COMMUNITY PERSPECTIVES AND MATERNAL HEALTH PROGRAMME UPTAKE: THE SIDAMA REGION OF ETHIOPIA

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Community Perspectives and Maternal Health Programme Uptake: The Sidama Region of Ethiopia

By

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DECLARATION

I solemnly declare that 'Community Perspectives and Maternal Health Programme Uptake: The Sidama Region of Ethiopia', is my own work carried out during the course of my study under the supervision and guidance of Dr Liela Groenewald and all the information sources used in the study were acknowledged through complete references.

14 January 2026

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ABSTRACT

This thesis investigates the complex factors influencing maternal healthcare service utilisation in the Sidama region of Ethiopia, where preventable complications remain major contributors to elevated levels of maternal mortality. A qualitative approach successfully delivered rich and nuanced data collected among a diverse group of participants, including mothers and members of their communities, as well as health professionals.

The research offers a comprehensive analysis of how systemic barriers, access to resources, health-facility-related factors, social norms, cultural beliefs, and individual perspectives interact to shape maternal health-seeking behaviour in a resource constrained rural context. Poor transportation, unreliable electricity, and weak referral systems restrict access, while shortages of essential supplies, hidden costs, and facility-based experiences erode trust in the formal health system. Together with cultural preferences and social norms, these factors deter health service uptake, and interrupt continuity across antenatal, delivery, and postpartum care.

A major contribution of the study lies in showing how structural failures are experienced relationally: women's trust declines when promised referrals, transport, or respectful treatment do not materialise. Intra-household power dynamics, particularly the authority of husbands and mothers-in-law, further constrain women's autonomy. The findings demonstrate that late initiation of antenatal care reduces the likelihood of skilled delivery and postpartum follow-up, while privacy concerns, cultural preferences (warmth during labour, prayer, traditional rituals), and a strong reliance on traditional birth attendants significantly deter facility deliveries.

Both the Theory of Planned Behaviour, and the Socio-Ecological Model, in isolation accounted inadequately for these factors. Drawing on the work of Lee et al (2017), the thesis proposes an adaptation of these frameworks culminating in an integrated, context-sensitive conceptual framework. This framework highlights the importance of multi-level interventions that address institutional challenges such as inadequate infrastructure and disrespectful care practices, engage cultural norms, and promote women's autonomy.

The thesis argues that improved maternal health outcomes require holistic strategies that go beyond service expansion to address the layered systemic, social, cultural, and material realities faced by women in rural Ethiopia, and provides a refined, context-sensitive framework to guide more effective maternal health interventions in low-resource settings.

Keywords

Maternal healthcare, healthcare access, traditional birth attendants, infrastructure, respectful care, family influence, Socio-Ecological Model, qualitative research, Sidama, Ethiopia

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GLOSSARY

Antenatal care (ANC) services	ANC refers to the services provided by health professionals to pregnant women during pregnancy. The 2016 WHO ANC model recommends pregnant women should have a minimum of eight ANC contacts to ensure the best health of both mother and baby; with the first contact scheduled to be provided in the first trimester, two contacts in the second trimester, and the remaining five contacts in the third trimester (WHO, 2018a).
Birr	Birr is the national currency unit of Ethiopia.
District	District is the third administrative division in the Federal Democratic Republic of Ethiopia.
Health Developmental Army (HDA)	The HDA is a collaborative network of 25 to 30 women of neighbouring households who are divided into 5 sub-groups called one-to-five network, which is comprised of 6 members each, a leader and 5 members.
Health Extension Programme (HEP)	The HEP is a flagship programme in Ethiopia that provides households with a package of essential health services, including preventive, promotive, and basic curative services, which are designed particularly to benefit women and children.
Health Extension Workers (HEWs)	HEWs are female, front-line, community health workers who are specially trained and assigned at kebele health posts to provide primary health services across 17 different HEP packages and spend 75 percent of their time by performing outreach activities in the community**.**
Kebele	A Kebele is the lowest administrative unit of Ethiopian government comprising a local geographical area and delimited group of a people.
Maternal death	Maternal death refers to “the death of a woman while pregnant or within 42 days of termination of pregnancy from any cause related to or aggravated by the pregnancy or its management, but not from accidental or incidental causes” (WHO et al., 2019: 8).
Maternal health services	Maternal health services refer to the care given to women before, during and after pregnancy by healthcare providers within a health facility (Tunçalp et al., 2015). These services include antenatal, delivery and postpartum care services.
Pregnant women’s conference (PWC)	A pregnant women’s conference is a monthly gathering of pregnant women, which is conducted around the kebele health post in a relaxed and welcoming setting by including a traditional coffee ceremony. This conference is facilitated by health extension workers and midwives and used to disseminate pregnancy-related health information.

Postnatal care (PNC) services	PNC refers to the postpartum care provided immediately after birth of the baby and extending up to six weeks or 42 days (WHO, 2022a).
Primary Health Care Unit (PHCU)	A primary healthcare unit of the Ethiopian health care system comprises of five health posts, their referral health centre and a primary hospital.
Region	Region is the first administrative division in the Federal Democratic Republic of Ethiopia. The regions, alternatively called as Kilil or regional states, are further sub-divided into zones, which are then divided into Districts, and then into Kebeles.
Skilled birth attendant	A skilled birth attendant is a competent, educated and trained maternal and newborn health professional who provides care to women during pregnancy and delivery (WHO, 2018d).
Traditional birth attendant	In Ethiopia, traditional birth attendants (TBAs) are respected members of their communities who provide informal maternal care and advice to pregnant women. They are valued for their experience and close relationships with mothers, but they are not formally part of the government's community maternal health groups (Gurara et al., 2020; Omosivie & Rosemary, 2020).
Woreda	A woreda is an administrative division of Ethiopia, managed by local government.
Zone	Zones are administrative sub-divisions of regional states and are responsible for the implementation of policies and laws passed by the regional government.

ACRONYMS AND ABBREVIATIONS

ANC	Antenatal care
CSA	Central Statistics Agency
EDHS	Ethiopian Demography and Health Survey
EPHI	Ethiopian Public Health Institute
FGD	Focus group discussion
FMoH	Federal Ministry of Health
HDA	Health Development Army
HEP	Health Extension Programme
HEW	Health Extension Worker
HIV	Human Immunodeficiency Virus
HSDP	Health sector development plans
MDSR	Maternal death surveillance response
MMR	Maternal mortality ratio
MH	Maternal health
PNC	Postnatal care
PWC	Pregnant Women's Conference
SBA	Skilled birth attendant
SDGs	Sustainable Development Goals
SEM	Socio-Ecological Model
SNNPR	Southern Nations, Nationalities, and People's Region
SRS	Sidama Regional State
SSA	Sub-Saharan Africa
TPB	Theory of planned behaviour
TBA	Traditional birth attendant
UN	United Nations
UNICEF	United Nations Children's Fund
UNFPA	United Nations Population Fund
USAID	United States Agency for International Development
WHO	World Health Organization

CHAPTER ONE: INTRODUCTION

1.1 Background

Maternal health (MH) refers to the health of women before and during pregnancy, childbirth and immediately after delivery (Tunçalp et al., 2015). These are times when higher risks are present for the mother that can also impact the birth outcome and the development trajectory of the child (WHO 2017). The death of a woman during pregnancy is a particularly distressing experience for her family, healthcare providers and the community at large (Okonofua, 2021). The health of a mother holds considerable importance, not just for her immediate family but also for the wider community and society as a whole. It influences the future prospects of her child, the strength of social bonds, and the overall effectiveness of family dynamics (Batist, 2019).

Given its far-reaching impacts on women, children, families, society and nations, maternal health (MH) has been an area of increased focus in recent decades. It is a key health and social priority on the agendas of many countries. Worldwide, approximately 810 women die every day as a result of complications during pregnancy and childbirth (WHO, 2019a). In 2020, the global maternal mortality ratio (MMR) was estimated at 152 maternal deaths per 100,000 live births (Goalkeepers, 2021); this represented a decrease from 211 deaths per 100,000 live births in 2017 (WHO, 2019a). According to a 2019 report by the World Health Organization (WHO), United Nations Children's Fund (UNICEF) and other organisations (UNFPA, World Health Organization, UNICEF, World Bank Group, the United Nations Population Division, 2019), the estimated number of maternal deaths across the world decreased by 38% from 451,000 in 2000 to 295,000 in 2017. However, the maternal death rate remains higher in low-and-middle income countries than in high-income countries. Recent estimates indicate that 94% of the maternal deaths that occur globally occur in developing countries; sub-Saharan Africa alone accounts for 66% of these (WHO, 2019a).

In 2015, world leaders drafted a new global agenda called the Sustainable Development Goals (SDGs), which includes a target of reducing global maternal mortality to less than 70 deaths per 100,000 live births by 2030, with no country exceeding twice the global maternal mortality rate of 140 maternal deaths per 100,000 live births (United Nations, 2015). Given the current pace of progress, it is estimated that the world will fall short of attaining this target. According to the United Nations Maternal Mortality Estimation Inter-Agency Group projection, the world would need to decrease maternal deaths to 89,000

deaths by 2030 to reach the target of reducing the global MMR to less than 70 deaths per 100,000 live births by 2030 (Alkema et al., 2016). However, disruptions in the healthcare system, stay-at-home policies, and reduced access to hospitals that have occurred as a result of the Coronavirus Disease 2019 (COVID-19) epidemic have negatively impacted access to prenatal care and delivery services (Gebreegziabher et al., 2022; Temesgen et al., 2021; Goyal et al., 2021; Kassie et al., 2021)). The number of home deliveries, which are associated with poorer delivery outcomes, have increased (Goyal et al., 2021; Kassie et al., 2021). This has doubled the SDG target projection to 133 deaths per 100,000 live births in 2030 as COVID-19 is anticipated to have a continued impact on the health of women and infants (Goalkeepers, 2021).

Ethiopia is categorised as one of only four countries in which more than 10,000 maternal deaths were recorded during 2020, with the country accounting for 3. 6% of all global maternal deaths in that year (WHO, 2023). The maternal mortality ratio of Ethiopia was estimated at 267 deaths per 100,000 live births in 2020. The rate of maternal mortality in Sidama Region was also very high, compared to the national estimate. A recent population-based study found an overall maternal mortality ratio of 419 per 100,000 live births, while the maternal mortality estimates extend to 1142 deaths per 100,000 live births in districts with poor infrastructure and inadequate skilled health personnel (WHO 2023 and Kea et al., 2023).

The high maternal morbidity and mortality rates are attributed primarily to complications that occur during pregnancy, childbirth and postpartum periods: 80% of all maternal deaths are due to severe bleeding and infections that occur after childbirth, high blood pressure during pregnancy, preeclampsia and eclampsia, and unsafe abortions (WHO, 2019a). In sub-Saharan Africa, obstetric haemorrhage, hypertensive disorders in pregnancy, non-obstetric complications, and pregnancy-related infections have been identified as the leading causes (Musarandega et al., 2021). A similar pattern has been reported in Ethiopia (Berhan & Berhan, 2014; Legesse et al., 2017; Mekonnen et al., 2018; Tessema et al., 2017).

To address these maternal health concerns, a range of high-impact, policy-supported interventions have been implemented in Ethiopia to provide timely, quality maternal healthcare services free of charge during pregnancy and delivery and after delivery – including antenatal care (ANC), facility-based skilled birth care and postpartum care (PNC) services (Ministry of Health of Ethiopia, 2015; WHO 2019a). These maternal health

services have been provided by trained healthcare providers in functioning health facilities to reduce maternal mortality and morbidity. (Ministry of Health of Ethiopia, 2011a).

In addition to this, the services were provided through a community-based strategy called Health Extension Programme (HEP), which aimed at linking mothers with health facilities (Wang et al., 2016). The efforts made by the government has resulted in a 69% reduction in maternal mortality from the 1990s estimate (Ministry of Health of Ethiopia, 2015). However, the progress made in the reduction in the rate of maternal morbidity and mortality has not been satisfactory (Assefa et al., 2019). A Study done by Berhan & Berhan (2014b), indicated that poor utilisation of maternal health services has greatly contributed to the maternal mortality in Ethiopia. This raises the question of why the uptake of maternal health services on a local level is low. This study explored community perspectives about the viability of maternal health programmes and factors that impact the uptake of these services by mothers.

1.2 Problem statement and rationale

Globally, maternal health remains a serious public health and social concern. There is evidence that the periods of highest risk are during and immediately after birth (Tunçalp et al., 2015: 1045; WHO, 2018e: 105). Downe et al. (2018: 6) state that, to improve the health of mothers, every woman should have access to quality maternal health services that are clinically, culturally and psychologically safe.

Ethiopia has one of the highest rates of maternal mortality in the world (Ministry of Health of Ethiopia, 2015; WHO, 2019a). In light of this, a set of high impact maternal health interventions were made available in health facilities to the majority of women in Ethiopia to improve access to and utilisation of maternal health services (Ministry of Health of Ethiopia, 2015). However, the number of mothers who access and utilise antenatal, delivery and postpartum care services remains very low in Ethiopia (Ethiopian Public Health Institute & Inner City Fund, 2019: 13).

Similarly, the Sidama Region has the lower uptake of maternal health services, according to findings from studies done in the region (Gebretsadik et al., 2019; Kare et al., 2021; Shudura et al., 2020; Yoseph et al., 2021). This shows that a significant number of mothers are still giving birth at home (Negussie & Girma, 2017; Tsegaye et al., 2021). The decreased utilisation of maternal health services has been associated with increased rate of maternal mortality. For instance, Kea et al. (2023), found the highest rate of

maternal mortality in one of the districts of Sidama Region with its low uptake of maternal health services. Such decreased utilisation of maternal healthcare services has been associated with maternal mortality (Girum & Wasie, 2017). The underlying reasons for this phenomenon need to be understood and emphasis should be given to introducing appropriate, culturally acceptable interventions that can enable mothers to access maternal healthcare services (Lindtjørn et al., 2017).

Sociological researchers view mothers' perspectives of home delivery and the availability of service providers and resources at health facilities as key determinants (Bedford et al. 2013; Mahiti et al. 2015). This draws attention to the reality that the use of maternal healthcare services is determined by a complex set of factors, including community, personal, health facility, and policy-related factors, as demonstrated elsewhere, including Somalia (Mohamed et al., 2021).

In addition, interpersonal relationships, the social status of women and support from family and social networks have also been recognised as key factors that determine the uptake of services by mothers (United Nations Development Programme, 2011). For instance, the support mothers get from their social networks significantly predicts their use of facilities for delivery (Asrese & Adamek, 2017), the outcome of their pregnancy (Collins et al., 1993: 1250; Shah et al., 2014: 5), and the outcome of the birth (Campos et al., 2010: 7). As mothers in low income countries have been found, in some instances, to have limited autonomy to make a decision to seek services for conception, delivery and post-natal care (WHO, 2011). Thus, a deeper understanding of the role of women in making decisions regarding their use of healthcare services is also needed.

Some researchers recommend that efforts to improve access to maternal health services should consider a range of perspectives and factors – such as the cultural beliefs, values and religious views held by communities that may affect mothers' uptake of these services (Adatara et al., 2019; Caulfield et al., 2016; Finlayson & Downe, 2013; Sarker et al., 2016). Moreover, studies from Nepal, South Africa, Madagascar, and Nigeria have also shown that maternal health care service utilisation is influenced by multiple-level factors (Igras et al., 2019; Ngwenya et al., 2020; Nyaaba et al., 2021; Sharma et al., 2021).

These factors have also been studied in Ethiopia, and more specifically in the Amhara region of northern Ethiopia, notably by Duga & Teshite (2015: 194). That study however did not specifically hone in on the Sidama region, where uptake of maternal services is particularly low (Kea et al., 2023); and used only quantitative methodologies, as opposed

to the qualitative techniques used in this study to better understand local perspectives and lived experiences.

