.1186/1471-2393-14-161.

Tariq, S. and Woodman, J. 2013. Using mixed methods in health research. *JRSM Short*

Reports, 4(6): 204253331347919. doi: 10.1177/2042533313479197.

Terfasa, T. G., Afework, M. F. and Berhe, F. T. 2017. Antenatal Care Utilization and It's Associated Factors in East Wollega Zone, Ethiopia', *Journal of Pregnancy and Child Health*, 04(02): 2–7. doi: 10.4172/2376-127X.1000316.

Terjesen, S., Hessels, J. and Li, D. 2013. Comparative International Entrepreneurship: A Review and Research Agenda.*Journal of Management*, 42(1): 299–344.

Terre Blanche, M, Durrheim, K & Painter, D. 2006. *Research in practice: applied methods for the social sciences. 2nd edition. Cape Town: University of Cape Town Press.tle*.

Tesfaye, G. *et al.*2017. Delayed initiation of antenatal care and associated factors in Ethiopia : a systematic review and meta-analysis. Reproductive Health: 150. doi: 10.1186/s12978-017-0412-4.

Tessema, G. A. *et al.* 2017. Trends and causes of maternal mortality in Ethiopia during 1990-2013: Findings from the Global Burden of Diseases study 2013.*BMC Public Health*. BMC Public Health. 17(1): 1–8. doi: 10.1186/s12889-017-4071-8.

THCU. 2013. Originally known as The Health Communication Unit, started in 1993 at the University of Toronto) moved to Public Health Ontario's Health, Promotion, Chronic Disease and Injury Prevention Department, At a glance: the eight steps to developing a healthy pub.

Thobejane, T. D. and Flora, T. 2016. An Exploration of Polygamous Marriages : A Worldview An Exploration of Polygamous Marriages : A Worldview. (December 2014). doi: 10.5901/mjss.2014.v5n27p1058.

Tiruneh, F. N., Chuang, K. Y. and Chuang, Y. C. 2017. Women's autonomy and maternal healthcare service utilization in Ethiopia.*BMC Health Services Research*. 17(1): 1–12. doi: 10.1186/s12913-017-2670-9.

Treacy, L., Bolkan, H. A. and Sagbakken, M. 2018. Distance, accessibility and costs . Decision- making during childbirth in rural Sierra Leone : A qualitative study: 1–17. doi: 10.18712/NSD-NSD2527-V1.Funding.

Tsawe, M. and Susuman, A. 2014. Determinants of access to and use of maternal health care services in the Eastern Cape, South Africa: a quantitative and qualitative investigation. *BMC Research Note.* 7(1): 723. doi: 10.1186/1756-0500-7-723.

Tsegay, R. *et al.* 2017. Determinant factors of home delivery among women in Northern Ethiopia: a case control study.*BMC Public Health*. 17(1):1–8. doi: 10.1186/s12889-017-4159-1.

Tsegay, Y. *et al.*2013. Determinants of antenatal and delivery care utilization in Tigray region, Ethiopia: A cross-sectional study.*International Journal for Equity in Health*, 12(1): 1–10. doi: 10.1186/1475-9276-12-30.

Turyakira, E. and Pettersson, K. O. 2012. Influence of Birth Preparedness , Decision-Making on Location of Birth and Assistance by Skilled Birth Attendants among Women in South-

Western Uganda', 7(4). doi: 10.1371/journal.pone.0035747.

Twinn. 1997. No Title An exploratory study examining the influence of translation on the validity and reliability of qualitative data in nursing research. *Journal of Advanced Nursing*, 26(2): 418–423.

Ugwu, N. U. and Kok, B. De .2015. Socio-cultural factors , gender roles and religious ideologies contributing to Caesarian-section refusal in Nigeria. Reproductive Health. 1–13. doi: 10.1186/s12978-015-0050-7.

UN. 2015a. Health-related Sustainable Development Goals targets.

UN. 2015b. The Millennium Development Goals Report. *United Nations*: 72. doi: 978-92-1-101320-7.

UNAIDS. 2010. An Introduction to Triangulation: 1–79.

UNDP. 2009. Handbook on Planning, Monitoring and Evaluating.*UNDP*: 1–232.

UNFPA. 2012. The social determinants of maternal death: 1–7.

UNICEF. 2013. Ethiopia - Maternal Health Brief', *Ethiopia- Maternal Health Brief*, (Hsdp Iv): 2010–2011.

USAID. 2012. AIDSTAR-One: Literature Review on Program Strategies and Models of Continuity of HIV/MNCH Care. (February).

USAID. 2014. MCHVision.pdf.crdownload.

Utz, B. *et al.*2013. Definitions and roles of a skilled birth attendant : a mapping exercise from four South-Asian countries. 92: 1063–1069. doi: 10.1111/aogs.12166.

Vallely, L. M. *et al.*2013. Exploring women's perspectives of access to care during pregnancy and childbirth : A qualitative study from rural Papua New Guinea.*Midwifery*. Elsevier. 29(10): 1222–1229. doi: 10.1016/j.midw.2013.03.011.

Van, S. *et al.* 2014. Missed opportunities for prevention of perinatal transmission of hepatitis B: A retrospective cohort study. *Canadian Journal of Gastroenterology and Hepatology*, 28(10): 525–528.

Vanckavi, A. *et al.* 2017. Assessment of radiographers' competences from the perspectives of radiographers and radiologists: a cross-sectional survey in. 1–10. doi: 10.1186/s12909-017-0863-x.

Vanclay, F. *et al.*2013. Principles for ethical research involving humans : ethical professional practice in impact assessment Part I. *Impact Assessment and Project Appraisal*. Taylor & Francis : 243–253. doi: 10.1080/14615517.2013.850307.

Vanlandingham, G. and Greene, R. 2014. Evidence-Based Policymaking: 2.

Vaus, D. D. 2001.*Research design in social science research London: Sage.*

Vemula, S. R. *et al.*2013. Use of food label information by urban consumers in India –a study among supermarket shoppers: 1–11. doi: 10.1017/S1368980013002231.

Vermaak, K. B. D. K. A. 2015. Factors Affecting Antenatal Care Utilization in South Sudan :

Evidence from 2010 South Sudan Household Survey. 1–69.

Villadsen, S. F. *et al.*2014. Antenatal care strengthening in Jimma, Ethiopia: A mixed-method needs assessment.*Journal of Environmental and Public Health*, 2014. doi: 10.1155/2014/945164.

Vos, A.S, Strydom, H.; Fouché, C.B. and Delport, C. S. L. 2005. Research at 3, grass roots for the social sciences and human service professions,*Edition., Publishers., Pretoria: Van Schaik*.

Vos, A.S.; Strydom, H.; Fouché, C.B. and Delport, C. S. L. 2011. Research at 4, Grass Roots: For the Social Sciences and Human Service Professions, *The Publishers., edition. Pretoria: Van Schaik*.