To fill that gap, this study explored locally held views that impact maternal health in the study area and makes recommendations to relevant health authorities and policy makers.

To improve uptake of maternal health services, sociological researchers also recommend that a range of perspectives and factors should be considered, such as the cultural beliefs, values and religious views held by communities regarding mothers' use of maternal health services (Adatara et al., 2019; Caulfield et al., 2016; Finlayson & Downe, 2013; Sarker et al., 2016). Since the maternal health service utilisation in the study area is very low, it is important to explore the factors that influence antenatal, delivery, and postpartum care services utilisation. The effect of these barriers on maternal health service utilisation is not clear, and there are also limited studies in this regard in the study area, Sidama Region. This study explores locally held views, experiences and challenges related to use of maternal health services from mothers who can provide valuable insights.

Thus, the research will firstly provide evidence-based insights on community's cultural and religious views, experiences, perspectives, and choices related to maternity care services, and secondly, make recommendations that can improve maternal health service utilisation and lead to improved maternal health outcomes and quality of life. A sound understanding of women's cultural and religious views, experiences, and perspectives related to maternity care services is essential for the future ability to design strategies that can improve access to maternal healthcare.

1.3 Research question and objectives

Taking into account the context of extremely high levels of maternal morbidity and mortality described above, this study aimed to build knowledge of the reasons for the low utilisation of health facility-based maternal care, by amplifying the voices and uncovering the lived experiences of these communities, and in particular, pregnant women and mothers. Therefore, the following overarching research question is posed by this study: How do community experiences and perspectives of maternal health care in the Sidama region of Ethiopia inform broader understandings of decision-making regarding the use of health facility-based care during and after pregnancy and childbirth?

The study explores how factors at the systemic, health facility, community, and interpersonal levels influence mothers in the Sidama region of Ethiopia regarding the use of maternal healthcare services, guided by the following sub-questions:

a) Which contextual and health system-related factors do members of the Sidama communities consider when exercising decisions on the use of facility-based maternal health services?
b) What challenges have pregnant mothers experienced with regard to utilising facility-based maternal healthcare services?
c) How do the socio-cultural norms and practices of communities and families in the Sidama region influence the use of maternal healthcare programmes in these communities?
d) What are the perspectives of pregnant mothers in the Sidama region of maternal healthcare services available in their area?
e) How can existing theories in health seeking behaviours be compared to lived experiences of maternal health services to produce a refined theoretical perspective of maternal health services utilisation?

In relation to the questions for investigation identified above, the study explored community perspectives about the viability of maternal healthcare programmes in the Sidama region by focusing on the following research objectives:

a) To identify health system and contextual factors that influence the uptake of facility-based maternal health services by pregnant women and mothers;
b) To explore the challenges that pregnant mothers have experienced in utilising facility-based maternal healthcare services during pregnancy, delivery and the postpartum period;
c) To investigate how the socio-cultural norms and practices of communities and families in the Sidama region influence the use of maternal healthcare programmes;
d) To outline the perspectives of pregnant mothers in the Sidama region of maternal healthcare services available in their community; and
e) To compare existing theories in health seeking behaviours to the lived experiences that mothers in the Sidama region have of maternal health services, to produce a refined theoretical perspective of maternal health services utilisation.

1.4 Theoretical approaches to studying mothers' perspectives

The death of mothers has a massive impact on the health, social, and economic well-being of families and countries; the rate of maternal death is higher in countries where maternal health care is underutilised. Evidence from several studies indicates that improving the quality and accessibility of maternal healthcare services is an important factor in reducing mortality and morbidity among mothers (Batist, 2019; Bhutta et al., 2014: 358-360). However, the utilisation of maternal health services is a complex behavioural phenomenon influenced by a number of personal, psychological, social, cultural, socioeconomic and healthcare-related factors (Adgoy, 2018; Bowling, 2009; WHO, 2020b). In light of this, two complementary theoretical frameworks were used to explore the diverse views of community members with regard to the utilisation of maternal healthcare services: the Theory of Planned Behaviour (TPB) and the Socio-Ecological Model (SEM).

The theory of planned behaviour has played a crucial role in understanding human social behaviour, including the attitude of mothers towards using maternal healthcare services, the influence of the people in a woman's social network on the use of services, and the perceived capabilities of mothers to access essential services (Ayana et al., 2021; Lera et al., 2017; Moshi et al., 2020). However, the theory of planned behaviour has focused only on personality-related factors and explaining only the perceived views of individuals in performing the recommended behaviour; it fails to explore the material aspects of the social context. In response, this theory was used in combination with the socio-ecological model in this study to enable an inclusive exploration of a community's perspectives on the utilisation of maternal healthcare services. This model facilitates the exploration of diverse views – from the level of the individual to that of the community, the health system and national policy.

Since there has been insufficient research into the factors related to utilising maternal healthcare services, these theories were found to be instrumental in exploring the issue from different viewpoints. Theoretical frameworks provided explicit interpretive frameworks for researchers to make their data intelligible and justify their methodological decisions, the organisation of the study, make meaning of the phenomenon, and connect the study to the existing body of research (Bendassolli, 2014; Collins & Stockton, 2018). It also provides a fundamental structure that guides the way knowledge is constructed in line with the rationale of the study, problem description, and the research question (Grant & Osanloo, 2014). Therefore, the use of these theories helped shape the parameters of

the study and served as a guide in determining the research question and sub-questions and rationale that drove the study, and its broader significance.

1.5 Structure of the thesis

This thesis consists of six chapters, as discussed below. Throughout the thesis, a funnel structure has been adopted for analysis, addressing various levels of influence on maternal services uptake, beginning with broader policy and institutional factors, moving through systemic and community context as well as interpersonal dynamics, and culminating in individual experiences and perspectives. This structure supports a nuanced exploration of the complex influences on maternal health service utilisation.

Chapter One introduces key global, regional, and national issues related to maternal morbidity and mortality and provides background information on maternal health programmes. The research rationale, research question and objectives of the study are presented, and the significance explained. The chapter presents the overarching research question, sub-questions and objectives, and explains the significance of the study, highlighting the urgent need to understand maternal healthcare uptake in low-income settings. It also introduces the theoretical frameworks employed in the research the Theory of Planned Behaviour (TPB) and the Socio-Ecological Model (SEM).

In Chapter Two a comprehensive review of literature on maternal health is conducted, examining global, regional, and national patterns of maternal mortality and service utilisation. The chapter explores the historical and structural context of maternal health programmes, relevant health policies and programmes intended to improve maternal health outcomes, the continuum of care from antenatal to postnatal services, and the disparities in uptake of services at different stages of care. While acknowledging progress made in Ethiopia, the chapter highlights key barriers to utilisation. The chapter concludes with a section identifying research gaps.

Two complementary theories selected to explore community perspectives and other factors impacting the uptake of maternal healthcare services are considered in Chapter Three. These are the Theory of Planned Behaviour (TPB) and the Socio-Ecological Model (SEM). These theories are used to explore the multifaceted factors influencing maternal health service utilisation, from structural and relational conditions to personal beliefs and decision-making. The chapter explains the relevance, strengths, and limitations of each model and justifies their combined use in this study. The integration of TPB and SEM

supports an analysis that considers both the wider social environment and individual-level agency, providing a strong foundation for the study's design and interpretation of findings.

Chapter Four presents the research methodology, justifying the use of an exploratory qualitative design to examine community perspectives and mothers' lived experiences. The chapter details the research instruments, sampling strategies, data collection methods, and analytical procedures utilised in the study. It discusses how the use of in-depth interviews and focus groups, and a five-step approach to thematic content analysis, was beneficial for interpreting the data. The researcher's insider role is critically examined, while the ethical and quality assurance measures applied throughout the study are explained in detail.

In Chapter Five, the key findings are presented, organised around five main themes, those of accessibility, perceived quality of care, social and community factors including cultural beliefs, family influence, and the scope of knowledge and awareness. Finally, mothers' perspectives provide insight into their varied experiences and attitudes towards the available maternal healthcare services. These findings collectively deepen understanding of the complex factors shaping maternal health service use in Sidama.

Chapter Six discusses the findings in relation to the empirical and theoretical literature. Maintaining the funnel structure, the chapter moves from broader and systemic influences to interpersonal and personal pressures, illustrating the interplay between health system limitations, social expectations, cultural beliefs, and maternal agency. The chapter identifies how existing theoretical models capture many, but not all, of the lived realities expressed by mothers. To address these gaps, new nuance is added to a conceptual framework integrating TPB and SEM in a context-sensitive way. This framework offers a more comprehensive understanding of maternal care utilisation and informs culturally responsive policy and programme development in low-resource settings.

Chapter Seven, the Conclusion, provides an overarching summary of the main findings of the study, answering the research question and reflecting on the theoretical implications of the findings. It highlights how maternal healthcare utilisation and decision-making in Sidama region is shaped by an intricate web of systemic, social, and individual factors. Based on these novel insights, the chapter offers new practical recommendations to improve service delivery, strengthen community engagement, and address entrenched socio-cultural norms. The final section presents the resulting conceptual framework as a

contribution to both theory and practice, offering a grounded and adaptable model for understanding and addressing maternal health behaviours in similar contexts.

1.6 Contribution of the study

The care given before, during and after pregnancy is essential to improve the health and well-being of both mother and baby. To attain an improved health status of women and newborns, it is important to ensure that women have access to quality maternal health services and are utilising of the available services. Improving the uptake of maternal health services was, in turn, key to reducing the risk of death due to complications during pregnancy, delivery, and postpartum period.

As there is a sought high rate of maternal morbidity and mortality among mothers in Ethiopia, this study seeks to develop a deeper understanding of the underlying factors that determine whether quality maternal healthcare services are accessed. The methodology is closely aligned with the research focus and theoretical foundations, enabling a context-sensitive understanding of maternal healthcare utilisation in Sidama.

My work experience as a public health official within regional government in Ethiopia, had first exposed me to the low uptake of contraception by local women. Combined with my background in Sociology, this triggered my interest in the factors influencing maternal health service utilisation in Ethiopia, and the impact on maternal and child health. This positionality, together with my fluency in the local language of Sidaamu-Afoo, makes me particularly well placed to gain access to pregnant women, mothers, their communities, and health workers, in order to uncover their lived experiences and perspectives of health care, outside the everyday reach of researchers using motorised transport, and therefore largely silent in the literature.

To bring social change, the factors or limitations that influence such change need to be understood. This study enables the relevant development agencies, including government, to gain a better and broader understanding of the social realities and experiences of women, in particular, and the community, in general, with regard to the viability of maternal health facilities in Ethiopia. The findings assist the relevant stakeholders especially those working in the area of health interventions and related policies to improve maternal health outcomes.

1.7 Conclusion

This thesis presents a study focused on understanding communities' grassroots perspectives of the maternal healthcare services available in the Sidama region of southern Ethiopia. This chapter has highlighted maternal health as a serious health and social problem globally. Evidence indicates that low uptake of maternal health services contributes to high rates of maternal morbidity and mortality, particularly in low-income countries.

As the health of a mother impacts not only her own wellbeing but that of her family, community and nation, it is a complex issue that sociological researchers have recommended be investigated from multiple perspectives. The study explores mother's experiences and perspectives with regard to using maternal healthcare services, and the factors that contribute to low uptake of these services by mothers, using exploratory qualitative research methods to generate rich data on mothers' lived experiences and perspectives, and the socio-cultural factors that impact their utilisation of antenatal, delivery and postpartum care services. The findings from this research will contribute new knowledge that can inform policy and practice on maternal health programs in Sidama region, improve maternal health service utilisation, and subsequently reduce maternal morbidity and mortality.

The next chapter reviews the literature related to the concepts of maternal health and mortality, its underlying causes, broader impacts and prevention strategies related to this concept. The chapter also outlines the policy interventions that have been developed to enhance the delivery of these services, the maternal healthcare services available to mothers in Ethiopia, and finally, the uptake of maternal healthcare services by pregnant women and mothers.

CHAPTER TWO: REVIEW OF LITERATURE ON MATERNAL MORTALITY AND THE UPTAKE OF MATERNAL HEALTH SERVICES

2.1 Introduction

This chapter reviews findings from different studies conducted globally and locally regarding the perspectives of mothers about maternal healthcare services provided during pregnancy and childbirth. It also identifies gaps in the implementation of maternal healthcare programmes.

The literature review is organised into four main themes. First, concepts and issues related to maternal health and maternal mortality are explained. Secondly, the review delves into the specific context of maternal health and maternal mortality in Ethiopia. Thirdly, the prevention of maternal mortality is discussed. Finally, chapter considers the provision of maternal healthcare services in Ethiopia, ie the continuum of maternal health services that are offered during and after pregnancy, including antenatal care, delivery and postpartum care services, and the uptake of these services at the different stages of maternal care.

2.2 Overview of maternal health and maternal mortality

2.2.1 Conceptualising maternal health

Globally, maternal health continues to be a major public health and social concern. The World Health Organization (WHO) underlines that a woman's health and wellbeing should be prioritised, especially throughout her most vulnerable life stages, such as before, during and after childbirth (WHO, 2017). In light of this, the WHO recommends that mothers be provided access to quality prenatal, delivery and postpartum dimensions of care to optimise their health and safety and that of their baby during pregnancy and birth (Requejo & Bustreo, 2016). Increasing the attention given to women's health may empower them to make decisions that enhance their health and well-being (Langer et al., 2015).

In addition to these aspects of maternal health, social researchers argue that the issue of maternal health should no longer be considered simply a public health issue' rather, the health of women should be seen as a human rights concern (Abegaz, 2019: 2; Johnson

& Das, 2014). Moreover, the health and wellbeing of mothers determines the health of the next generation, as a positive birth outcome influences the developmental trajectory of the infant (WHO, 2011: 7-9). The health and survival of a woman thus does not only concern of the woman, but has an ongoing, intergenerational effect on the child's future: for example, children without mothers are at greater risk of dropping out of school, becoming malnourished and ultimately not surviving (Batist, 2019). The health of the mother impacts the family's socio-economic status, social cohesion, individuals and family productivity, and the ability of a country to achieve development targets (WHO, 2017). Maternal health should thus be seen as a focal social and health challenge impacting every family, community and nation. For this reason, social researchers argue that maternal health issues must be made an integral part of any comprehensive approach to improve women's health in general (Requejo & Bustreo, 2016: 211-212).

Global advocators of women's rights insist that pregnant women should have better access to health care through a human rights-based approach (Johnson & Das, 2014). Since every woman has a right to enjoy the highest attainable standard of health, the rights-based approach emphasises that maternal care services need to be provided respectfully and equitably to every woman to address complications that may arise at high risks periods in pregnancy and during and after birth (Solnes Miltenburg et al., 2016). Similarly, the three overarching objectives of the Global Strategy for Women's and Children's Health *survive, thrive, and transform* also call for actions that are grounded in a human rights perspective to enable women and children to enjoy good health and use their full potential to contribute to transformative change and sustainable development (WHO, 2019b).

To realise the vision of ensuring the health and well-being of women, global guidelines have been developed by the WHO and other stakeholders to frame national maternal health interventions. Policy frameworks are essential to guide or coordinate services provided to improve maternal health in accordance with a human rights-based approach (WHO & PMNCH, 2014: 8). Health policies are broad decisions, plans or actions undertaken to achieve the goal of ensuring the health and survival of women (WHO, 2020c). An explicit health policy sets out a vision with priority areas, lays out a structure for the institutions, services and funding arrangements that will support this, and serves to build consensus with various stakeholders (Buse et al., 2005: 6). This helps to ensure that effective health systems are in place to meet the needs and address the concerns and health problems of women.