Wado, Y. D. 2013. Women's Autonomy and Reproductive Healthcare-Seeking Behavior in Ethiopia WP91. (91).

Wai, K. M. *et al.*2015. Are husbands involving in their spouses' utilization of maternal care services?: A cross-sectional study in Yangon, Myanmar', *PLoS ONE*, 10(12): 1–13. doi: 10.1371/journal.pone.0144135.

Weber, M. 2013. Why do women deliver in facilities, or not?*WHO South-East Asia Journal of Public Health*, 2(3): 129. doi: 10.4103/2224-3151.115828.

Whitaker K. 2012. Is Sierra Leone right to ban traditional birth attendants?*In: Blog PM, editor. Guardian. London: guardian.co.uk*.

White, D. *et al.*2013. The influence of intra familial power on maternal health care in Mali: Perspectives of women, men and mothers-in-law, *International Perspectives on Sexual and Reproductive Health*. doi: 10.1363/3905813.

WHO. 2007. 'The WHO Strategic Approach to strengthening sexual and reproductive health policies and programmes, *World Health Organization 2007*.

WHO. 2008a. Closing the gap in a generation. *Health equity through action on the social determinants.*

WHO. 2008b. Page 1 of 2 Backgrounder 3 : Key concepts: 1–2.

WHO. 2010. Health situation. *World Health Organization*. (Gtp Ii). 8–9. doi: 10.1017/CBO9781107415324.004.

WHO. 2011. Violence again Women: Global picture Health Response: 29.

WHO. 2012. Health Policy and Systems Research; A Methodology Reader.

WHO. 2014a. Framework for country action across sectors for health and health equity. (October): 1–25.

WHO. 2014b. Twelfth General Programme of Work 2014-2019: Not merely the absence of disease, *World Health Organization*: 72.

WHO. 2015a. Success Factors for Women's and Children's Health Bangladesh.

WHO. 2015b. Trends in Maternal Mortality : 1990 to 2015. World Health *Organization*. 32(5):

1–55. doi: ISBN 978 92 4 150363 1.

WHO *et al.* 2015. Trends in Maternal Mortality: 1990 to 2015: estimates by WHO, UNICEF, UNFPA, World Bank Group and the United Nations Population Division, *Organization*: 1–38. doi: ISBN 978 92 4 150363 1.

WHO. 2015c. WHO recommendations on health promotion interventions for maternal and newborn health.*World Health Organization. Offset Publication*, 20(1211): 94. doi: 10.1017/CBO9781107415324.004.

WHO. 2016a. Standards for improving quality of maternal and newborn care in health facilities. *WHO*: 73. doi: 978 92 4 151121 6.

WHO. 2016b. The Global Strategy for Women's, Children's and Adolescents' Health (2016-2030). *United Nations*: 108.

WHO. Sb. Health statistics and health information systems. [Online] Available at: http://www.who.int/healthinfo/statistics/indmaternalmortality/en/index.html [Accessed 21 February 2013]. *World Health Organization*.

Wilunda, C. *et al.* 2014. A qualitative study on barriers to utilisation of institutional delivery services in Moroto and Napak districts, Uganda : implications for programming'.

Wilunda, C. *et al.* 2015. Determinants of utilisation of antenatal care and skilled birth attendant at delivery in South West Shoa Zone, Ethiopia: A cross sectional study, *Reproductive Health*. Reproductive Health. 12(1): 1–12. doi: 10.1186/s12978-015-0067-y.

Wilunda, C. *et al.*2017. Barriers to utilisation of antenatal care services in South Sudan : a qualitative study in Rumbek North County. Reproductive Health: 1–10. doi: 10.1186/s12978-017-0327-0.

Wong, S. S. L. *et al.*2014. Unmet needs of patients with chronic obstructive pulmonary disease (COPD): a qualitative study on patients and doctors. *BMC Family Practice*. BMC Family Practice, 15(1): 1–8. doi: 10.1186/1471-2296-15-67.

Workineh, Y. G. and Hailu, D. A. 2014. Factors affecting utilization of postnatal care service in Jabitena district , Amhara region: Ethiopia. 2(3): 169–176. doi: 10.11648/j.sjph.20140203.15.

World Health Organization. 2017. *World Health Statistics 2017 : Monitoring Health for The SDGs*, *World Health Organization*. doi: 10.1017/CBO9781107415324.004.

World Health Organization. 2016. WHO Recommendation on Antenatal care for positive pregnancy experience. *WHO Recommendation on Antenatal care for positive pregnancy experience*: 152. doi: ISBN 978 92 4 154991 2.

World Health Organization. 2014. Sexual and reproductive health beyond 2014: equality, quality of care and accountability: position paper.

Yamin, A. E. and Maleche, A. 2017. Realizing Universal Health Coverage in East Africa : the relevance of human rights. BMC International Health and Human Rights: 1–10. doi:

10.1186/s12914-017-0128-0.

Yawson, A. E. *et al.*2014. Sex differences in perceived risk and testing experience of HIV in an urban fishing setting in Ghana.*International Journal for Equity in Health.* 13(1): 1–8. doi: 10.1186/s12939-014-0109-z.

Yaya, S., Bishwajit, G. and Ekholuenetale, M. 2017. Factors associated with the utilization of institutional delivery services in Bangladesh. *PLoS ONE*. 12(2): 1–14. doi: 10.1371/journal.pone.0171573.

Yew, V. *et al.*2014. Sociocultural determinants of health and illness : A theoretical inquiry. 1(1): 49–59.

Yilmaz, K. 2013. Comparison of Quantitative and Qualitative Research Traditions : epistemological, theoretical. 48(2).

Yin, R. K. 2012. A (very) brief refresher on the case study method, The*Applications of Case Study Research*: 3–20. doi: 10.1080/07388940701860318.

Yoshikawa, H. 2012. Design Methodology for Research and Development Strategy.

Yr, B. *et al.*2010. Determinants of skilled birth attendants for delivery in Nepal. 8(3).

Yugbaré Belemsaga, D. *et al.*2016. A cross-sectional mixed study of the opportunity to improve maternal postpartum care in reproductive, maternal, newborn, and child health services in the Kaya health district of Burkina Faso, *International Journal of Gynecology and Obstetrics*. International Federation of Gynecology and Obstetrics, 135: S20–S26. doi: 10.1016/j.ijgo.2016.08.005.

Zohrabi, M. 2013. Mixed Method Research: Instruments, Validity, Reliability and Reporting Findings.*Theory and Practice in Language Studies.*3(2): 254–262. doi: 10.4304/tpls.3.2.254-262.