A range of policy directives and global action agendas aligned to the Sustainable Development Goals have been conceptualised by the WHO and its partners since the goals were determined in 2015. The three main global action agendas are 'Strategies toward Ending Preventable Maternal Mortality (EPMM)' (WHO, 2015d), 'Global Strategy for Women's, Children's and Adolescents' Health' (WHO, 2016c), and 'Every Woman Every Child's Global Strategy for Women's, Children's and Adolescents' Health' (WHO, 2016b). In addition to this, the WHO, the H6 partnership and stakeholders from different countries launched a strategic network on Quality, Equity, Dignity: The network to improve quality of care for maternal, new born and child health' (the QoC Network)' with a vision that every pregnant woman and newborn receives quality care throughout pregnancy, childbirth and the postpartum period (WHO, 2018e). Besides this, the WHO has issued various technical guides and recommendations on the care of mothers: 'Antenatal care for a positive pregnancy experience' (WHO, 2016a), 'Intrapartum care for a positive childbirth experience' (WHO, 2018e), 'Postnatal care of the mother and newborn' (WHO, 2013), and 'Health promotion interventions for maternal and newborn health' (WHO, 2015c).

Furthermore, the 'WHO guideline on health policy and system support to optimise community health worker programmes' (WHO, 2018c) was also developed to give recognition to the participation of community-based health workers in the delivery of a range of preventive, promotive and curative health services. These strategies and technical guidance have been adopted by countries around the world to improve the health and wellbeing of women and children.

2.2.2 The global burden and trends of maternal mortality

Maternal mortality can be quantified by using the maternal mortality ratio (MMR), which indicates the risk of dying once a woman is pregnant relative to the number of live births (the number of maternal deaths per 100,000 live births) (WHO, 2019a). MMR is used in public health to reflect the quality of healthcare services and the status of women's risk of maternal death relative to the number of live births. It is estimated that a total of 10. 7 million women died globally between the years 1990 and 2015 due to maternal causes (WHO, 2019b, 2015a). However, reports show that the MMR fell by nearly 38% over the past 25 years.

According to a report by the (WHO, 2019a) it was estimated that about 810 women died per day globally in 2017, on average due to avoidable complications during pregnancy and labour. This yields an overall global MMR of 211 maternal deaths per 100,000 live births (WHO, 2019a).

In contrast, maternal deaths represent a very small proportion of live births in the Global North. For instance, North America recorded an MMR of approximately 17 deaths per 100,000 live births in 2020, while Europe and East Asia reported MMRs of 13 and 16 per 100,000 live births, respectively (UNFPA, 2023; WHO, 2023). These figures translate to fewer than 1,000 maternal deaths annually across all high-income regions combined, reflecting the effectiveness of well-resourced health systems, universal access to skilled birth attendance, and robust emergency obstetric care (UNFPA, 2023). The majority of recorded maternal deaths (94%) occurred in low-and middle-income countries. Among the 295,000 mothers who died globally in 2019, Sub-Saharan Africa and Southern Asia accounted for an estimated 254,000 maternal deaths (86% of maternal deaths worldwide).

The global lifetime risk of maternal mortality has been estimated at 1 in 190 (WHO, 2019b: 32), but the available data indicates a huge difference across regions. In low-income countries, MMRs are 29 times higher than in high-income countries. Correspondingly, the lifetime risk of maternal death also varies between high- and low-income countries – in high-income countries one in 5,400 women dies from maternal causes, whereas in low-income countries one woman out of 45 women dies from maternal causes (WHO, 2022b: 25). This shows that women in developing countries face higher life time risk of maternal death because of the higher fertility rates and the higher risks of dying in labour (Berhan & Berhan, 2014b: 122). In light of this, estimates by the WHO, UNICEF, United Nations Population Fund (UNFPA), World Bank Group and UN Population Division (2019: 35, Table 4. 1) for lifetime risk for maternal mortality was 1 in 37 for a developing region like sub-Saharan Africa 1 but 4,800 for developed countries in Europe and Northern America. This highlights maternal health issues as a key issue in developing countries.

2.2.3 Causes of maternal mortality

It is of paramount importance to identifying the causes of death underlying the high rate of maternal death in developing countries in order to style interventions strategies effectively to prevent maternal mortality. The World Health Organization et al. (2019: 8) define maternal death as

> "the death of a woman while pregnant or within 42 days of termination of pregnancy from any cause related to or aggravated by the pregnancy or its management, but not from accidental or incidental causes".

This definition reflects the risk of mortality associated with pregnancy or childbirth and the level of fertility experienced by women of reproductive age. The causes of maternal mortality are broadly classified into two – direct obstetric causes and indirect obstetric causes:

a) Direct obstetric causes: This refers to causes related to obstetric complications of the pregnancy state (pregnancy, labour and the puerperium) that result from interventions, omissions, incorrect treatment, or from a chain of events resulting from any of the above.
b) Indirect obstetric causes: This refers to causes resulting from previous existing disease that developed during pregnancy and did not result directly from obstetric causes, but were aggravated by the physiological effects of pregnancy.

Various studies report that most (73%) of maternal deaths occur as a result of direct obstetric complications like haemorrhage, obstructed labour / ruptured uterus, pregnancy-induced hypertension, puerperal sepsis and unsafe abortion; indirect causes included anaemia, malaria and other infections (Musarandega et al., 2021; Say et al., 2014). Slightly over half (52%) of the cases of maternal mortality are attributable to three main causes that are preventable – haemorrhage, sepsis, and hypertensive disorders; 28% of cases result from non-obstetric causes such as malaria, Human Immunodeficiency Virus (HIV), diabetes, cardiovascular disease, and obesity; and 8% attributed to unsafe abortion (WHO, 2016c). Similar findings were reported from a study in northern Uganda, in which 73. 8% of maternal deaths were attributable to direct causes and the remaining 26. 2% of deaths resulted from indirect causes (Alobo et al., 2022).

Maternal deaths are far more common in low-income countries where women more often lack access to essential health services (WHO, 2019a). For instance, in one study pregnant women in countries in sub-Saharan Africa were found to encounter physical and economic challenges to accessing health facilities (Okonofua, 2021). In another study, mothers who accessed the available services experienced poor quality of care as a result of a shortage of supplies and skilled healthcare providers (Bazile et al., 2015: 4). Negative experiences of care have emerged as significant barriers preventing women from accessing the full spectrum of professional healthcare services (Integrated Family Health Program, 2014; JSI Research and Training Institute, 2012). Complications that occur

during and following pregnancy were recognised globally as the main causes of maternal mortality (WHO, 2019a). Although most of these complications are preventable, the lack of access to quality maternity care services in developing countries worsened the health outcome of women and thus becomes the leading cause of maternal mortality (Say et al., 2014).

Maternal mortality is not merely a health issue but is deeply intertwined with economic and political structures. Evidence from multi-country studies shows a strong bi-directional relationship between maternal mortality and countries' GDP and economic growth (Amiri & Gerdtham, 2013). The death of a mother often results in economic deprivation and poverty for the woman's family (Miller & Belizán, 2015). Furthermore, maternal mortality reflects the effectiveness of the health system of a country on every level and also reflects the sociocultural, political and economic philosophy of a society (Moucheraud et al., 2015).

Maternal mortality is not uniformly distributed even within high-income countries. For example, African American women in the United States experience maternal mortality rates three to four times higher than white women, reflecting systemic racism, structural inequalities, and disparities in healthcare access (Howell, 2018; Creanga et al., 2017). This demonstrates that maternal mortality is influenced by class privileges and structural impediments that result in high maternal mortality and morbidity rates for certain sections in different parts of the world. Similarly, Indigenous women in Canada, Australia, and New Zealand face disproportionately high maternal mortality rates due to historical marginalisation, geographical isolation, and inadequate healthcare services (Kildea et al., 2016). These examples underscore that maternal health outcomes are shaped by intersecting factors of race, class, geography, and access to quality healthcare.

In the Horn of Africa, maternal mortality remains alarmingly high due to conflict, displacement, and weak health systems. Somalia has one of the highest maternal mortality ratios in the world at 829 deaths per 100,000 live births, exacerbated by decades of civil war, famine, and limited healthcare infrastructure (WHO, 2019a). In South Sudan, the maternal mortality ratio stands at 1,150 deaths per 100,000 live births, reflecting the impact of protracted conflict and humanitarian crises (UNFPA, 2020). A study in Somalia found that policy, institutional, community, interpersonal, and individual factors were identified as barriers to the utilisation of maternal and child health services among internally displaced mothers (Mohamed et al., 2021). These findings resonate with the challenges faced in Sidama and highlight the importance of context-specific interventions.

In contrast to the direct and indirect health causes of maternal mortality Batist (2019), identifies three important social determinants of maternal mortality in sub-Saharan Africa: sociocultural gender inequities, educational disparities, and economic inequalities. As an example, gender-based discrimination leads to economic, social and health disadvantages for women, affecting their own and their families' well-being in complex ways throughout their lives and into the next generation (WHO, 2016c). Women often face a lack of autonomy in healthcare decision-making, particularly prevalent in African settings, where choices regarding childbirth location or seeking professional care may be dictated by spouses, mothers-in-law, or other relatives (Baral et al., 2010; Kabakyenga et al., 2012; Mekwunyei & Odetola, 2020). Studies indicate that women of low socioeconomic status encounter barriers such as limited access to transportation funds, hindering their use of maternal healthcare services (Kazanga et al., 2019; Sarker et al., 2016; Sialubanje et al., 2015). Since primary healthcare facilities may lack the necessary resources for managing maternal complications, an effective referral system is vital to ensure access to specialised care for women facing such challenges (Kilpatrick et al., 2019; WHO, 2019b: 62).

In terms of the impact of educational status on maternal mortality within sub-Saharan Africa, studies have found that illiteracy hinders pregnant women from accessing information about maternal health care options, and is associated with being less inclined to access health services and perceiving themselves as ill-equipped to make decisions about their own health autonomously (Batist, 2019; Sajedinejad et al., 2015). Information is recognised as a pivotal factor in altering individuals' knowledge, perspectives, and attitudes towards health, thereby empowering them to make informed decisions (Anasi, 2012).

Similarly, evidence suggests that individual's poor living conditions, psychosocial circumstances, behavioural and biological factors along with poor access to healthcare services greatly contributed to an increased risk of maternal mortality (Jones et al., 2022). Evans (2013), found that the cultural values, beliefs, norms, patterns and practices of pregnant women had an indirect bearing on maternal mortality. Jones et al. (2022), posited that this might be due to the influence of traditional, cultural and social norms on the care seeking behaviours of pregnant women. The researchers also indicated that poor maternal health outcomes were predominantly observed among socially disadvantaged women such as those who were uneducated, undernourished, lack shelter, had abusive and unsupportive partners, families and peers or were substance users.

This indicates that the causes of maternal mortality are diverse and cannot be addressed through the efforts of the health sector alone. Interventions aimed at improving maternal and child health should thus consider addressing or modifying the social circumstances that negatively influence the health choices, and access to healthcare services, of pregnant women.

2.2.4 Impacts of maternal mortality

The death of a mother has a far-reaching impact on the wellbeing of her family, community and society as a whole. Maternal mortality is widely recognised as a proxy indicator for population health, development, women's empowerment, and economic and social development (Wilmoth et al., 2012). Evidence from multi-country studies shows a strong bi-directional relationship between maternal mortality and countries' GDP and economic growth (Amiri & Gerdtham, 2013). A study conducted in China reported that the death of a mother negatively impacted the economic status of the household (Wang et al., 2013). Similar findings were observed in countries in sub-Saharan Africa (Alvarez et al., 2009). The death of a mother often results in economic deprivation and poverty for the women's family (Miller & Belizán, 2015).

Maternal death has a staggering impact on surviving children. Children whose mothers have died are at greater risk of dying compared to children of surviving mothers (Houle et al., 2015; Moucheraud et al., 2015). A study conducted in sub-Saharan African countries found a strong, direct relationship between the maternal mortality rate and the infant mortality rate (Mekonnen et al., 2019). Another study, conducted by Moucheraud et al. (2015), found an extremely high-rate correlation between neonatal mortality and maternal mortality, where 81% of children born to women who died during their birth also died. Similarly, a study conducted in South Africa reported an increased mortality rate among children whose mother had died (Houle et al., 2015).

Surviving children who have lost their mothers have also been found to be more vulnerable to illness and malnutrition, less likely to complete their education and joined the labour force at a younger age (Bazile et al., 2015). Knight & Yamin (2015) found that found that older children who had lost their mother were impacted emotionally, and socially; girls, in particular, were more likely to marry and have children at a younger age. This indicates that the death of a mother has intergenerational and far-reaching consequences (Miller & Belizán, 2015).

Maternal death is also recognised as the biggest factor contributing to differences in life expectancy between men and women more than any in low-income countries (WHO, 2022b: 24-25). Besides this, it reflects the effectiveness of the health system of a country on every level and also reflects the sociocultural, political and economic philosophy of a society (Moucheraud et al., 2015). Maternal mortality is also identified as an indicator of the level of collaboration that exists between different sectors to address maternal health issues (Ronsmans & Graham, 2006).

2.3 Uptake of facility-based services during different stages of maternal health care

Maternal healthcare services refer to the care given to women before, during and after pregnancy. As the majority of maternal deaths are avoidable, the provision of quality health services during these times is critical to reducing mortality and morbidity among mothers and their infants (WHO, 2016a: 6). The WHO recommends that these services be delivered by competent and motivated healthcare providers within a well-functioning health system (Tunçalp et al., 2015: 1046). Some studies have stressed the importance of health services being adequately equipped and supplied to care for all maternal health needs within the course of a normal pregnancy as well as for emergency obstetric care (Schaffer & Rashid, 2018).

'Quality of care' refers to the degree to which maternal health services that are delivered are timely and appropriate and help to achieve the desired health outcomes in line with current professional knowledge and basic reproductive rights (Raven et al., 2012: 679). Hence, improving the quality of maternal healthcare service is key to ensuring maternal, foetal and newborn survival (WHO, 2016a: 6). In light of this, the WHO urges quality care be provided to every woman during pregnancy, childbirth and the postpartum period and identifies the following priority areas (Tunçalp et al., 2015: 1045-1046):

a) Essential birth care, together with labour observation and action and essential new born care, during birth and the first week;
b) Management of pre-eclampsia, toxaemia and its complications;
c) Management of postpartum haemorrhage;
d) Management of difficult labour by using safe and acceptable medical technologies;
e) New born resuscitation;
f) Management of preterm labour, birth and acceptable care for preterm babies;

g) Management of maternal and newborn infections.

While significant progress has been made towards the targets set by the Millennium Development Goals (MDGs), the progress has been geographically uneven, especially in Africa (United Nations, 2015). The main factors impeding progress have been challenges related to maternal health services, like inadequate infrastructure, a lack of competence and motivation on the part of healthcare workers, poor service accessibility, and poor documentation and use of information to design appropriate interventions (WHO, 2018e: 5-6). In response to this, in 2016 Sustainable Development Goal (SDG) 3 brought a shift in strategy from focusing exclusively on survival to promoting the well-being of women and children. This is supported by another global initiative: the Strategy for Women's, Children's and Adolescents' Health (WHO, 2016c). In line with these strategies, the WHO has developed two complementary global agendas to reduce the maternal and child mortality rate; namely 'Strategies to End Preventable Maternal Mortality' (WHO, 2015d) and 'Every newborn action plan' (WHO & UNICEF, 2014). These strategies call for integrated and holistic interventions to improve the uptake of maternal healthcare by identifying and addressing the causes of maternal mortality, such as socio-cultural and socio-economic factors. Specific interventions are recommended across the continuum of care; including preconception, antenatal, intrapartum, and immediate postpartum period care (Firoz et al., 2018: 64-65). These interventions are expected to have a significant impact in terms of addressing the healthcare needs and concerns of pregnant women and reducing the maternal morbidity rate (Berhan & Berhan, 2014a: 100). Research finding shows that the provision of good quality antenatal, intrapartum, and postpartum services contributes to the aversion of 54% of maternal deaths, 71% of neonatal deaths, and 33% of stillbirths per year (Bhutta et al., 2014: 358-360).

In this section, antenatal, delivery, and postpartum care services are discussed in detail.

2.3.1 Antenatal care services

The WHO defines antenatal care (ANC) as "the care provided by skilled health-care professionals to pregnant women in order to ensure the best health conditions for both mother and baby during pregnancy" (WHO, 2016a: 1). Good quality ANC is used as an entry point of care for identifying and managing pregnancy-related complications. Good ANC practice includes providing routine screening for hypertensive diseases in pregnancy through regular monitoring of blood pressure, checking for foetal heart sounds, and

counselling on birth preparedness and postpartum family planning options (WHO, 2018d: 2). Hence, providing timely and appropriate ANC services during the intrapartum period gives an opportunity to mediate the causes of maternal mortality and morbidity and thereby improve maternal and neonatal health (Oladapo et al., 2018: 860).

ANC provides an ideal platform for the healthcare provider to communicate with mothers, families and communities and provide the necessary medical and psychosocial support regarding pregnancy (Oladapo et al., 2018: 860). In view of this, ANC is designed to provide critical healthcare functions including health promotion, health education, prevention and management of pregnancy-related or concurrent diseases, and screening and diagnosis of diseases (WHO, 2016a: 1). The provision of quality antenatal care makes an essential contribution to the reduction of maternal and child morbidity and mortality by identifying and managing women with an increased risk of developing complications during pregnancy, childbirth and immediately after delivery (Carroli et al., 2001: 4).

Furthermore, the care given during pregnancy also plays a crucial role in increasing the proportion of mothers who utilise the services of a skilled care provider during delivery and immediately after delivery (Berhan & Berhan, 2014a: 96; Kebede et al., 2016: 471). For example, Ethiopian mothers who had had one or more antenatal care visits were found to be about four times more likely to deliver at health facilities and to use postpartum care service as compared to mothers who had not accessed ANC (Fekadu et al., 2018: 3-7). The WHO found that accessing ANC four or less times is associated with high perinatal mortality and an increased rate of stillbirths (Vogel et al., 2013: 3-6). In light of this, the WHO has revised its previous recommendations of only four visits (WHO, 2002) and has introduced a new model - the 2016 WHO ANC model (WHO, 2016a).

The 2016 WHO ANC model is aimed at improving women's health and reducing perinatal mortality by providing respectful and person-centred care at every contact to support a positive pregnancy experience (WHO, 2016a: 105). It recommends a minimum of eight ANC contacts, with the first contact scheduled to take place in the first trimester, two contacts scheduled in the second trimester and the remaining five contacts in the third trimester. This supports the mother to have a healthy and a positive pregnancy outcome. A positive pregnancy experience involves a woman maintaining physical health and sociocultural normality throughout their pregnancy life and enabling them to have a positive transition to good motherhood (Oladapo et al., 2018: 860). The WHO model aims to provide pregnant women with respectful, individualised, person-centred care at every contact, through the provision of timely clinical care and relevant information, as well as

psychosocial and emotional support, by practitioners with good clinical and interpersonal skills within a well-functioning health system (WHO, 2016a: 105-106).

In Ethiopia, pregnant mothers were provided ANC services with four or more visits per pregnancy (Ministry of Health of Ethiopia, 2011a). Various studies have reported an increase in the uptake of ANC services in Ethiopia. According to the recent mini EDHS survey, 74% of pregnant women nationally, and 69% of women in the SNNP region, had received ANC from a skilled provider at least once during their last pregnancy (Ethiopian Public Health Institute & Inner City Fund, 2019: 13). Another systematic review finding indicated 63. 77% of mothers had received ANC services (Tekelab et al., 2019: 6). Studies conducted in different parts of Ethiopia reported varied rates of uptake of ANC service. For example, 77. 4% of women in the Sidama region (Regassa, 2011: 393), 90. 1% of women in the Hadiya Zone (Asseffa et al., 2016: 3-4), 76. 2% of women in the Boricha district (Dulla et al., 2017: 77), and 87. 6% of women in the town of Hossana (the administrative centre of Hadiya Zone) (Dutamo et al., 2015: 4) had had at least one ANC visit during their most recent pregnancy. Lower rates of uptake of ANC services were reported in the Tigray Region (Tsegay et al., 2013: 5), the Benishangul Gumuz Region (Tiruaynet & Muchie, 2019: 3-4), in the Menit-Shasha district pastoralist community (Wolderufael, 2018: 148) and in Boricha district (Tadele et al., 2015). This indicates that the uptake of ANC services by pregnant mothers varies across the country even though similar strategies were used in all areas.

Although pregnant mothers were recommended to have four or more ANC visits before giving birth, among those who received the first ANC, only 43% of pregnant women had four or more ANC visits (Ethiopian Public Health Institute & Inner City Fund, 2019). This indicates that a significant proportion of pregnant women who started utilising ANC services were unable to continue getting subsequent ANC services. This higher gap between the number of mothers who received the first ANC visit and fourth visit was evidenced by a systematic review report (Berhan & Berhan, 2014a: 98). Similar study finding also indicated that only 32% of mothers in Ethiopia had received four or more ANC visits (Hogan et al., 2018). Other studies also indicated a decreasing trend in subsequent ANC visits as well as skilled delivery service use (Kifle et al., 2017: 4; Shiekh & Kwaak, 2015: 4). This decrease from the recommended four ANC visits signifies a low uptake of which corresponds to increased maternal morbidity and mortality (Berhan & Berhan, 2014a: 97-100). The main reasons mentioned by mothers for not accessing ANC services were that they were not experiencing health problems during their pregnancy, their

employment prevented them from visiting the ANC services, experiencing shame for going to the ANC services, their assessment that the quality of services was poor; and that woman lacked awareness of the importance of ANC (Dutamo et al., 2015: 4).

Despite the fact that pregnant mothers are advised to start accessing antenatal care the first trimester, various studies have found that most women seek services lately during the second and third trimester (Dutamo et al., 2015: 4; Kifle et al., 2017: 4; Lera et al., 2017: 92; Seifu & Meressa, 2017: 2). The main factors associated with this was mothers recognizing late that they were pregnant and a history of inadequate support from their partners and healthcare providers during previous pregnancies (Weldearegawi et al., 2019: 3).

In general, the contribution of timely antenatal care services in reducing the high rate of maternal mortality is debatable. Oyerinde (2013), argues that accessing antenatal services, while helpful, will not yield significant reductions in maternal mortality; rather, early identification of the problem and intervention reduce the risk of morbidity and mortality.

2.3.2 Delivery service

While pregnancy is a healthy and natural state, it is also associated with serious risks of death and disability. Globally, an estimated 140 million births occur in a year (United Nations Children's Fund, 2016: 118-121); the majority of these women have not been assessed for risk factors related to complications at the time of labour. If complications occur during labour, they can increase the risk of serious morbidity and death for the mother or baby. The WHO stresses that improving the quality of care for pregnant mothers during child birth is not sufficient, however; provision of emotional support to mothers during labour, effective communication and respectful care are all important to achieve the desired person-centred outcome (WHO, 2018e: 8).

The WHO intrapartum care model proposes that a woman and her baby should be put at the centre of care and be given quality care in a well-functioning health facility (Oladapo et al., 2018: 919). This supports optimal health and minimises the risk of preventable maternal or infant death. The WHO intrapartum care model includes 56 evidence-based recommendations to ensure that all women receive evidence-based, equitable and high-quality intrapartum care; services should be delivered by skilled birth attendants and made

available to all women according to their need and preference in accordance with a human rights-based approach (WHO, 2018e: 168).

The term ‘skilled birth attendant’ refers to a competent maternal and newborn health (MNH) professional educated and trained to provide and promote evidence-based, appropriate, and excellent care to women; facilitate their psychologically readiness for labour and delivery; and refer women and/or newborn with complications (WHO, 2018d). As part of an integrated team, they also perform essential clinical procedures of emergency maternal and newborn care to optimise the health and wellbeing of women and newborns. Besides this, the attendance of births by a skilled health worker is used as a key indicator for monitoring progress toward Sustainable Development Goal (SDG) target 3.1 (United Nations, 2015: see Goal #3). It is also utilised by the two global strategies as part of their monitoring of progress towards the elimination of preventable maternal mortality (WHO, 2015d, 2016c).

Overall, maternity care provided to mothers should go beyond the level of persevering women and new born life, rather it should focus to positively change the life stay of women, families and communities (WHO, 2018e: 8). With this assumption, healthcare facilities should aim to deliver woman-centred care tailored to their needs and preferences and informed by a human rights-based approach (Oladapo et al., 2018: 920). The key interventions such as emergency obstetric care and immediate newborn care services provided at the time of childbirth with a skilled birth attendant contributes to the reduction of an estimated 40% maternal deaths (Bhutta et al., 2014: 5).

Since Ethiopia is one of the sub-Saharan African countries with a high maternal morbidity rate, a wide range of intervention strategies have been put in place by Government of Ethiopia (GOE) to ensure the accessibility of delivery services at all health facilities. These measures have brought about a significant improvement in the availability of skilled childbirth care services (Ethiopian Public Health Institute, 2017a). Based on the estimates of the Ethiopian Demographic Health Survey, the percentage of mothers who were assisted by skilled birth attendants increased from 6% in 2005 to 48% in 2019 (Ethiopian Public Health Institute & Inner City Fund, 2019: 14, Figure 3). Despite this, Ethiopia is still far from reaching the targets set by the Health Sector Transformation Plan (HSTP) (Jalu et al., 2019: 6-7). For instance, studies found that 95% of mothers in the Tigray Region (Tsegay et al., 2013: 5), 66% of mothers in Dembecha district (Kidanu et al., 2017: 4), 73% of mothers in Hadiya Zone (Asseffa et al., 2016: 4), 62% of women in Dega Damot district (Belay & Sendo, 2016: 3), 55. 3% of women in Yeky district (Negero et al., 2018:

3) and 88% of women in Sekela district (Teferra et al., 2012: 5) were delivered at home, with the assistance of either family members, neighbours or traditional birth assistants. This shows that delivery in health facilities with the help of skilled health personnel is not preferred by the majority of mothers (Jalu et al., 2019). There is, however, a significant disparity between the place of choice for delivery for rural and urban women, with women in urban areas more likely to make use of a skilled birth attendant than their rural counterparts (Ethiopian Public Health Institute & Inner City Fund, 2019: 14).

The preference of mothers for a home delivery is influenced by different factors related to poor quality of services provided in a health facility, cultural beliefs and religious views (Ababor et al., 2019; Adinew & Assefa,2017; Asseffa et al., 2016). For example, some studies have found that lack of close support from family members during labour, labour at night and spontaneous labour, not having any problem during labour, the belief that God will keep them safe during delivery at home, and the influence of family and community members have contributed to them choosing to give birth at home (Asseffa et al., 2016; G. S. Ayele et al., 2019; Teferra et al., 2012). Dissatisfaction with the delivery of services at health facilities also has been a factor in some women choosing home delivery (Tayelgn et al., 2011). Another study found that mothers were more likely choose to deliver at health facilities when they had concerns about having complications or when they were advised to do so during a visit to a health facility for antenatal care (Belay & Sendo, 2016).

2.3.3 Postpartum care services

Postpartum care services' refers to the care provided immediately after delivery and for the following six weeks (WHO, 2015b). This period is a critical phase in the lives of mothers and newborn babies, as most maternal and neonatal deaths occur during the first 48 hours after birth (Ethiopian Public Health Institute & Inner City Fund, 2019). According to World Health Organization & United Nations Children's Fund (2014), evidence, almost half of postpartum maternal deaths occur within the first 24 hours. This is also a critical transitional time for a woman, her newborn and her family on physiological, emotional and social levels (WHO, 1998). It is thus key to ensure the health of both mother and baby during this time to reduce complications following delivery that could result in maternal or neonatal death (Lawn & Kerber, 2006: 80).

The period after delivery tends to be the most neglected in terms of seeking skilled healthcare as compared to the time before and during childbirth (Benova et al., 2019; WHO, 2013: 6). For instance, globally less than half of women who gave birth in 2013 received a postpartum care visit within two days of childbirth (Bhutta et al., 2014). Without quality care, however, infants may not survive their first days or may live a life of diminished health (United Nations Children's Fund, 2016: 1). The complications most frequently resulting in the death of the mother after childbirth are severe bleeding, infections such as malaria, illness such as diabetes, or heart disease (WHO, 2019a). Besides this, the cultural practice that is common in parts of Africa of keeping mothers and babies indoors for the first month after birth has also contributed for an increased rate of maternal and neonatal mortality (Lawn & Kerber, 2006). An understanding of community beliefs and appropriate interventions to address these are thus key to providing good quality care during and immediately after delivery (WHO, 2019b: 7, Fig. ES. 2).

In light of these realities, the World Health Organization (2015d) recommends providing care for every mother and baby with a total of four postpartum visits – the first postpartum contact should be provided as early as possible within 24 hours of birth, the second postpartum check-up should be within 2 to 3 days, the third between 7 and14 days and the last check-up should be provided at six weeks. In order to improve the uptake of postpartum care services, mothers should have access to respectful and women-centred maternity care (WHO, 2015b: 3). Furthermore, it is also necessary to provide postpartum care services in a comprehensive and culturally sensitive way to respond to the needs of both mother and child (WHO, 1998: 4).

The care given to newborns is especially important to prevent disabilities, support cognitive function, promote early childhood development and reduce stunted growth; these aspects also help to break the cycle of intergenerational poverty and strengthen the nation’s human capital (WHO, 2019b: 14). Despite a high incidence of maternal and neonatal mortality in Ethiopia, the focus given to the postpartum care is very low compared to antenatal care and skilled delivery. One study found that only 34% of mothers accessed postpartum care in the first two days after giving birth nationally; this was true of only 32% of women in the SNNP region (Ethiopian Public Health Institute & Inner City Fund, 2019: 13, Table 5). In a study done in Hossana, only half of the women who have birth in a health facility had a postpartum check-up (Dutamo et al., 2015).

Other studies found that most mothers delayed getting postpartum check-ups (Mrisho et al., 2009: 7) or totally did not get a postpartum service during the first week after birth

(Fisseha et al., 2017b: 752). This low uptake of postpartum care services may result in an increased risk of preventable death to the mother and the newborn due to complications like undetected hypothermia or infection (WHO, 2018e: 8).

In one study, the reason most often given by mothers for not attending postpartum care was that they appeared to be healthy, they were unaware that postpartum care was available, they perceived healthcare staff as having a poor attitude, or they did not have sufficient information about their appointment (Wudineh et al., 2018). Another study found that mothers' perspectives of postpartum services, history of poorly provided care during previous health facility visits, financial constraints, and a lack of awareness about the risks of postpartum complications also influenced the uptake of postpartum services (Dutamo et al., 2015; Kifle et al., 2017). In light of this, Lawn & Kerber (2006) suggested that services provided after delivery should be based on the needs and health challenges mentioned above, incorporate all the essential elements required for the health of the mother and her newborn, and should be provided in an integrated fashion.