Appendixes
Appendix A: Approval from University

UNISA university of south africa

RESEARCH ETHICS COMMITTEE: DEPARTMENT OF HEALTH STUDIES
REC-012714-039 (NHERC)

2 August 2017

HSHDC/701/2017
Mr IM Abdulahi
Student: 6196-880-3

Supervisor: Prof ON Makhubela-Nkondo
Qualification: Doctorate Harvard University
Joint Supervisor: -

Dear Mr IM Abdulahi

Decision: Ethics Approval

Name: Mr IM Abdulahi

Proposal: Socio-cultural determinants and missed opportunities of maternal health care in Ethiopia.

Qualification: DPCHS04

Thank you for the application for research ethics approval from the Research Ethics Committee: Department of Health Studies, for the above mentioned research. Final approval is granted from 2 August 2017 to 2 August 2019.

The application was reviewed in compliance with the Unisa Policy on Research Ethics by the Research Ethics Committee: Department of Health Studies on 2 August 2017.

The proposed research may now commence with the proviso that:

1) *The researcher/s will ensure that the research project adheres to the values and principles expressed in the UNISA Policy on Research Ethics.*

2) *Any adverse circumstance arising in the undertaking of the research project that is relevant to the ethicality of the study, as well as changes in the methodology, should be communicated in writing to the Research Ethics Review Committee, Department of Health Studies. An amended application could be requested if there are substantial changes from the existing proposal, especially if those changes affect any of the study-related risks for the research participants.*

University of South Africa
Preller Street, Muckleneuk Ridge, City of Tshwane
PO Box 392 UNISA 0003 South Africa
Telephone: +27 12 429 3111 Facsimile: +27 12 429 4150
www.unisa.ac.za

3) *The researcher will ensure that the research project adheres to any applicable national legislation, professional codes of conduct, institutional guidelines and scientific standards relevant to the specific field of study.*

4) *[Stipulate any reporting requirements if applicable].*

Note:
The reference numbers [top middle and right corner of this communiqué] should be clearly indicated on all forms of communication [e.g. Webmail, E-mail messages, letters] with the intended research participants, as well as with the Research Ethics Committee: Department of Health Studies.

Kind regards,

Prof JE Maritz
CHAIRPERSON
maritje@unisa.ac.za

Prof MM Moleki
ACADEMIC CHAIRPERSON
molekmm@unisa.ac.za

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PO Box 392 UNISA 0003 South Africa
Telephone: +27 12 429 3111 Facsimile: +27 12 429 4150
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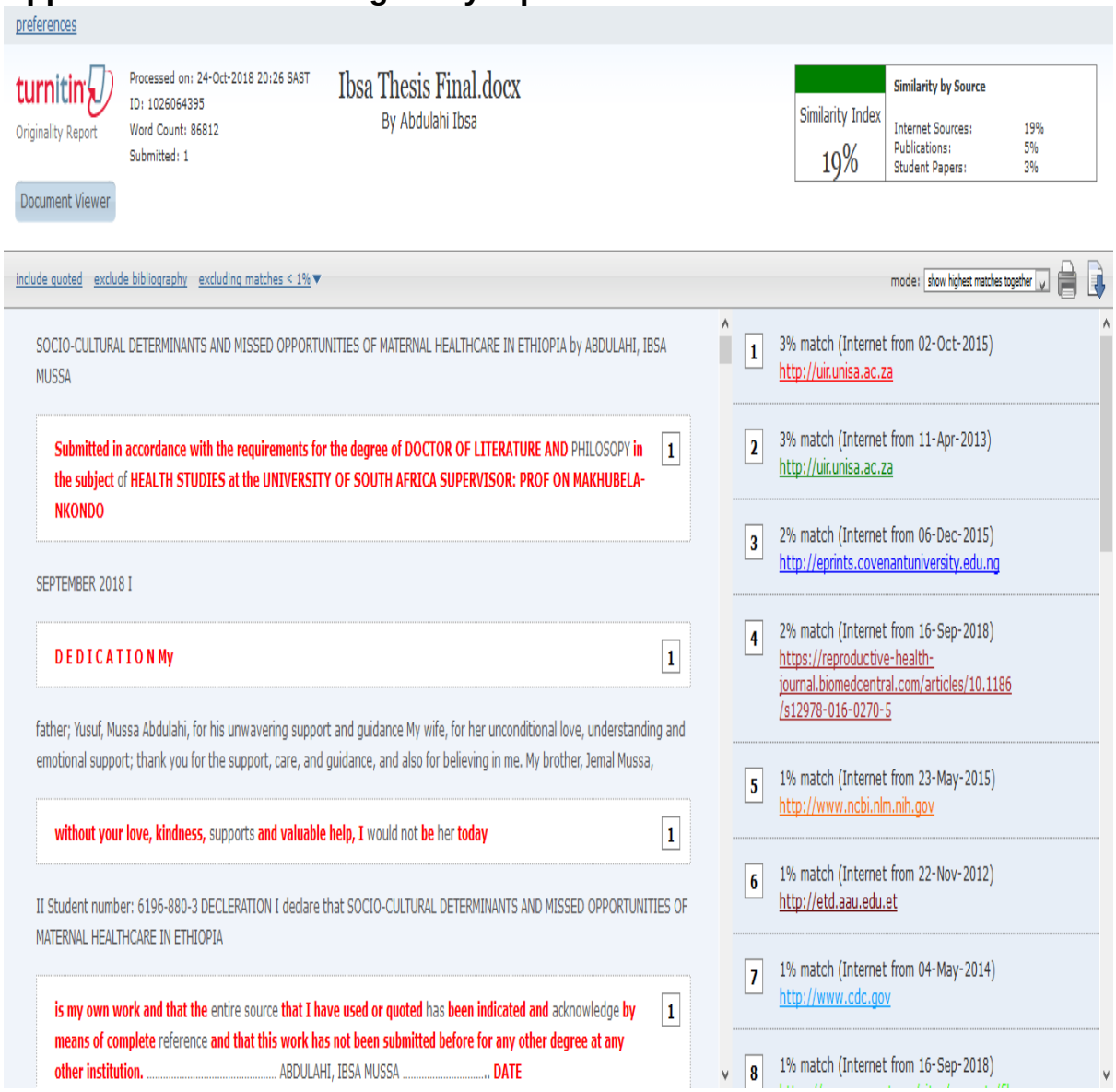
Appendix B: Turninit originality report



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SOCIO-CULTURAL DETERMINANTS AND MISSED OPPORTUNITIES OF MATERNAL HEALTHCARE IN ETHIOPIA by ABDULAHI, IBSA MUSSA

Submitted in accordance with the requirements for the degree of DOCTOR OF LITERATURE AND PHILOSOPY in the subject of HEALTH STUDIES at the UNIVERSITY OF SOUTH AFRICA SUPERVISOR: PROF ON MAKHUBELA-NKONDO

SEPTEMBER 2018 I

DEDICATION My

father; Yusuf, Mussa Abdulahi, for his unwavering support and guidance My wife, for her unconditional love, understanding and emotional support; thank you for the support, care, and guidance, and also for believing in me. My brother, Jemal Mussa,

without your love, kindness, supports and valuable help, I would not be her today