2.4 Prevention of maternal mortality

In the past, interventions to reduce maternal mortality tended to be focused on training unskilled birth attendants, community-based interventions, and preventing complications during pregnancy (Pagel et al., 2010;Piane, 2009; Stenberg et al., 2016). Although these strategies have resulted in substantial progress in reducing maternal mortality, this varies across contexts. In low- and middle-income countries, in particular, a significant number of women are still dying of pregnancy-related complications as these strategies have overlooked the significant impact of other risk factors associated with maternal mortality (WHO, 2019a). Beyond these, poverty, distances from services, lack of education, and cultural and religious practices have also impacted women's access to services (Nyfløt & Sitras, 2018). In light of this, Souza et al. (2013: 1754) emphasise the importance of implementing integrated intervention strategies that are designed for the specific conditions within a country. They note that vertical application of single elements of care may not reduce maternal mortality; rather, a substantial reduction in maternal mortality can be achieved by matching life-saving interventions with comprehensive emergency care and overall improvements in the quality of maternity care. Moreover, emphasis should also be given to simultaneously improving women's access to education,

addressing gender equity, poverty reduction, strengthening health systems, and improving the quality of care (Nyfløt & Sitras, 2018).

The prevention of maternal mortality is seen as not only a key health concern, but also a human right and a social issue. Globally, the maternal health agenda has shifted from focusing exclusively on the prevention of maternal deaths to promoting women's health and wellness (Firoz et al., 2018). Firoz and his colleagues viewed the maternity care provided during pregnancy as "a window of opportunity" to positively determine the outcome of the index pregnancy and future pregnancies, and to improve the long-term health and wellbeing of the woman. In view of this, Burchett & Mayhew (2009); Ogu & Ephraim-Emmanuel (2018) recommended different levels of maternal mortality prevention strategies to effectively to improve the overall health of women. These include primordial, primary, secondary, tertiary and quaternary levels of prevention.

2.4.1 Primordial prevention

Primordial prevention of maternal mortality aims to address the environmental, economic, social, behavioural and cultural factors associated with an increased risk of maternal mortality (Ogu & Ephraim-Emmanuel, 2018). It includes health promotion activities aimed at changing the cultural beliefs, norms, and practices that may contribute to the death of a women (Evans, 2013: 495). Interventions aimed at preventing maternal mortality must thus go beyond the provision of quality services; attention should also be given to change harmful traditional practices, cultural beliefs, norms, and behavioural patterns that hinder mothers from accessing these services (David, 2013).

There are other studies that have highlighted the influence of socio-cultural beliefs and practices on a women's decision to deliver at a health facility. These include the value given by society to traditional birth attendants (TBAs) as respected members of their communities who provide informal maternal care and advice to pregnant women, the view of home delivery as a valued, intergenerational practice, the inconvenience of trying to carry out cultural ritual practices at a healthcare facility, social and religious taboos regarding men being involved in delivery, and the fear of being subjected to unwanted medical interventions at a health facility, are all considerations that have been found to deter pregnant mothers from seeking care at health facilities (Ababor et al., 2019). These cultural beliefs and practices were deeply rooted in poverty, education, and gender disparity, which thereby is reported to be associated with higher maternal mortality (Nyfløt

& Sitras, 2018; Ronsmans & Graham, 2006). Intervention strategies must thus be culturally appropriate and acceptable in order to positively affect the uptake of professional maternity health care services by mothers (Coast et al., 2016: 1489). Educating women about the harmful effects of some beliefs can play a key role in changing cultural beliefs related to maternal health, increasing the uptake of maternal health services, and reducing maternal and newborn mortality in Africa (David, 2013). In addition to this, working towards improving gender equality and provision of education to women have been found to be important and beneficial strategies for reducing early marriage, advancing women's empowerment, and increasing the uptake of maternal health services (Nyfløt & Sitras, 2018). Some low-and middle-income countries have achieved good progress in reducing maternal mortality through policy-backed strategies and programmes invested in girls' education, poverty reduction, food security and infrastructure development (Ahmed et al., 2016).

2.4.2 Primary prevention

Primary prevention of maternal mortality is concerned with preventing risk factors that could potentially contribute to the death of a mother, which is attained through alteration of behaviours and exposures that result in increased maternal mortality (Ogu & Ephraim-Emmanuel, 2018). The prevention activities in this level focuses on the promotion of health behaviours the will reduce the occurrence of adverse pregnancy outcomes on the mother, including provision of targeted and individualised prenatal care; counselling on birth preparedness and proper nutrition; provision of accessible, affordable and quality essential obstetric care services; and encouraging the utilisation of maternity health services (Fantahun et al., 2013; Gülmezoglu et al., 2016). Accessing emergency obstetric services is an important primary strategy which may contribute significantly to reducing maternal and newborn mortality (Keyes et al., 2011: 95). The WHO also suggests that 60% of the population should have access to emergency obstetric care services within two hours of travel time to end preventable maternal mortality and meet SDG targets (WHO, 2015d, 2021).

Primary maternal health prevention strategies should thus focus on addressing behavioural factors that impact utilisation as well as promoting healthy practices among pregnant women.

2.4.3 Secondary prevention

Secondary prevention of maternal mortality is concerned with the prevention of obstetric complications (Burchett & Mayhew, 2009). It involves early detection and prompt treatment of pre-clinical pathological changes occurring during pregnancy and childbirth, as well as those occurring after delivery, with the aim of preventing adverse consequences for the mother including maternal death (Ogu & Ephraim-Emmanuel, 2018). Interventions delivered within the secondary prevention level have been found to be important to overcoming the initial delay in treatment that may occur when a woman does not recognise that a complication is developing and the secondary delay in gaining timely access to appropriate emergency obstetric care facilities (Campbell & Graham, 2006).

The secondary level of prevention can be achieved by providing quality maternal care services to ensure safe continuation of pregnancy. It requires ensuring that every women has access to skilled attendance during pregnancy and delivery in a fully functioning emergency obstetric care facility (Burchett & Mayhew, 2009: 80). To ensure the effectiveness of these emergency obstetric care services, health facilities should be accessible to every woman with complications, equipped with the essential supplies and drugs needed for lifesaving interventions, and staffed with skilled healthcare providers able to adequately manage complicated deliveries (Ministry of Health of Ethiopia, 2015).

2.4.4 Tertiary prevention

Tertiary prevention of maternal mortality deals with preventing the death of a mother after the occurrence of pregnancy-related complications (Burchett & Mayhew, 2009). It is aimed at addressing the adverse consequences arising from the complications on the woman's well-being, longevity, and quality of life (Ogu & Ephraim-Emmanuel, 2018). Evidence indicates that interventions implemented within tertiary prevention level are essential to tackle maternal health problems associated with the delay in receiving adequate healthcare in health facilities. This can be achieved by providing timely, quality maternity care services (Burchett & Mayhew, 2009).

The WHO estimates that approximately 15% of pregnancies go through a potentially life-threatening complication which results in severe physical or psychological damage to a woman (WHO, 2018b). Eighty percent of all maternal deaths have been found to be attributable to complications like the occurrence of severe bleeding after childbirth, infections that happen after childbirth, high blood pressure during pregnancy

(preeclampsia and eclampsia), gestational diabetes, pre-term labour and unsafe abortion (WHO, 2019a). Women who have developed such complications are at increased risk of long-term maternal morbidity and are more likely to experience similar complications in future pregnancies (Neiger, 2017). One study found that women who experience complications in pregnancy are more likely to develop coronary heart disease in later life compared to women who have had uncomplicated pregnancies (Andraweera et al., 2018). The occurrence of these complications calls for skilled care interventions as some will require a major obstetrical intervention to survive.

Tertiary prevention of maternal mortality thus focuses on the management of these complications in pregnancy that may lead to maternal death. It involves modifying risk factors that are associated with an increased rate of maternal mortality, with such interventions as diet management, weight loss, and increased physical activity (Neiger, 2017). For instance, nutritional interventions were found to be instrumental in improving women's haemoglobin, calcium, or iodine status and, thereby, reducing the risks of developing haemorrhage, eclampsia, or obstructed labour (Campbell & Graham, 2006). Moreover, tertiary prevention efforts focus on rehabilitating women's health and well-being by helping them to cope with disability resulting from complications that arise from pregnancy and childbirth (Ogu & Ephraim-Emmanuel, 2018: 3).

2.4.5 Quaternary prevention

Quaternary prevention is the set of health activities carried out to address unnecessary or inappropriate delivery of maternity services within the available health systems. Quaternary prevention of maternal mortality is aimed at ensuring that every pregnant woman can achieve and maintain a good quality of life (Ogu & Ephraim-Emmanuel, 2018: 3). This can be achieved through an appropriately designed standard of care. The WHO (2016a: 18) stresses the importance of maintaining a standard of care to ensuring quality of care. A standard of care represents a set of indicators that can help to measure program implementation and improvement of care.

A standard for maternal care is defined as "a description of what is expected to be provided to mothers to achieve a high-quality care around the time of pregnancy, childbirth, and immediately after the birth of child" (WHO, 2016a: 18). Health professionals and organisations involved in the provision of maternity care are expected to provide a standard, high-quality, equitable, safe and satisfying maternity care service to every

mother so as to optimise and improve the health outcomes of mothers. The WHO has formulated eight evidence-based intervention standards required for quality improvement during critical periods of care – particularly in provision of care, experience of care, and in cross-cutting areas.

Evidence has also shown that women who experience disrespect and abuse in the provision of health care are less likely to be motivated to use maternity care services again (Gebremichael et al., 2018). In light of this, Sen et al. (2018) call for the development of standards and guidelines to ensure appropriate service provision that includes tangible mechanisms of accountability. In addition, to ensure the provision of an improved standard of care that responds to the needs and concerns of mothers, Lazzerini et al. (2019), recommend that healthcare providers be trained on evidence-based practices, such as effective communication, respect and dignity, and emotional support strategies.

2.4.6 Community-level strategies

A somewhat neglected strategy in the reduction of maternal mortality and morbidity are those targeted at the level of women's local communities. Social and community structures can have a significant impact on decision-making regarding the uptake of facility-based maternal care. Women gain information on pregnancy and childbirth complications through interactions with media, health extension workers, health education sessions, and during antenatal care; whereas informal, community-based platforms such as religious gatherings and coffee ceremonies offer trusted spaces for sharing experiences and discussing maternal care (Kebede et al., 2016; Shifraw et al., 2016). Health information delivered through Health Extension Workers (HEWs) reaches mothers and strengthens their knowledge of maternal health services (Medhanyie et al., 2012). Among women who attend Pregnant Women's Conferences, and those with knowledge of pregnancy danger signs, are more likely to opt for institutional delivery (Asresie and Dagnew, 2019). Local organisations and networks, including church groups, also offer important platforms for circulating essential health messages (Mengesha et al., 2023).

2.5 Maternal health and maternal mortality in the Ethiopian context

2.5.1 Spatial and historical context of maternal health in Ethiopia

Ethiopia has one of the highest rates of maternal mortality in sub-Saharan Africa. The Fragile States Index recognised Ethiopia as one of 15 countries with a 'high alert' or 'very high alert' maternal mortality rate (Messner, 2017). In 2016, the Ethiopian Demographic and Health Survey (EDHS) recorded a maternal mortality ratio (MMR) of 412 deaths per 100,000 live births (Central Statistical Agency of Ethiopia & Inner City Fund, 2016: 252). In 2022, the WHO reported a MMR of 401 deaths per 100,000 live births (WHO, 2022b: 77).

While the maternal mortality rate is still very high, the EDHS has shown a reduction in the maternal mortality rate over time: from 871 deaths per 100,000 live births in 2000 to 673 deaths in 2005, 676 deaths in 2011, and 412 deaths in 2016 (2016: 252, Fig 13. 1). While Ethiopia has thus made progress in this regard over the past three decades, this progress still falls far short of the targets set by the Ethiopian Ministry of Health. One of the most important reasons for this steady decrease in maternal mortality is related with low uptake of maternal healthcare services. For instance, in 2000 95% of women in Ethiopia delivered at home (Central Statistical Agency of Ethiopia, 2000: 117).

A national assessment in Ethiopia found that low uptake of healthcare among women was linked to geographical barriers that make it difficult to reach health facilities, enduring sociocultural and gender barriers and a lack of quality and culturally sensitive care (Ministry of Health of Ethiopia, 2015). The 2000 Ethiopian Health and Demographic Survey found that the most significant reason women did not seek health care was lack of money, followed by the lack of health facilities in their area, and their family's refusal to allow them to seek care (Central Statistical Agency of Ethiopia, 2000: 126).

The expansion of key maternal healthcare interventions over the last three decades has made a significant contribution to improving the health of mothers. Since the enactment of the current Ethiopian health policy in 1985, a wide range of intervention strategies have been implemented that have made a significant contribution to reducing the rate of maternal mortality. As a result of this, the MMR was estimated to have dropped from 871 maternal deaths per 100,000 live births in 2000, to 412 deaths in 2016 (Central Statistical Agency of Ethiopia & Inner City Fund, 2016: 252). This achievement is in line with the increased uptake of antenatal and delivery services and postpartum care. The percentage of women receiving antenatal care from a skilled provider increased from 28% in 2005 to 74% in 2019; similarly; births delivered by a skilled provider in a health facility increased from 5% in 2005 to 48% in 2019 (Ethiopian Public Health Institute & Inner City Fund, 2019:

13). Having access to proper medical attention and hygienic conditions during delivery can reduce the risk of complications and infections that may lead to death or serious illness for the mother, baby, or both.

Moreover, there are wide disparities spatially in the burden of the problem across regions, across socio-economic status, geographic location, and other societal and individual characteristics (Ronsmans & Graham, 2006; WHO, 2019a). Globally, in 2017, the least developed countries were found to have a higher maternal mortality rate than developed countries; sub-Saharan Africa alone accounted for roughly 66% of deaths (WHO, 2019b: 33; 2019a). In Ethiopia, variance in uptake of maternal healthcare services was also observed across different parts of the country. The 2019 mini Demographic and Health Survey reported 97% uptake of antenatal care by women in Addis Ababa; in Somali, approximately half of women in Afar and Oromia, and two-thirds of women in SNNP had not sought antenatal care (Ethiopian Public Health Institute & Inner City Fund, 2019). There were also large differences across regions in the proportion of births assisted by skilled providers, ranging from 97% in Addis Ababa to only 26% in SNNP, 18% in Somali and 16% in Afar. Significant variation was also observed between urban and rural women with regard to giving birth in health facilities with the help of skilled healthcare providers (Ethiopian Public Health Institute & Inner City Fund, 2019). Similarly, the uptake of postpartum care varied across regions, ranging from 92% in Afar and Oromia and 86% in SNNP to 55% in Addis Ababa (Central Statistical Agency of Ethiopia & Inner City Fund, 2016: 133-160).

2.5.2 Causes of maternal mortality in Ethiopia

Despite the decreasing trend observed in maternal mortality, Ethiopia is classified as one of the countries where the rate of maternal deaths is still high (Messner, 2017; WHO, 2019a). Maternal mortality is largely due to preventable causes, such as complications during pregnancy (e.g. hypertensive disorders, postpartum haemorrhage, obstetric fistula), complications of preterm birth, and communicable diseases (e.g. lower respiratory infections, gastrointestinal infections) (Assefa et al., 2017; Tessema et al., 2017). Maternal deaths attributed to direct obstetric causes ranged from 85% in the national maternal death surveillance response (MDSR) system report (Ethiopian Public Health Institute, 2017b) to 97% in a study conducted in Jimma in south-western Ethiopia (Legesse et al., 2017).