II Student number: 6196-880-3 DECLERATION I declare that SOCIO-CULTURAL DETERMINANTS AND MISSED OPPORTUNITIES OF MATERNAL HEALTHCARE IN ETHIOPIA

is my own work and that the entire source that I have used or quoted has been indicated and acknowledge by means of complete reference and that this work has not been submitted before for any other degree at any other institution. ..... ABDULAHI, IBSA MUSSA ..... DATE

1 3% match (Internet from 02-Oct-2015) http://uir.unisa.ac.za

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4 2% match (Internet from 16-Sep-2018) https://reproductive-health-journal.biomedcentral.com/articles/10.1186/s12978-016-0270-5

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Appendix C : Informed consent form for pregnant mother aged above 18 yrs

According World Health Organization(WHO) Maternal health refers to the "health of women during pregnancy, childbirth and the postpartum period. While motherhood is often a positive and fulfilling experience, for too many women it is associated with suffering, ill-health and even death".At the Millennium Summit in 2000, representatives of most countries agreed to reach eight Millennium Development Goals (MDGs) by 2015, among which were goals 5 on maternal mortality by three-quarters. These goals have not been met in low-resource regions, especially in Sub-Saharan Africa where the maternal mortality ratio declined by 45% between 1990 and 2015 (WHO 2015).

This is the reason I intend to explore the issues related to Maternal health for my Doctoral study project. The results will be used to determine areas necessary to improve the situation of maternal health especially in the most remote rural Women's. There is no risk of discomfort in sharing your information and you need not attach your name, surname, address or telephone number.

To participate in the study you will be required to respond to the questionnaire that will be provided to you by the researcher. If you do not understand feel free to ask and clarification will be made and questions will be answered to you by the language of your choice.

Participation is totally voluntary; you are under no obligation to participate in the study. You have the right to opt not to take part in the study without any penalties.

Researcher Mr Ibsa Mussa Abdulahi Date 12-06-2017

I confirm that I received and understand all the information regarding to this study. It was also explained to me that my participation is voluntary and that I may refuse to participate or give consent to the study without any penalty. I hereby freely consent to take part in this research study.

Signature of respondent	Signature of witness	Date
---	---	---

Appendix D: Informed consent form of pregnant mother aged less than 18 yrs

My name is Mr IM Abdulahi; I am a health professional working at Gara Mulata General Hospital as a Chief Executive Officer. I am conducting a research project to determine the socio-cultural and missed opportunities of maternal health care on the use of maternal health care utilization and importance of using health care facility on the outcome of maternal health. The study also include for women <18 year of age. I want to get your permission to have interview with the women under your supervision and also from the women.

If you assent; the interview will be conducted with integrity. The privacy of the women will be assured. The information will be kept confidential. The name will not appear and responses will not be linked to identifiers. No harm and you are entitled to:

The right to be informed

The right to refuse

If you agree to be interviewed, give honest answers

Withdraw even if you have signed this consent form.

Verbal consent

Guardian name _____

Signature _____

Witness

Name_____

Signature_____

Date _____

Appendix E: Research Request Letter to Gain Access to Research Site

To: - East Hararghe Health Office
Dear Sir/Madam

REQUEST PERMISSION TO CONDUCT RESEARCH

I am a Doctoral student of the University of South Africa, Department of Health Studies in the College of Human Sciences. I request your permission to gain access to the Women's and Health professional as for me to fulfil doctoral degree requirement on maternal health related research. The study will not be intrusive or invasive. Neither will any of the participants be harmed.

I will comply with ethical requirement throughout the research and confidentiality and privacy will be maintained as participants' identity will not be divulged nor identified.

I hope you will consider my request for permission to enter the research site and gain access to participants favourably.

Yours Sincerely

Mr Ibsa Mussa Abdulahi

Appendix F : Ethical Issue

Title of the project: "Socio-Cultural Determinants and Missed Opportunities of Maternal Health Care in East Hararghe, Oromia, Ethiopia."

Principal **Investigator**: Abdulahi, Ibsa Mussa

Supervisor: ProfessorO.N. Makhubela-Nkondo

Introduction: Maternal health refers to the "health of women during pregnancy, childbirth and the postpartum period. While motherhood is often a positive and fulfilling experience, for too many women it is associated with suffering, ill-health and even death". At the Millennium Summit in 2000, representatives of most countries agreed to reach eight Millennium Development Goals (MDGs) by 2015, among which were goals 5 on maternal mortality by three-quarters. These goals have not been met in low-resource regions, especially in Sub-Saharan Africa where the maternal mortality ratio declined by 45% between 1990 and 2015 (WHO 2015).

Purpose: The purpose of these studies is to examine the socio-cultural determinants and missed opportunities of maternal health care in East Hararghe District, Ethiopia.

Procedure and Participation: The method of the research is triangulation method of data collection was adopted. While the main instrument used for data collection was the structured questionnaire, qualitative method, specifically in-depth interview method was employed to elicit additional relevant information that would help us to complement the quantitative information earlier collected from respondents through structured questionnaire from the key informants. Bivariate and multivariate data analysis will be performed using SPSS version 24.0 and Atlas version 7.1.4 statistical software package.

Confidentiality: to establish secured safeguards of the confidentiality of research data, the principal investigator will use codes during data collection period instead of using names. No person shall access the data except the PI and the supervisor. The use of information for any purpose other than that to which participants consented is unethical to the participants. The information you provide is not disclosed in the way it identified your personal characteristics and privacy. After the research defence and final work is approved by the department of health studies, the original data questionnaire will be burned in secure manner.

Benefit: The research does not have a short term financial, health care and capacity building benefit to the research participant as an individual or as a group but in the long run it will help the concerned organization and policy makers to have a policy consideration and direction and formulation of strategy and design of maternal and new-born health programs based on the recommendations and the findings. Moreover the research work will help as a base line data for other researches in the field.

Risk: The proposed research does not have any physical harm, social discrimination, psychological trauma and economic loss.

Inducement, incentive and Compensation: This study process has no any form of inducement, coercion and the study does not bring any risks that incur compensation.

Results Dissemination: The researcher is responsible for dissemination of findings moreover fully accountable to provide feedback to the health facilities under study, Woreda Health office and to the policy makers. In addition publication of the findings in peer reviewed journal will also be considered with maximum effort.

Freedom to withdraw: If you want to participant in the study, you have full right to with draw from the study any time you wish. This would have no effect at all on your health benefit from the health facility moreover nobody will enforce you to explain the reason of withdrawal.

Ethical approval: The protocol of the study was submitted to the Higher Degrees Committees in Departments of health studies, College of Human Sciences and the committees have granted a written approval letter for the ethical soundness of the study.

Person to Contact: The participant has the right to ask information that is not clear about the research context and content before and or during the research work. You can contact the principal investigator.

ABDULAHI, IBSA MUSSA: +251913213764

Appendix G: Questionnaire for Quantitative

Questionnaire for community based survey on socio-cultural determinants and missed opportunities of maternal health care services in Grawa, Chelenko and Haramaya Woreda

Verbal consent

Greetings

Hello! My name is_____, my work is data collectors to Mr.Ibsa Mussa Abdulahi who study his PHD in University of South Africa Department of Health Studies. The title of our study is Socio-Cultural Determinant and Missed Opportunity of Maternal Health Care in Ethiopia. We are conducting a study of maternal health care during pregnancy, place of delivery and assistances during delivery. You are kindly requested to be included in the study, which will have importance in improving maternal and child health services. The interview will take about 50 minutes. No information concerning you, as individual will be passed to another individual or institution without your agreement. Your participation is voluntary and you have the right to not participate fully or partially. If you agree to be included in the study I will start my questions by asking general identification points. Only honest answers would contribute to improvement of health planning.

Address: - (NHERC) TEL: +27124293111/+27124294150; Researcher; Ibsa Mussa: Tele +251913213764

Voluntarily Information

The objective of the study is to explain the effect of maternal health care on maternal disability, Morbidity and mortality; I get a chance to ask and answer Question clearly. So I want to decide and participate on this study with confidence and voluntary. According to my understanding, in every time, I can stop the interview and there is no any risk met on me regarding the research now and on the future.

Signature of Respondent---------- Date/----------/----------/--------

Signature of Interviewer ---------- Date/----------/----------/--------

Part I: General information of House Hold and Maternal Status

Before starting to ask a Question, Fill the Question FSO1-FS13 on blank space			Skip
FS01	Date of interview	Date ☐☐ Month ☐☐ Year ☐☐☐☐	
FS02	Starting time of interview	☐☐☐☐	
FS03	Ending time of interview	☐☐☐☐	
FS04	Code of HH	☐☐☐☐☐☐☐	
Fs05	Interviewer name	_____	
FS06	Respondent name	Mother.....…….....…1 Maid.....…….....2 Mother in low…….…….....3 Father in low.....…….....4	

FS07	Village/Kebele	Name ______________________ Code ☐☐	
FS08	House No	☐☐☐☐☐☐☐	
FS09	Is there mothers have child less than five years?	Yes……………………………………………………….1 No……………………………………………………2	
FS10	If Q number FS10 yes, Can we Discuss with her?	Yes……………………………………………………….1 No……………………………………………………2	If no go to next house
FS11	How long have you been in this town	Less than one year…………………………………….....1 Greater than one year..……………………………….......2	
FS12	Native language of respondent?	Afan Oromo……………………………………………...1 Amharic...…………………………………………….....2 Others...3	
FS13	How much children less than five year?	One.…………………………………………………......1 Two…………………………………………………......2 Three..……………………………………………….....3 Four.………………………………………………......4 Five.……………………………………………………..5	
FS14	Problems with respondent?	Date and Time of appointment; 1.____________________________ 2.____________________________ 3.____________________________ Not at home …..………………………………............. 1 Refuse.……….…………………………………..…......…2 Parity ……….…………………………………..................3 Incapacitated ....………………………………..............…4 Incomplete...5	

Sample code of Woreda Kebeles in East Hararghe Zone					
Grawa Woreda Kebele	Code	Haramaya Woreda Kebele	Code	Metta Woreda Kebele	Code
Grawa	01	Bate	05	Chelenko	09
Lafto	02	Finkile	06	kulubi	10
Oromitu	03	Karo Dada	07	Duse	11
Dogu	04	Adelee	08	Bikiye	12

Part II: Questionnaire on identification Socio demographic and maternal status of the respondents -SDM

No	Question	Choice and Answers	Skip
SDM201	Maternal age	Write age in year ☐☐	
SDM202	What is the highest level of schooling you have ever attended?	Never attended………..……………………..1 Grade 1-4....………………….……..….... 2 Grade 5-8………….………….…..….... 3 Secondary school....……………....……... 4 Preparatory.…...……….…………………5 College/University....……..………..……..6 Other...……..…………………………..……..88	

SDM203	What is your occupation?	Civil servant……………………………… ....1 NGO.................……..…………….......2 Farmers...……………………..……………...3 House wife...………………………….......4 Merchant...5 Student..6 Maid..7 Other ……………………………….........88	
SDM204	What is your marital status?	Married…….....…..…………………….…….1 Divorced……...…………………….....…..2 Widowed……..…..……………………….....3 Never married...….........………………..........4 Separated..5 Other...………….………..........................88	
SDM205	What ethnic group do you belong?	Oromo……....……………....………………....1 Amhara……,,…………….........…………..2 Gurage……….……………..…………………3 Somale…….........…………………..……….4 Tigre..5 Other...…..……..……………………………88	
SDM206	What is your religion?	Muslim...…….…..……………….……..……1 Orthodox.............……..……..……..……2 Catholic..................………..……….…..3 Protestant...4 Wakefata..5 Other…………...….…….…………….... 88	
SDM207	What is the average family income per months?	Qr. < 2,500 below..................................1 Qr. 2,501 - 7,000.....................................2 Qr. >7,000 above...................................3	
SDM208	You are member of Insurance?	Yes..1 No ....2 don't know..........……………………99 Other....……….…...…………………88	
SDM209	How many Children do you have?	One...1 Two...2 Three...3 Four...4 Five...5 More than five............................6	
SDM210	Age of mother at first pregnancy?	Write age by year	
SDM211	Age of mother at last Pregnancy (For mothers who have more than one child)?	Write age by year	
SDM212	Number of pregnancy, Including abortion before 7 months?	All pregnancy including Abortion	
SDM213	Number of delivery (Including Still birth after)?	Write total number of Still birth and Live birth	
SDM214	Number of male live births?	Write total number of male live birth	
SDM215	Number of female live births?	Write total number of female live birth	
SDM216	Total number of children in the house hold?	Write total number in the house hold	
SDM217	Number of still births?	Write total number of still births	
SDM218	Number of abortions?	Write total number of abortion	

SDM219	How many children are live outside this house?	Write all children outside this house	
SDM220	How many children live in the house?	Write all children lives in the house	
SDM221	Where do you deliver your last child?	Home……………….…………..….....1 Health Facility......………………........….2 Other...…………..…………………....….88	
SDM222	What is your mode of previous deliver?	Normal delivery (SVD)…………..….........1 Caesarean section (CS)……………….…..2 I don't know …………………..……………99 Other...……………...……………….……...88	
SDM223	Do you have ever made female genital mutilation/ cutting?	Yes…………………………....………………1 No.……………………………….……….……2	
SDM224	How many wife your husband have?	One……………………..........................1 Two……………………….…………….…..2 Three..….……………….…………….……..3 Four.……….……………..………………......4	
SDM225	Who have full authority on the house hold resource?	Wife………….........……..........................1 Husband.…………………….........…........2 Both of them have equal right...................3	
SDM226	Is there any violence by your husband?	yes……….…………………...........………1 No…………...………………………..……..2	
SDM227	Your husband gives special support during your pregnancy, delivery and post deliver time?	Yes………….……………….........………1 No………………....…...…………………...2	