While abortion was the primary cause of maternal mortality in the past; more recently studies have indicated that the number of maternal deaths related to abortion and obstructed labour has greatly decreased, whereas maternal deaths due to hypertensive disorders and haemorrhage has shown an increasing trend (Berhan & Berhan, 2014c: 17-26; Mekonnen et al., 2018). Findings from other studies in eastern Ethiopia revealed that the leading pregnancy-related causes which contributed to the death of mothers were postpartum haemorrhage and hypertensive disorders of pregnancy (Legesse et al., 2017; Tesfaye, Loxton, et al., 2018). Similarly, a report by the MDSR also found that obstetric haemorrhage was the leading cause of maternal death, followed by hypertensive disorders in pregnancy (Ethiopian Public Health Institute, 2017b).

Besides direct causes of maternal mortality, indirect causes have also contributed a significant percentage of the death of mothers in Ethiopia (Ethiopian Public Health Institute, 2017b). The risk of maternal mortality has increased among mothers who experience home deliveries and have many pregnancies (Berhan & Berhan, 2014b; Yaya et al., 2014). Other studies have identified other factors resulting in maternal mortality, including partner violence, availability of transport to medical facilities, and infections such as influenza, anaemia, malaria, tuberculosis, and hepatitis (Mekonnen et al., 2018; Tesfaye, Loxton, et al., 2018; Tessema et al., 2017). In south-western Ethiopia, lower maternal mortality rates were reported among mothers with improved transportation mechanisms to health services (Yaya et al., 2014).

It has been found that approximately half of all maternal deaths occur within six weeks after giving birth, followed by deaths that occur during pregnancy and labour (Yaya et al., 2014). Similar findings from the Global Burden of Diseases study also reported that the majority of maternal deaths happened during the postpartum period (Tessema et al., 2017). In Ethiopia, the first 48 hours following birth was reported to account for a most of maternal fatalities (Ethiopian Public Health Institute & Inner City Fund, 2019). This could be related to a low uptake of maternal healthcare services after the birth of the child as well as limited awareness of the community about causes of maternal death and postpartum complications (B. Ayele et al., 2019; Ethiopian Public Health Institute & Inner City Fund, 2019). Moreover, the delays in the decision to access care, delays in arriving to the health facility, and delays in receiving care because of lack of supplies and equipment were also found the main factors contributing to the death of mothers (Ethiopian Public Health Institute, 2017b).

2.5.3 Policy interventions related to maternal health

With a view to improving the health and well-being of women, the government of Ethiopia has given due attention to addressing the healthcare needs of women and children by ensuring accessibility of promotive, preventive, curative and rehabilitative components of care of adequate quality (Transitional Government of Ethiopia, 1993: ; Priority 8). In line with this policy, a twenty-year strategic plan was prepared with a sequence of five-year health sector development plans (HSDP). The HSDP plans give special attention to ensuring the accessibility of quality maternal, newborn, child and adolescent health services for individuals, families and communities in a cost effective manner (Ministry of Health of Ethiopia, 2011a: 54). The HSDP plans aim to reduce the maternal mortality rate to 46 per 100,000 live births, increase the uptake of antenatal care (at least 4 visits) to 87%, increase the attendance births by skilled practitioners to 95%, and ensure accessibility of EmONC services for all mothers and neonates by 2035 (Minstry of Health, 2020). These targets are to be achieved by employing a range of maternal health interventions identified by the Ministry of Health, which include emergency obstetric care, quality maternal and newborn healthcare, an emergency obstetrics referral network, maternal death surveillance and response, elimination of obstetric fistula, safe abortion services, increasing the number of kebeles which are free from home delivery, and reproductive health services for youth & adolescents (ibid). As a result of the strategies implemented through the HSDP plans, dramatic achievements have been attained in terms of an increase in the uptake of maternal health services and a decrease in the maternal mortality rate (Central Statistical Agency of Ethiopia & Inner City Fund, 2016: 250-252; Ethiopian Public Health Institute & Inner City Fund, 2019: 12-14).

Besides this, various efforts were made by the government of Ethiopia to involve communities and community health workers in order to address the sociocultural, economic, political, geographical and environmental determinants of the health and well-being of women (Hadis et al., 2014: 12; WHO, 2011: 3). For example, the Ethiopian government has initiated health extension programme (HEP), Women's Health Development Army (HDA), Pregnant Women Conference (PWC), and prepared maternity waiting homes to help pregnant mothers spend the last few days of their pregnancy close to a health facility (Ministry of Health of Ethiopia, 2011a: 42). These approaches have helped to reduce inequities in access to the most vital maternal health services and have resulted in increased uptake of maternal healthcare services by raising awareness and engaging the agency of mothers to access services (Assefa et al., 2019: 4-5).

Efforts to strengthen healthcare systems through the continuous improvement of health-related legal frameworks, such as policies, guidelines and standards, should be given priority in countries such as Ethiopia where high maternal morbidity and mortality rates persist. Accordingly, this study tries to assess policy-related challenges that contribute to the low uptake of health services by mothers in Ethiopia and specifically in the Sidama region on which the study focuses.

2.5.4 Maternal healthcare services in Ethiopia

In Ethiopia maternal health issue is given more attention and different maternal healthcare interventions were being implemented to improve the health of the mother and the new born. Maternal healthcare services were designed in a way that the uptake of health service utilisation, ensure equity and quality as well as an effective referral system, and improve clients' satisfaction through evidence-based health system interventions (Ministry of Health of Ethiopia, 2022).

The Government of Ethiopia has developed a health policy aimed at ensuring women's access to preventive, promotive and curative components of healthcare services (Transitional Government of Ethiopia, 1993). The country uses a three-tier health-care delivery system: the primary health-care level consisting of district hospitals, health centres and health posts, the secondary level, which comprises general hospitals, and the tertiary level, which consists of specialised hospitals (Ministry of Health of Ethiopia, 2015). More specialised care is provided by general and specialised hospitals compared to primary health-care units, because these hospitals have more specialised personnel and better diagnostic and treatment facilities.

The Health Sector Development Programmes (HSDPs) are implemented by the Ministry of Health to achieve the objectives of the health policy to ensure universal access to- and utilisation of health services. HSDPs cover twenty years and are divided into five year plans to aid the implementation of the priorities and strategic objectives of the Ethiopian health policy (Ministry of Health of Ethiopia, 2015). In a similar way, the Ministry of Health-Ethiopia (MoHE) has also developed a range of guidelines which are focused on improving maternal and child health status, including the National Antenatal care Guideline (Ministry of Health of Ethiopia, 2022), the Adolescent and Youth Health Strategy (Ministry of Health of Ethiopia, 2016a), the Family Planning Guideline (Ministry of Health of Ethiopia, 2011b), the Abortion Guideline (Ministry of Health of Ethiopia, 2006), and the Strategy for Child

Survival (Ministry of Health of Ethiopia, 2005). These strategies and guidelines were implemented to reduce the rate of maternal mortality by providing timely antenatal care services during pregnancy; delivery at a health facility with skilled healthcare providers under hygienic conditions; reducing complications and infections during labour and delivery; timely postpartum care that treats complications arising from delivery; and educating mothers on how to care for themselves and their infants (Ministry of Health of Ethiopia, 2015: 25-31).

The Health Extension Programme is used as a primary vehicle to provide basic maternal health services and link with primary health facilities. It focuses on providing preventive care, health promotion, promoting behavioural change and providing basic curative care services (Ministry of Health of Ethiopia, 2011a: 42). For this reason, the Health Extension Workers have worked hard to reduce inequities in access to the most vital maternal health services and have achieved success in improving maternal service utilisation by raising the awareness of mothers (Assefa et al., 2019). The Health Extension Programme has contributed significantly to improving the uptake of maternal healthcare and reducing maternal mortality (Banteyerga, 2011: 48-49; Rieger et al., 2019: 380).

Health facilities, such as health centres and hospitals, are the main hubs for the reduction of maternal mortality as they provide maternal healthcare services and are equipped to provide basic emergency obstetric and newborn care (BEmONC) and comprehensive emergency obstetric and newborn care (CEmONC) services (Ministry of Health of Ethiopia, 2011a: 42). Despite these initiatives, the number of mothers who utilise the available services is still very low (Ethiopian Public Health Institute & Inner City Fund, 2019). The main reasons associated with poor maternal health service utilisation were poor quality of the service (Biadgo et al., 2021; Hagaman et al., 2020). This finding is supported by a study done in northern Ethiopia, where only 6. 25% of maternal health facilities were rated as delivering good quality services in three quality measurement areas, including input (materials, infrastructure and human resources), process (adherence to standard care during intrapartum and immediate postpartum periods) and output (satisfaction of mothers and utilisation of maternal health services) (Fisseha et al., 2017a: 3). Therefore, to ensure the quality of maternal health services, health facilities are expected deliver efficient, patient-centred, equitable, safe and timely maternal healthcare services to achieve the objectives laid out by the Ethiopian government (Ministry of Health of Ethiopia, 2015: 87).

Ethiopia also uses designed community-based strategies to enhance communities' participation in and ownership of maternal and child health programs. The involvement of the community was identified as a key driver for an improved driver utilisation of maternal healthcare service (Ministry of Health of Ethiopia, 2015: 85). This enables healthcare providers to identify and incorporate community views and ideas into the existing healthcare system and, thereby, improve maternal and newborn health (Elmusharaf et al., 2015: 5; WHO, 2015c: 13). For instance, availing of maternity waiting homes near health facilities, strengthening of the Health Developmental Army (HDA) and the conducting monthly pregnant women conference (PWC) were identified as key strategies to enhance the participation of the community and ownership in the maternal health issues as well as it helps to reduce cultural barriers and enable mothers to use maternal healthcare services (Ministry of Health of Ethiopia, 2015: 87). It also provides opportunity to improve communities' awareness of the importance of utilising maternity care services and results in stronger ownership of the maternal health program by the community (Byass, 2018: 2).

Maternity waiting homes are housing facilities within easy reach of emergency obstetric care services that enhance access to care by bridging the topographical gap between women and maternal health services (United Nations Population Fund, 2018: 3-5). Maternity waiting homes provide an opportunity for the expecting mother to get the necessary social support from their family members while staying near a health facility. It also allows the mother to practice traditional and religious beliefs that may not be possible to practice at a health facility (Kebede et al., 2019: 4). As a result of these factors, mothers who used maternity waiting homes expressed satisfaction with this service (Kebede et al., 2019: 4).

Another strategy used by the Ethiopian health system to involve the community in addressing maternal health problems is the Health Development Army (HDA), which was created to increase community participation. The HDA is a collaborative network of neighbouring household women's which can be to enhance the participation of the community in maternal health issues and also used as means of demand creation for utilising maternal healthcare and ensure sustainability of health programs (Ministry of Health of Ethiopia, 2016b; 2015: 65). In addition to this, it has an important role in the improvement of maternal health and support the key principles of primary healthcare (Balabanova et al., 2017). Hence, strengthening the role of HDA members in maternal health care services can contribute to an improved uptake of services among women

(Damtew et al., 2018: 11; Yitbarek et al., 2019: 6) and is associated with a decrease in maternal deaths (Rieger et al., 2019: 378).

Similarly, the Pregnant Women Conference (PWC) is a community engagement activity aimed at creating awareness and motivating mothers to seek maternal and newborn health services in a timely manner. The conference is also designed to facilitate peer support among pregnant women in relation to seeking and accessing skilled care during pregnancy, childbirth, and the postpartum period. The monthly Pregnant Women Conference has helped to increase institutional delivery and the uptake of maternal health services (Asresie & Dagnew, 2019: 4); those who have participated have been found to have more awareness of the danger signs related to obstetrics and neonatal health than those who didn't attended the conference (Asresie et al., 2019: 3).

Maternal health services in Ethiopia have given more emphasis to the health of mothers and infants by strengthening the quality of care provided to the mother, by improving the skills of healthcare providers and by ensuring community engagement in program implementation. In all these strategies, the health care professionals working at different levels of the health care system including the Health Extension Workers play a key role in linking the community with the primary health facilities; this has resulted in a 69% reduction in the rate of maternal mortality since the 1990s (Ministry of Health of Ethiopia, 2015: 24).

2.5.5 Home Delivery and Maternal Mortality

In Ethiopia, social and cultural practices such as laying a pregnant woman on smoked leaves, or pouring butter over her body and massaging her abdomen to facilitate spontaneous delivery, contribute to the choice not to access health services - and thus contribute to maternal mortality (Adinew & Assefa, 2017). The tradition of keeping a pregnancy secret out of fear of miscarriage, or the cultural belief that burying the placenta inside the home will prevent bad luck are also factors that influence women's decisions against institutional delivery in Sidama region in Ethiopia (Kea et al., 2018).

The strong link between home delivery and maternal mortality observed in Ethiopia is not unique to the region, but is a global concern, particularly in low-income countries with limited access to skilled birth attendants and healthcare facilities (WHO, 2018d: 2). Research indicates that home delivery without skilled attendants significantly increases the risk of complications such as postpartum haemorrhage and obstructed labour, leading

to higher maternal mortality rates compared to facility-based deliveries (Krepelka et al., 2023; Sahito & Shuja, 2023).

Home delivery is a common practice in different regions of Ethiopia, with rural areas showing higher rates compared to urban areas (Abebe et al., 2012; Hailu et al., 2021; Mekonnen et al., 2021; Samuel et al., 2021; Tessema & Tiruneh, 2020). Many mothers prefer home births assisted by traditional birth attendants (TBAs) due to perceived cultural and religious alignment with their beliefs (Ababor et al., 2019; King et al., 2015). However, TBAs lack the necessary skills to manage complications, leading to delays in seeking timely medical care and contributing to higher maternal mortality rates associated with home delivery (Bibbo & Shirazian, 2013; Gurara et al., 2020; Omosivie & Rosemary, 2020).

The major causes of maternal mortality at home in Ethiopia include obstetric hemorrage, hypertensive disorders in pregnancy, childbirth complications, and obstructed labor, all largely avoidable with skilled care (Sara et al., 2019; N. Tesfay et al., 2022). These complications are worsened by the lack of skilled birth attendants and lacking access to emergency obstetric services during home deliveries, leading to higher mortality rates among women who deliver at home compared to those who deliver in healthcare facilities (Krepelka et al., 2023; Sahito & Shuja, 2023).

Addressing this issue requires a comprehensive understanding of the sociocultural, economic, and healthcare system factors contributing to the preference for home delivery and the barriers to accessing skilled care, highlighting the importance of studies like ours in addressing this critical public health challenge globally.

2.6 Research gap

Despite the increase in the number of mothers accessing antenatal care services in Ethiopia, the number of mothers who use skilled birth attendants to assist them is very low. This gap between the uptake of antenatal care and the uptake of skilled assistance during birth shows that challenges remain in terms of mothers making use of the recommended maternal healthcare services (Fantahun et al., 2013). Research is needed to further investigate this gap as it is the main contributing factor for poor uptake of maternal health services in developing countries.

Methodological Gap: Previous studies on maternal health service utilisation in Ethiopia have not specifically honed in on the Sidama region, where uptake of maternal services is particularly low (Kea et al., 2023); and have used only quantitative methodologies, as opposed to the qualitative techniques used in this study to better understand local perspectives and lived experiences.

Contextual Gap: There has been insufficient research into the factors related to utilising maternal healthcare services, particularly from the perspective of mothers and community members. The effect of barriers on maternal health service utilisation is not clear, and there are also limited studies in this regard in the study area, Sidama Region.

Theoretical Gap: Existing theoretical frameworks, including the Theory of Planned Behaviour (TPB) and the Socio-Ecological Model (SEM), have been applied to maternal health research but have not been adequately integrated or adapted to account for the specific socio-cultural and structural barriers in Sidama. This study addresses this gap by developing an integrated, context-sensitive conceptual framework.