Part III: Questionnaire on identification of the Family Head/male respondents

No	Question	Choice and Answers	Skip
SDF228	Age of husband?	Write age by years	
SDF229	What is the highest level of schooling you have ever attended?	Never attended…………………..……………………….1 Grade 1-4....…………………………………….. 2 Grade 5-8…………….……………………...... 3 Secondary school....………………..…………… 4 Preparatory.…....………………...……………....…5 College/University....………………..………………..6 Other...……..……………………………………....88	
SDF230	What is your occupation?	Civil servant.…………………………………......1 NGO.................……………………..………..…....2 Farmers...……………………..........……........….3 House wife...……………………..……........…......4 Merchant...5 Student..6 Maid..7 Other ………………………….............…........88	
SDF231	What ethnic group do you belong?	Oromo……...………....………..,……………......1 Amhara…………………………………..…………2 Gurage……….………………...…...………….….3 Somale……........………………...……………...4 Tigre..5 Other...….………….………...……............…….88	
SDF232	What is your religion?	Muslim..……..…..…………………………........…1 Orthodox...........……..………………..……........…2 Catholic..................………..…………….............3 Protestant..4 Wakefata...5	

		Other…………..........……..……………..….....…..88	

Part V. Questionnaire on sociodémographiques characteristics-SES

No	Question	Choice and Answers	Skip
SES233	Types of house	Both wall and floor made from cement....……....…………..1 Bricks…………..………..……………………..…..................2 Wood and mud………………..……………….……………..3 Only by wood……………………..…..………….……………..4	
SES234	Kitchen is tied with house?	Yes……………………………………………..………………1 No...……………………………………………………………2	
SES235	Do you have farm land?	No...………………...………………………………...…………1 Yes, "Qindii" (1/4 hectare) ……………………………..........2 ☐☐	
SES236	Do you have an Ox (Write in number)?	No…………………..…………………..………......................1 Yes, Ox in number...………………………..………………....2 ☐☐	
SES237	Do you have a Cow? (Write in number)	No…………………….…………………………………………1 Yes, Cow in number……………………………….....…...….2 ☐☐	
SES238	Do you have electric light?	Yes…………………...…………………………..……………..1 No……………………………………..…………….............2	
SES239	Where do you get water?	Open place……………………………………….…...........1 Tap water...……………………………………………….......2	
SES240	What type of Toilet do you have?	No, Use open defecate...…………….…………………........1 Yes, Use open hole ……….…..…………………….……...2 Yes, Use Closed whole. ……………….…….…………... 3 Yes, Use closed hole that have ventilation tube…....……....4 Yes, Use that have running Water………………....……....5	

Part VI: Questionnaire on ANC (Circle the *answer*) I want to ask a Question about ANC

No	Question	Choice and Answers	Skip
DSQ241	What is the number of people who live usually in this household?	☐☐	
DSQ242	Did you plan your current pregnancy?	Yes...1 No..2	
DQS243	From where do you hear a pregnant woman could get ANC?	Health institution....................................1 TBA...2 Relatives/friends...................................3 CHA...4 Others specify.....................................88	
DQS244	Where do you hear about the sources of ANC services?	Heath institution....................................1 Radio/TV...2 TBA...3 Relatives...4 CHA...5 Women's group.....................................6 others specify.....................................88	
DQS245	What do you think would be the benefits of ANC?	Maternal health.....................................1 Child health...2 Both...3 Don't know..99 Others specify.....................................88	

DQS246	Did you go to health institution for ANC check-up while you were pregnant?	Yes.....1 No (Skip to Q 282).....2	
DQS247	If yes, what was the total number of visits?	Once.....1 Two.....2 Three.....3 More than Four.....4 Don't know.....99	
DQS248	If yes at what gestational age did you go?	1-3 Months.....1 4-6 Months.....2 7-9 Months.....3 Don't know.....99	
DQS249	Where the health workers respectful?	Yes.....1 No.....2	
DQS250	How long was the time you spent in waiting to get ANC services?	Short time.....1 Average.....2 Long-time.....3	
DQS251	Do you think that waiting time was a problem while you were attending ANC?	Yes always.....1 No.....2 Don't know.....99	
DQS252	What is the main reason you initiated for ANC follow up?	Health Problems.....1 To start regular check-up.....2 Other specify …….. 88	
DQS253	If you attended ANC, was health education given during each visit?	Yes.....1 No.....2 Don't know.....99	
DQS254	If health education was given, on what topic?	Antenatal care.....1 Family planning.....2 Baby care.....3 Breastfeeding.....4 Other specify .....88 Don't know.....99	
DQS255	Did you think that lack of privacy was problem at Antenatal care ?	Yes.....1 No.....2 Don't know.....99	
DQS256	What is you're feeling about the quality of Antenatal care given?	Good.....1 Satisfactory.....2 Poor.....3	
DQS257	Do you have confidence on the service provided at that health institution?	Yes.....1 No.....2 Don't know.....99	
DQS258	How do you rank the behavior of health workers providing Antenatal care services?	Very Good.....1 Good.....2 Fair.....3 Bad.....4	
DQS250	How do you feel about the distance from your home to the nearest health institution?	Very close (<5-km).....1 Average (5-25-km).....2 Too far (>25-km).....3	
DQS260	How long does it take to travel from your home to the nearest health institution?	Write by Hours and minutes ☐☐	
DQS261	If you went for Antenatal care check-ups to which health institution did you go?	Hospital.....1 Health Center.....2 Health Post.....3 Other Specify.....…….. 88	
DQS262	Why did you go to that particular health institution? (Multiple response is possible)	Close to where I live.....1 Little or no expense.....2 B/se of health workers is best ……3 Convenient time of services.....4	