Empirical Gap: There is a lack of in-depth qualitative research exploring the lived experiences of mothers and community members regarding maternal health service utilisation in the Sidama region. This study fills this gap by providing rich, nuanced data on community perspectives.

2. 7. Conclusion

In this chapter, findings from different studies were reviewed to explore how previous thinking and research could help to illuminate the framework of this study, as well as shape the actual problem statement and purpose of the study. The literature reviewed in this study show that there have been improvements in maternal health services utilisation and also in the rate of maternal mortality globally and nationally. However, these achievements fall short of the targets set for the Sustainable Development Goals. In addition, there are disparities across countries and women in developing states remain more vulnerable to pregnancy-related complications.

Despite the increase in the number of mothers accessing antenatal care services in Ethiopia, the number of mothers who use skilled birth attendants to assist them is very low. This gap between the uptake of antenatal care and the uptake of skilled assistance during birth shows that challenges remain in terms of mothers making use of the

recommended maternal healthcare services (Fantahun et al., 2013). Research is needed to further investigate this gap as it is the main contributing factor for poor uptake of maternal health services in developing countries. This study focused on exploring and understanding the perspectives of communities regarding the uptake of maternity care and factors that hinder this, and putting forward contextually appropriate intervention strategies to address this problem in the study area. To this end, chapters three and four of this thesis outline the procedures and other considerations relevant to answering the research question and sub-questions, and achieving the objectives of the research.

CHAPTER THREE: THEORETICAL TOOLS FOR UNCOVERING COMMUNITY PERSPECTIVES OF MATERNAL HEALTH SERVICES

3.1 Introduction

In this chapter, the theoretical underpinnings and frameworks applied in this study are discussed in detail. The chapter starts by highlighting the importance of theories in guiding the research intention to understand behavioural factors in the uptake of healthcare services by mothers. The chapter also provides a detailed description of the theoretical framework employed to explore the research problem, and its application and adaptation for a specific focus on maternal health services utilisation in a rural area.

3.2 The role of theory in research

A theoretical framework serves as a guide on which to build, shape and support the research under investigation (Grant & Osanloo, 2014: 13). Theories are essential in any research project as they help to define and develop a structure to determine the line of inquiry, the hypothesis and the methods to be followed in the course of the research (Holloway, 2005: 7). Moreover, theories are significant in the research endeavour as they guide the definition of the research question and the analysis of the phenomena in relation to the study context (Pescosolido, 2006: 194). Social researches consider theoretical concepts as the main building blocks of scientific inquiry (Salazar et al., 2015). A theoretical framework consists of relevant constructs that explain the selected problem and inform the design of the study and the understanding and interpretation of the logic of the phenomenon (Bhattacherjee, 2012: 25).

A classical definition of a theory is provided by Polit & Beck (2009); they state that a theory is “a set of concepts and propositions that form a logically interrelated system that provides a mechanism for logically deducing new statements from the original propositions”. Kerlinger (1986), (cited in Gray (2004: 5), defines theory as “a set of interrelated concepts definitions, and propositions that present a systematic view of phenomena by specifying relations among variables, with the purpose of explaining and predicting phenomena”. This highlights the importance of theories in explaining, organising, describing or predicting future occurrences of the phenomena under investigation and in accordance

with the study context researchers will easily understand and measure the observed meaning of the phenomena by using theoretical frameworks.

Social researchers define theory as a system of logical statements or propositions that explain the relationship between two or more ideas, concepts, phenomena, or other human characteristics in a study (Berg, 2001: 15). These observed ideas, concepts, or phenomena can be translated into two theoretical explanations – either phenomenological or explanatory (Salazar et al., 2015: 36-37). Phenomenological theory provides general description of the phenomena without relating it to a specific context; explanatory theory explains the reasons for the underlying causes. Theory thus has a significance role in research in terms of providing a foundation for either describing or explaining the study phenomenon. In the context of this study, which aims to explore community perspectives of the use of maternal health services, theories can contribute significantly to describing or explaining the causative interactions between physiological, environmental, and psychological variables and to informing maternal health advocators in designing better interventions to address maternal health problems (Salazar et al., 2015: 36).

Bhattacherjee (2012: 25), identifies four ways in which theory contributes to research. First, as has been discussed, theory provides a basis for describing and explaining the logic underlying a phenomenon. Second, theory serves as a tool for making sense of prior empirical findings and reconciling contradictory findings. Third, theory helps researchers to identify key areas that warrant further study and shape new investigations into these areas. Fourth, theory creates a springboard for new knowledge to be produced when connections are made between theories, or when theories are critiqued and modified.

Various scholars argue that theory, research and practice are interlinked concepts and that it is important to base research on theory in order to structure the study in a focussed way that supports understanding the study phenomenon (Bordens & Abbott, 2011: 44; Whitehead, 2007). Flick (2010: 57, 2014: 21), emphasises that the application of theory in a research process is instrumental to conceptualising the empirical investigation of participant's experiences, actions, and interactions, as well as to the analysis of data.

In light of this, researchers have employed a range of theoretical frameworks for studies related to the uptake of maternal health services. The health belief model is one theoretical framework that has been used in different studies to explore the uptake of health facilities for childbirth and prenatal care by mothers (Kahsay et al., 2019; Kiango, 2015; Mekonnen et al., 2019; Naanyu et al., 2020; Nelson et al., 2021; Nyachwo et al., 2019; Tungaraza,

2020). While the health belief model has been used widely in studies focusing on understanding behaviours related to the uptake of maternal health services, the model focuses on the health-related factors driving behaviours but fails to recognise other factors such as social acceptance, personally and socio-culturally determined expectations, the influence of factors in the health system, social support systems, and environmental factors such as low income, cultural norms or inconvenient service access arrangements (Davidhizar, 1983). In addition, one of the most common criticisms of the model is that there is agreed criteria on how the constructs of the model should be operationalised and the relationships between the variables in the model are not specified (Jones et al., 2014; Orji et al., 2012). Given these criticisms that the model fails to consider key environmental and interpersonal factors, the effectiveness of the model is under question.

The Andersen-Newman model has been employed in other studies to understand the utilisation of antenatal, delivery, and postpartum care services (Alamneh et al., 2022;Gebrekirstos et al., 2021; Tesfaye, Chojenta, et al., 2018). The Andersen-Newman model incorporates both individual and contextual determinants that predispose, enable, or suggest the need for individual use of health services (Andersen, 2008). However, the model has been criticised by some authors for failing excluding some factors in the uptake of healthcare, such as not being sensitive to diverse cultural and structural barriers and psychosocial factors (Lederle et al., 2021). Besides this, the complexity of the analysis that results using this model make it impossible to identify which factors have the strongest influence on the use of health services (Babitsch et al., 2012). Since these factors are important in the design of key interventions for the specific context in this study, the Andersen-Newman model was not deemed suitable for this study.

Other studies have employed different models to explain health service utilisation behaviour, such as the Theory Of Reasoned Action, which was used to identify intentions and barriers to service use in Zambia (Sialubanje et al., 2014); Social Learning Theory, used to assess sociocultural determinants of health service utilisation (Dapaah & Nachinaab, 2019); and Network Episode Model, used to examine the influence of the socio-structural context (Edmonds et al., 2012). However, these models focused only on limited aspects of maternal health service utilisation and their application is not supported with sufficient evidence to apply in this study.

Since the utilisation of maternal healthcare services by pregnant women is determined by a complex series of psychological, social, structural, and environmental factors, any investigation needs to include systematic exploration of the issue from diverse

perspectives in order to ensure the development of effective interventions that can alleviate the problem (Bowling, 2009; WHO, 1986). The selection of suitable theories for the theoretical framework of this study was thus made by taking into account the model's effectiveness in supporting the observed reality, the extent of parsimony with the study concepts, and its plausibility in fitting with current reality (Glanz et al., 2015). To this end, theories that facilitate the exploration and understanding of maternal health service utilisation from diverse perspectives, were selected and applied.

To frame the overall research process, the theory of planned behaviour (TPB) and the socio-ecological model (SEM) were employed. The theory of planned behaviour was employed to get insight into personal motivational factors that influence behaviour (Ajzen & Driver, 1991). The socio-ecological model was utilised to explore social and environmental determinants that influence mothers' use of healthcare services at different levels (Max et al., 2015).

Using two theoretical constructs facilitated the exploration of personal, socio-cultural, environmental, societal, health-service and policy-related factors associated with maternal health service utilisation and to bring these diverse concepts into a unified frame. Furthermore, combining multiple theories for a specified research area proved vital to explain the meaning, nature, experiences, and challenges, as well as to come up with more effective maternal health interventions compared to what could be derived by using a single theory (Prestwich et al., 2015). Knowledge generated through an integrated use of theories thus provides richer understanding from which researchers, government officials, policy makers, and other stakeholders can draw to take action in informed and effective ways (Glanz et al., 2015). The theory of planned behaviour and the socio-ecological model, and their relevance to this study, are discussed in the next section.

3.3 Theory in maternal health research

Researchers have employed a range of theoretical frameworks for studies related to the uptake of maternal health services in lights of empirical investigation of participants' experiences. The health belief model is one theoretical framework that has been used in different studies to explore the uptake of health facilities for childbirth and prenatal care by mothers (Kahsay et al., 2019; Kiango, 2015; Mekonnen et al., 2019; Naanyu et al., 2020; Nelson et al., 2021; Nyachwo et al., 2019; Tungaraza, 2020). While the health belief model has been used widely in studies focusing on understanding behaviours

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Various studies conducted on the uptake of maternal health The Andersen-Newman model has been employed in other studies to understand the utilisation of antenatal, delivery, and postnatal care services (Alamneh et al., 2022; Gebrekirstos et al., 2021; Tesfaye, Chojenta, et al., 2018). The Andersen-Newman model incorporates both individual and contextual determinants that predispose, enable, or suggest the need for individual use of health services (Andersen, 2008). However, the model has been criticised by some authors for failing excluding some factors in the uptake of healthcare, such as not being sensitive to diverse cultural and structural barriers and psychosocial factors (Lederle et al., 2021). Besides this, the complexity of the analysis that results using this model make it impossible to identify which factors have the strongest influence on the use of health services (Babitsch et al., 2012). Since these factors are important in the design of key interventions for the specific context in this study, the Andersen-Newman model was not deemed suitable for this study.

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Since the utilisation of maternal healthcare services by pregnant women is determined by a complex series of psychological, social, structural, and environmental factors, any investigation needs to include systematic exploration of the issue from diverse

perspectives in order to ensure the development of effective interventions that can alleviate the problem (Bowling, 2009; WHO, 1986). The selection of suitable theories for the theoretical framework of this study was thus made by taking into account the model's effectiveness in supporting the observed reality, the extent of parsimony with the study concepts, and its plausibility in fitting with current reality (Glanz et al., 2015). To this end, theories that facilitate the exploration and understanding of maternal health service utilisation from diverse perspectives, were considered, in order to select and apply the most suitable framework for this study.

Services have been guided by a range of theoretical frameworks. Researchers employed the Health Belief Model, the Andersen Behavioural Model, the Reasoned Action Approach, Theory of Planned Behaviour, and Social Ecological Model, to explain the factors that influence maternal health service utilisation, such as individual beliefs, social and cultural determinants, and healthcare system characteristics.

3.3.1 The Health Belief Model

The health belief model (HBM) is one of the commonly used theoretical framework in research aimed at understanding and explaining health behaviours. It provides a framework for understanding individuals' beliefs about their health condition and the effectiveness of health services in improving health outcomes (Salazar et al., 2019). The model asserts that likelihood of taking the recommended health action is predicted by the individual's perspectives about susceptibility to risk, severity or consequences of the condition, benefits of taking action in reducing the risk, barriers to perform a behaviour, cues to action that motivates behaviour change, and self-efficacy or confidence to perform a behaviour successfully (Hayden, 2019; Skinner et al., 2015).

The HBM has been used in various studies to understand and analyse factors influencing maternal health services uptake (Mekonnen et al., 2019; Naanyu et al., 2020; Tungaraza, 2020). For instance, a study conducted in Ghana find that the HBM constructs of perceived susceptibility to experience complications, self-efficacy to overcome barriers and cues to action to prepare for birth were key factors influencing women's utilisation of skilled health personnel (Nelson et al., 2021). Studies in Ethiopia also identified perceived susceptibility to delivery-related complications, perceived barriers to accessing a health facility, and cues to action determines the utilisation behaviour of institutional delivery service (Kahsay et al., 2019; Nigusie et al., 2022).

On the other hand, Rizqi & Rubai (2020) used the HBM concept to identify the causes of maternal deaths and develop problem solving plan. Despite the wide use of the model, it is criticised for its limited scope in explaining determinants beyond the individual level like healthcare system, social and structural factors (Nigusie et al., 2022; Rizqi & Rubai, 2020). However, the uptake of maternal health services is influenced by a range of factors from demand and supply side (Khatri et al., 2022; Shallo et al., 2022). This shows that HBM constructs are insufficient to determine the factors that predict the behaviour as well as the success of HBM-based interventions (Jones et al., 2014; Orji et al., 2012) These limitations have led to questions regarding the effectiveness of the model to have a comprehensive understanding of factors related to maternal health services uptake.

3.3.2 The Andersen-Newman Behavioural Model (ANBM)

The Andersen and Newman Behavioural Model (ANBM) is a theoretical framework that has been widely used to understand and explain factors influencing health service utilisation. The model depicts causal linkages and pathways to systematically analyse contextual determinants that lead to health service use and then to health outcomes (Andersen, 2008; Chen & Gu, 2020). According to the ANBM, three important interrelated factors determine individual's use of health services, namely predisposing, enabling/inhibiting and need factors (Andersen, 1995). Predisposing factors include socio-cultural and demographic characteristics of the individual as well as health beliefs and attitudes towards healthcare; enabling factors refer to resources and opportunities that facilitate or hinder access to use the services; and need factors are the most immediate cause of health service use like perceived health status of the individual and health professionals' evaluation of people's healthcare needs.

The model has been used in studies exploring the utilisation of maternal health services (Alamneh et al., 2022; Gebrekirstos et al., 2021; Tesfaye, Chojenta, et al., 2018). A qualitative study A qualitative study finding showed that the women's decisions to give birth at home is influenced by predisposing factors like value given to traditional and socio-cultural practices, religious beliefs, women's autonomy and personal characteristics; enabling factors such as rude behaviour, poor treatment and negligence by healthcare providers; and need factors like fear of caesarean section or assisted delivery (Alatinga et al., 2021). Another study finds that both contextual and individual determinants were strongly contributed to receive the recommended number of antenatal care (ANC) visits (Neupane et al., 2020).

Finding from the analysis of 2000 to 2016 data on Ethiopian mothers indicated that the use of unskilled attendants during delivery is determined by predisposing, need and community level factors such as residence, household wealth, educational status of the women and their partners, four or more ANC visits, having any form of employment and mass media engagement (Mekonnen et al., 2021). Analysis of 2000–2016 data Analysis of 2000–2016 data on ANC use shows that residence, husband's education, maternal occupation, information about pregnancy complications, caesarean delivery and family sizes have contributed for delayed first ANC visit (Alamneh et al., 2022). Another study also found that maternal healthcare use among adolescent mothers was determined by predisposing factors like individual and community healthcare preferences, where the presence of social support was an enabling factor (Alex-Ojei et al., 2023).

The ANBM is useful for understanding the determinants of maternal health service utilisation. However, there are limitations in some measures of healthcare utilisation. Chen & Gu (2020), argued that the nature of the association between individual's healthcare utilisation and health status has bidirectional association, which makes it difficult to determine whether use of healthcare improved health or whether poorer health triggered more use of healthcare. The other model's limitation is it overlooked some factors that can affect service use and the continuity of use, which includes users' past experiences with healthcare and dynamics of learning and adaptation of utilisation behaviours (Zhang et al., 2017).