		High quality of services.....5 Other specify……..……. .88	
DQS263	What health services did you receive when you visited the health institution during your pregnancy? (multiple responses)	Physical examination (including weight, blood pressure, heart rate.....1 Gynaecological examination.....2 Ultrasound .....3 HIV/STD testing .....4 Blood tests .....5 Nutritional supplements .....6 Tetanus vaccine 7	
DQS264	Where any complications detected during your pregnancy?	Yes.....1 No (Skip to Q-266) 2	
DQS265	Were you referred to a secondary hospital for treatment of these complications?	Yes.....1 No..... 2	
DQS266	Was Malaria was tasted each time you went for Antenatal care?	Yes always.....1 Not.....2 Don't know 99	
DQS267	Was blood pressure measured each time you went for Antenatal care?	Yes always.....1 Not.....2 Don't know 99	
DQS268	Was Cardiovascular Disease examined each time you went for Antenatal care?	Yes always.....1 Not.....2 Don't know 99	
DQS269	Was Syphilis tasted each time you went for Antenatal care?	Yes always.....1 Not.....2 Don't know 99	
DQS270	Was obesity checked each time you went for Antenatal care?	Yes always.....1 Not.....2 Don't know 99	
DQS271	If you went for Antenatal care check-ups have you ever an injection on the arm to prevent against Tetanus?	Yes.....1 No (Skip to Q-.274).....2	
DQS272	If yes, how many times have you received such injections?	Once.....1 Two.....2 Three.....3 Four.....4	
DQS273	Did you have a vaccination card/paper where Tetanus injections have been recorded? If yes, may I see it please?	Yes seen.....1 Not seen.....2 No card/paper.....3	
DQS274	Was blood pressure measured each time you went for Antenatal care?	Yes always.....1 Not.....2 Don't know 99	
QQS275	If you attended Antenatal care, have you been weighed during each visit?	Yes always.....1 Not.....2 Don't know 99	
DQS276	Was laboratory examination done in the Antenatal care clinic? (Blood, urine, stool…).	Yes always.....1 Not.....2 Don't know 99	
DQS277	Was physical examination done in the Antenatal care clinic during each visit?	Yes always.....1 Not.....2 Don't know 99	
DQS278	Was your height measured at the Antenatal care?	Yes always.....1 Not.....2 Don't know 99	
DQS279	Did you ever pay for Antenatal care?	Yes always.....1 No (Skip to Q 282).....2	

DQS280	If yes, how do you feel about the payment for Antenatal care?	Unaffordable.....1 Fair.....2 Very small.....3	
DQS281	How much on average did you pay for Antenatal care service per visit?	Write in Birr ☐☐☐☐	
DQS282	If you did not attend Antenatal care? Why not? (Multiple response) **(Don't read the choices)	No or little knowledge about Antenatal care clinics.....1 Afraid because of Young age .....2 Being in a state of good health.....3 Too busy to attend Antenatal care clinics.....4 Bad attitude of Medical Personnel…...5 Expenses for Antenatal care clinics are Unaffordable.....6 Antenatal care clinic too far from my home?.....7 Waiting time is too long at Antenatal care .....;.....8 Attending to TBA.....9 Husband disapproval.....10 Poor quality of the services .....11 Because of Taboo.....12 Antenatal care attendance is useless...13	

Note: If at least one of the answers in VI "Yes", Part VII Question will be continues. But if all of the answers are ''No'', apologize them and transfer to the next house.

Part VII. **Respondent's knowledge, illness experiences, and perceived susceptibility to pregnancy related health problems**

No	Question	Choice and Answers	Skip
DPQ283	Should healthy pregnant women attend Antenatal care clinics?	Yes.....1 No (Skip to Q.-285).....2	
DPQ284	If yes at what month/gestational age should a pregnant woman attend Antenatal care?	1-3 Months.....1 4-6 Months.....2 7-9 Months.....3 Don't know.....99	
DPQ285	Do you know danger sign related to pregnancy?	Yes.....1 No (Skip to Q.-287).....2	
DPQ286	If yes, can you mention some of them? (More than one answer is possible)	Persistent vomiting.....1 Anaemia.....2 Leg swelling .....3 Headache.....4 Vaginal bleeding.....5 Hypertension.....6 Seizure .....7 Abnormal fetal position.....8 Obstructed /pronged labour.....9 Retained placenta.....10 Others.....88	
DPQ287	Did you experience a health problem during the last pregnancy?	Yes .....1 No.....2 Don't know.....99	
DPQ288	Did you think of developing danger sign during pregnancy?	Yes .....1 No.....2	
DPQ289	What were your husbands or partner's attitude towards Antenatal care attendance?	Positive.....1 Negative.....2 Don't know.....99	

Part IX: Questions on the choices of delivery and assistances during delivery, -MSU (Circle on Answer)

No	Question	Choice and Answers	Skip
MSU290	Where did you deliver your last baby?	Hospital .....1 Health center.....2 Health Post.....3 Home.....4 Others specify …….....….88	
MSU291	Why did you want to deliver your baby in that particular place? (If in a health institution)	Close to where I live.....1 Little or no expense.....2 Good approach of health worker….3 Convenient time of services…….....4 High quality of services.....5 Other specify…….....……...88	
MSU292	If you delivered at home. Why? (More than one answer is possible)	Expenses for delivery at health institution is unaffordable.....1 Dislike behaviours of health workers at health institution.....2 Wish to deliver at home where relatives are nearby.....3 More trust on TBAs/relatives than health workers at health institution……....4 Others specify.....88	
MSU293	If you delivered at home who assisted you during delivery?	Health Workers.....1 TBA.....2 Relatives/friends.....3 Neighbours'.....4 No one.....5 Others specify.....88	
MSU294	Which health institution do you prefer?	Governmental.....1 Non-Governmental.....2	
MSU295	If you did not use a government health institution, what was the primary reason?	Service not satisfactory……...1 Long waiting periods .....2 Doctors are not available……....3 Medicines are not available…..…..4 Long distance .....5 Treatment is costly.....6	
MSU296	Which mode of transport do you use to go to the government primary health clinic?	Walking.....1 Ambulance.....2 Public transportation.....3 Own Car .....4 Animals.....5	
MSU297	What was the average amount of time that you waited to see medical staff when you visited the clinic?	Less than 30 min.....1 30 min. to 1 hour.....2 1 hour to 1 ½ hours .....3 1 ½ to 2 hours .....4 More than 2 hours.....5	
MSU298	During delivery, were you attended by a skilled birth attendant (doctor, nurse, midwife, or Health Extension)?	Yes .....1 No.....2	
MSU299	Who were you attended by?	Doctor .....1 Nurse .....2 Midwife .....3 Health Extension.....4	
MSU300	How satisfied were you with the care you received from the skilled birth	Completely Satisfied …….....1 Partially Satisfied 2	

	attendant?	Neither satisfied nor dissatisfied...3 Dissatisfied 4	
MSU301	Did you experience any complications during delivery?	Yes.....1 No (Skip to Q.305) 2	
MSU302	Did the primary clinic provide emergency care for these complications?	Yes .....1 No 2	
MSU303	Were you taken to a secondary hospital for emergency care?	Yes ....1 No 2	
MSU304	What was the primary reason you did not receive emergency care?	No skilled birth attendant.....1 Necessary drugs unavailable.....2 Necessary medical supplies Equipment unavailable .....3 No transport to secondary hospital .....4 Other specify.....88	
MSU305	Did you receive medical care after delivery?	Yes.....1 No 2	
MSU306	How many times did you visit the clinic after delivery?	1 to 2 visits .....1 More than 2 visits…….....2	
MSU307	What health services did you receive when you visited the clinic after your delivery? (multiple responses)	Physical examination .....1 Counselling on breastfeeding.....2 Contraceptive.....3 Nutritional supplements.....4 Blood test for anaemia .....5 Information on warning signs of problems 6	
MSU308	Did you experience any problems after your delivery?	Yes.....1 No..... 2	
MSU309	Do you experience high bleeding during delivery (PPH)?	Yes..... 1 No..... 2	
MSU310	Did you receive a referral to a secondary hospital?	Yes.....1 No..... 2	
MSU311	Overall, how satisfied were you with the maternal health services you received?	Completely satisfied .....1 Partially satisfied .....2 Dissatisfied.....3	

If you have any comment writes down here_____

The End

Thanks. If somebody may be you ask a question to cross check this work, I again ask you give the same support to him/her.

Time of interview finished _____

Thank You!!!

Appendix H: Focus group discussion guide

Introduction

Good morning and thank you all for coming.

My name is IbsaMussa My colleagues near to me are----------. We came from the East Hararghe Health Bureau.

After we conduct some brief introduction, we will be talking about several different issues. We will be asking you questions about your overall experience with the maternal healthcare services in your locality and questions pertaining to pregnancy related health problems, preferences to place of delivery and Socio-cultural factors influencing utilization of the available health services. Then, we will conclude the session by asking you for your recommendations on how such program might be implemented in your community in any way in the future. Would you be willing to participate in the discussion? If yes, proceed, if no, thank and stop the discussion. Name of the moderator ---------- ------- Sign----------

(Signature of the moderator certifies that consent has been obtained verbally). Date---------

Time----------.

Preparation

Topic; Community perception of Socio-cultural Determinants and missed opportunity of maternal healthcare services

Target audience: pregnant women, husbands, religious & community leaders and health workers.

Objective of the discussion

- identify the social factors that induced the medical proximate determinants of maternal health;
- explore the cultural beliefs and stereotypes that are associated with maternal health;
- examine how role conflict influences maternal health;
- Develop Procedure Manual and Guidelines regarding Maternal Healthcare.

Description of the participants

A total of twenty four focus groups, each comprising a minimum of six and a maximum of eight participants will be involved.

The selection criteria and the targeted audiences

Residence, Pregnant women, Health workers Religious & community leaders Husbands

Group1 Grawa town Group1 Group 1 Group2 Group 2 Group 2 Group 1

Description of the focus group

The participant and the facilitator will sit in a circle or around a table for the discussion. The facilitator will begin the session by introducing himself and explain the purpose of the focus group. The focus group meeting will last about 60 to 90 minutes.

Potential use of data

The gathering of this information will have an effort to gain further insight about underutilization of maternal health care services among pregnant women in the District.

Ground rules

Issue of confidentiality

Please be assured that any information collected here is strictly confidential. The staff of research and other participants will not directly share the information in a way that would reveal an individual's personal identity.

Consent for participation and tape-recording

At this point it is important that we obtain your consent for conducting the session. Understand that this is more for your protection than anything else.

Read consent form out loud to the group:

"Your remaining in the session indicates that you voluntarily agree to participate in this discussion program.You have the right to refuse to answer any questions and to end the discussion if you find it necessary to do so. For the sake of accuracy and efficiency, we will take notes and tape recording these sessions, unless any one has any objections."

Role of moderator and note taker

The moderator will be in charge of facilitating the discussion .The moderator will bring the discussion back to the topic at hand should it go beyond the main issues. The moderator will not give any indication (verbal or physical) that would encourage certain types of comments or discourage other types of comments.

In short, the moderator will guide the discussion when necessary, with carefully not to lead the discussion. It is our role to facilitate, but your role to tell us what you think. The note taker will have the sole responsibility of capturing the sessions accurately as possible. This will include not only participants' responses, but also nonverbal actions, physical environment, atmosphere of the session, as well as other vital characteristics of the session.

Importance of total group

In this group everybody should feel free to talk. Each and every opinion is important and wanted. It is very important that all the people in the group get a chance to express their opinions.

Agreement to disagree

In this group there are no right or wrong answers. Everybody should express the opinions or attitude pertinent to him or her. When you express your opinions you are encouraged to be honest in your views of the pregnancy and delivery related problems and preventive programs (especially antenatal and institutional delivery care services). We want you to focus your comments on the program and not toward each other or members of the staff.

FGD topic guide

Theme 1 Introduction

At this point, we would like to ask you to introduce yourself to the rest of the group.

Let us start with the research team (Name, age, education status) and each of you please tell me your name, how long you have lived in this area and your job.

Theme 2.Warm up questions

1. How preference and attitude of women affect place of delivery?

1.1. Who can tell us about is delivery care?

1.2. Who can tell us about delivery care services?

1.3. Who would like to tell us dangerous maternal health problems related to pregnancy and childbirth?

1.4 What are the causes?
1.5 What are the consequences?
1.6 What are the prevention methods?

Probes
1. Would you explain further?
2. Would you give me an example?
3. Has anyone else had similar experience?
4. Is there anything else?
5.”I don’t understand.”

Theme 3. How Age of the mother, parity, and number of living children in the house affect maternal health care services?

Probes 1 would you explain further?
2. Would you give me an example?
3. Has anyone else had similar experience?
4. Is there anything else?
5.”I don’t understand.”

3. What access of health service affects maternal health care services in your area (information, facility, affordability, education, transportation and distance)?

Probes
1.Would you explain further?
2. Would you give me an example?
3. Has anyone else had similar experience?
4. Is there anything else?
5.”I don’t understand.”

4. What is impact of family members Autonomy on maternal health care services?

Probes
1.Would you explain further?
2. Would you give me an example?
3. Has anyone else had similar experience?
4. Is there anything else?
5.”I don’t understand.”

5. What is impact of Gender, Religion, Cultural and traditional practices on maternal health care services?

Probes
1.Would you explain further?
2. Would you give me an example?
3. Has anyone else had similar experience?
4. Is there anything else?
5.”I don’t understand.”

6. What is the impact of Health care Providers Behaviors and skill on maternal health care services?

Probes

1.Would you explain further?

2. Would you give me an example?
3. Has anyone else had similar experience?
4. Is there anything else?
5.”I don’t understand.”

7. What is Privacy and confidentiality of mother affect maternal health care?

Probe

1.Would you explain more?
2. Would you give me example an example?
3. Anyone else similar experiences
4. Is there anything else?
5.”I don’t understand.”

8.How season and planned time affect labour and delivery?

1. Would you explain more?
2. Would you give me example an example?
3. Anyone else similar experiences
4. Is there anything else?
5.”I don’t understand.”

Ending questions

Are there any issues, questions, comments that you would like to raise or points to you wanted to add?

Debriefing

I would like to thank you for your participation. I also want to restate that what you have shared with us is confidential. No part of our discussion that includes names or other identifying information will be used in any reports, displays or other publicly accessible media coming from this research**.** Finally, I want to provide you with a chance to ask any questions that you might have about this research. Do you have any questions for me?

“Thank You”