The model has also been criticised for focusing mostly on individual-level factors and its limited consideration of cultural, structural, and psychosocial determinants, as well as the role of healthcare providers and service quality on health service utilisation (Lederle et al., 2021), and for its complex analysis in identifying factors that influence the use of health services (Babitsch et al., 2012). These limitations led to conclude that the model was not appropriate for understanding broader factors related to maternal health services uptake in the specific context.

3.3.3 The Reasoned Action Approach (RAA)

The Reasoned Action Approach is a generalised, belief-based theory that identifies sets of personal, social, and control-related factors that predict health behaviour (McEachan et al., 2016). The RAA is formulated by Fishbein & Ajzen (2011) from the theory of reasoned action and the theory of planned behaviour, to identify a relatively small set of

variables that can account for a substantial proportion of the variance in any given behaviour (Fishbein, 2008). The model posits that an individual's behaviour is determined by behavioural intention, which, in turn, is influenced by attitudinal, normative, and control beliefs (Fishbein, 2008). Attitude refers to an individual's positive or negative evaluation of the behaviour in question, perceived norms encompass perceived social pressure to engage or not engage in the behaviour, and perceived behavioural control reflects the individual's perceived ease or difficulty in performing the behaviour (Fishbein & Ajzen, 2011). These variables together explain a large proportion of the variance in behavioural intention, and thereby predict health behaviour.

The model has been applied in studies to investigate the uptake of maternal healthcare services. the model was used to assess pregnant adolescents and young women intention to use ANC services (Sewpaul et al., 2022). A study conducted in Zambia and Ethiopia showed that attitude, perceived social norms, and perceived behavioural control determine women's intention to use maternal healthcare services (C. Sialubanje et al., 2017; Taye et al., 2022). Another study from South Africa reported that the RAA constructs of personal beliefs, norms from the workplace practice, and the time pressure and constraints upon the nurse has an influence on the provision of reproductive health services (Jonas et al., 2018).

Although the subcomponents of RAA offers unique insights into the determinants of health behaviours, it is less parsimonious than the Theory of Planned Behaviour as it may not be sufficient to fully explain people's intentions and actions (McEachan et al., 2016). Hagger et al. (2018) also find that the RAA has limitation in considering the effect of past behaviour on current behaviour. In addition to this, the model does not apply to non-Western cultures due to its individualistic nature and the application is not supported with sufficient evidences. Due to this, the RAA has not been considered for this study.

3.3.4 Two suitable models

After discarding various models above, the Theory of Planned Behaviour (TPB) and the Socio-Ecological Model (SEM) were selected as the most suitable to provide an overarching framework for the research. The theory of planned behaviour was employed to get insight into personal motivational factors that influence behaviour (Ajzen & Driver, 1991). The socio-ecological model was utilised to explore social and environmental

determinants that influence mothers' use of healthcare services at different levels (Max et al., 2015).

Using these two theoretical concepts theoretical concepts facilitated the exploration of personal, socio-cultural, environmental, societal, health-service and policy-related factors associated with maternal health service utilisation and to bring these diverse concepts into a proved vital to explain the meaning, nature, experiences, and challenges, as well as to come up with more effective maternal health interventions compared to what could be derived by using a single theory (Prestwich et al., 2015). Knowledge generated through an integrated use of theories thus provides richer understanding from which researchers, government officials, policy makers, and other stakeholders can draw to take action in informed and effective ways (Glanz et al., 2015). The theory of planned behaviour and the socio-ecological model, and their relevance to this study, are discussed in detail the next section.

3.4 Theory of Planned Behaviour (TPB)

3.4.1 Seminal authors and central premises of TPB

The theory of planned behaviour (TPB) was developed by Ajzen (1985). The model was developed as an extension of the earlier theory of reasoned action (TRA), which focuses only on predicting behaviours that are under volitional control. This model was developed further into the theory of planned behaviour to encompass components that were missing from the Theory of Reasoned Action that might be important for predicting behaviours in which volitional control is reduced (Glanz et al., 2015). Ajzen expanded the concepts of the theory of planned behaviour by taking into account an individual's degree of control over the behaviour, as people may have incomplete volitional control over their own behaviour when their actions are subject to interference by internal and external factors (Bagozzi, 1992).

The model postulates that the likelihood of performing a recommended behaviour is determined jointly by the individual's intention and their ability to control their behaviour (Montaño & Kasprzyk, 2008). Intentions are determined based on personal motivational factors that influence a behaviour and they indicate efforts made by the individual to perform the behaviour (Ajzen & Driver, 1991). Behavioural intentions, in the Theory of

Planned Behaviour, are the result of an individual's attitude towards the behaviour, subjective norms associated with the behaviour, and their perceived behavioural control to practice the recommended behaviour (Montaño & Kasprzyk, 2008). Bhattacherjee (2012), further elaborates that intention is predicted by one's conscious, reasoned choice, and is shaped by cognitive thinking, social pressures, and the ability to perform the behaviour. An individuals' performance of a given behaviour is predicted by their intention to perform the behaviour.

The central premise of the theory of planned behaviour is that people make decisions rationally by systematically using accessible information (Ajzen, 1985). This means people's engagement or non-engagement in the recommended behaviours is expressed as a function of their salient information or beliefs that are relevant to the behaviour. Ajzen & Driver (1991), identified three categories of salient beliefs that influence the likelihood of people's involvement in the recommended actions. These are behavioural, normative, and control beliefs; these relate to the individuals' attitude, the influence of others, and their sense of control over their behaviour, respectively. Thus, people's intention to perform a recommended behaviour is predicted by three factors: subjective norms, attitude, and perceived behavioural control.

Figure 3.1, below, applies the constructs of the theory of planned behaviour to the perceptions of mothers regarding the use of maternal health service.

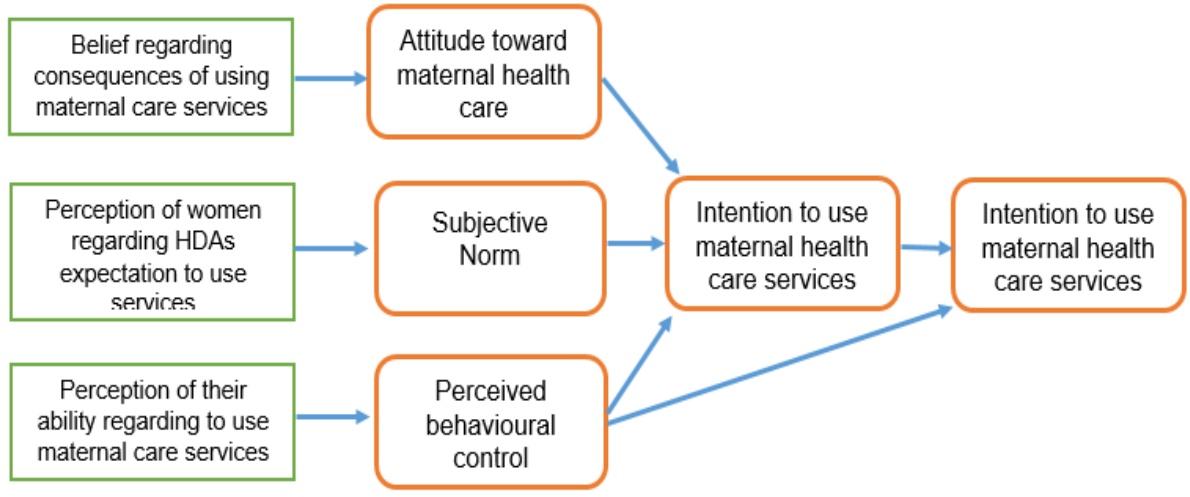

Figure 3.1: Application of the theory of planned behaviour to the perceptions of mothers regarding the use of maternal health service

3.4.2 Attitude towards behaviour

Attitude refers to the individual's beliefs about outcomes or attributes of performing the behaviour under consideration and outcomes of the behaviour (Montaño & Kasprzyk, 2008). The National Cancer Institute (2005), also described attitude as the individual's positive or negative evaluation of performing the behaviour. Attitudes toward behaviour, thus, are shaped by beliefs about what is entailed in performing the behaviour. The theory of planned behaviour is concerned with attitudes toward behaviours, instead of the more conventional attitudes toward objects, people, or organisations (Ajzen, 1985),

Attitude toward a given behaviour, according to the principles of the theory of planned behaviour, is described as the degree to which a person has a favourable or unfavourable evaluation or appraisal of the behaviour in question (Ajzen & Madden, 1986). Individuals evaluate their attitude towards a specific behaviour by considering the outcomes associated with performing the behaviour; in this case, maternal health service utilisation (Ajzen & Driver, 1991; Godin & Kok, 1996).

Similarly, (Ajzen, 2012: 441) also postulates that individual's judgment of their attitude towards a given behaviour is associated with their belief about the consequences of the behaviour, which is measured by the desirability of those consequences (Bhattacherjee, 2012). This evaluation of the outcome leads the individual to develop a positive or negative attitude toward the behaviour, as a result of which they more or less likely perform the recommended behaviour. To this end, the attitude the individual holds toward the behaviour is directly correlated with the behavioural intention of whether to perform the behaviour or not (Ghasemi et al., 2017). This shows that a woman who holds strong beliefs that positively valued outcomes will result from utilising maternal health service will have a positive attitude toward the behaviour and vice versa.

Mothers' attitude towards the care provided in health facilities has a significant effect on their utilisation during pregnancy, childbirth and in the postpartum period. For instance, a study done in three regions in Ethiopia showed that the negative attitude toward maternal health services in various communities influenced mothers' preference for where they would deliver (Ababor et al., 2019: 343). Another study conducted in Ethiopia and Ghana indicated that the negative attitudes held by mothers about health professionals and the quality of care was associated with them preferring traditional birth attendants (Esena & Sappor, 2013; Lera et al., 2017). These attitudes were attributed mainly to the quality of assistance they got at the time of pregnancy and childbirth, and unfriendliness of health professionals in providing care that can respond to their physiological change that comes

as a result of the pregnancy (Machira & Palamuleni, 2018). For this reason, most women prefer the delivery care provided by traditional birth attendants (Adinew & Assefa, 2017). In sub-Saharan African countries, mothers perceive traditional birth attendants as knowledgeable, friendly, trustworthy, respectful of their long-standing religious beliefs and practices, and readily available when needed (Sialubanje et al., 2015).

3.4.3 Subjective norms

A subjective norm refers to an individual's perception of whether people important to them like friends, colleagues, neighbours or family members – expect them to perform the behaviour in question or expect to be criticised by these people if they do not perform the behaviour (Bhattacherjee, 2012). The theory of planned behaviour reflects perceived social subjective norms as an individual's personal perception of the expectations imposed by their social environment to adopt a given behaviour (Godin & Kok, 1996). It indicates the influence of social referents to perform a given behaviour as a result of the social pressure placed on the individual. The social pressure that mothers experience to utilise maternal healthcare services during pregnancy, childbirth and the postpartum period comes from their partners, family members, religious leaders, of the Health Development Army (HDA), health extension workers and other important individuals in their social network (Assefa et al., 2019; Damtew et al., 2018; Ministry of Health of Ethiopia, 2015: 22).

The subjective norms of mothers regarding whether they should utilise maternal health services is determined by what the mothers believe their social referents expect of them; this, in turn, is based on their motivation to comply to the expectations of those referents (Montaño & Kasprzyk, 2008). This indicates that an exploration of the perceptions of mothers' subjective norm regarding use of maternal health services by mothers is essential in order to predict the likelihood that they will want to, or will not want to, access these services. A woman who believes that important others think that she should utilise maternal health services is more motivated to meet these expectations. Conversely, if a woman believes that important others expect her not to utilise maternal health services and motivated to comply with their expectations, she will have a negative subjective norm. But if she is less motivated to comply with those referents, she will have a relatively neutral subjective norm (Montaño & Kasprzyk, 2008). This demonstrates that when mothers assess a behaviour favourably and when they believe that important others think they should perform it, they intend to engage in it (Ajzen, 1985).

Evidence from some studies conducted in Ethiopia has shown that mothers became more motivated to access maternal health services as the social pressure they experienced from their social circle increased (Tekelab et al., 2015; Teklesilasie & Deressa, 2020). Similar findings were also reported from studies done in Iran and Bangladesh (Izadirad et al., 2017; Sarker et al., 2016). The support mothers receive from their social network also has an impact on their health outcome and that of their babies. Various studies have reported that mothers who received more prenatal social support faced fewer problems during labour and were more likely to have babies of higher birth weight (Campos et al., 2010: 7; Elsenbruch et al., 2007: 873; Shah et al., 2014: 4-5). In spite of this, mothers were unable to get support from the social referents because of their perception and beliefs about maternal health services (ibid). For instance, one study found that the decision of mothers to access maternity health services was most strongly influenced by their partners' knowledge, perceptions, and beliefs about maternal healthcare services (Shahabuddin et al., 2017: 8). Thus, the knowledge, beliefs, perceptions, and influence of the people in a woman's social network regarding the utilisation of maternal health services can have a significant impact on their decision to access these services to improve their health outcome.

3.4.4 Perceived behavioural control

Perceived behavioural control is defined by Ajzen & Madden (1986) as "the person's belief as to how easy or difficult performance of the behaviour is likely to be". It refers to the extent to which people believe that they are capable of performing a given behaviour if they intend to do it (Ajzen, 2012). Social psychologists believe that individuals' perception of the difficulty or easiness of performing a behaviour will, to some extent, determine their likelihood of achieving the behavioural target (Ajzen & Madden, 1986: 456; Montaño & Kasprzyk, 2008). The theory of planned behaviour model postulates that individuals' perception of their ability to control their behaviour will affect the choices they make, the effort they invest to perform activities, how long they persevere in the face of difficulties, their vulnerability to stress and depression, and their resiliency after setbacks (Godin & Kok, 1996).

According to the Theory of Planned Behaviour, performing a behaviour is the result of the interaction between intention and perceived behavioural control (Ajzen & Driver, 1991). This interaction permits a significant prediction of behaviour than the attitude and subjective norm constructs predict the outcome behaviour (Ghasemi et al., 2017). In other

words, people's perception of behavioural control will bring the required behaviour change by influencing their intentions indirectly and it can also directly predict the actual behaviour of the individual, as it is based on the premise that an individual's performance of a behavioural achievement is not only based on the motivation they had but is also influenced by their perception of control over the behaviour in question (Ajzen & Madden, 1986).

Ajzen (2012), emphasises that mothers who have a favourable attitude and supportive subjective norm regarding the use of maternal health services will be more likely to use these services if they believe in their capability to use services, whereas mothers who don't believe in their capability to make decisions have lower intention to use the recommended maternal health services. Thus, a woman's perception of the ease or difficulty of utilising healthcare services, directly or together with intention, will determine attainment of the target behaviour.

Wallston (2001), argued that the concept of perceived behavioural control is similar to Bandura's (1995) concept of self-efficacy, because they both refer to the person's perception that the behaviour is under control. However, operationally, perceived behavioural control is frequently measured by how easy or difficult the behaviour is, whereas self-efficacy is operationalised by the person's confidence in their ability to carry out the behaviour in the face of extenuating circumstances (Tavousi et al., 2009). Evidence shows that the pregnant mothers' belief towards utilising maternal health services is affected by their past experience, the information they have received about the service, experiences of friends or acquaintances, and other related factors that increase or reduce their perception of their ability to use these services before, during and after pregnancy. These factors were found to have a significant role in influencing mothers' perception of their ability and, thereby, predicting their intention to use healthcare services (Moshi et al., 2018; Moshi et al., 2020).

Moreover, a study conducted by Cephas Sialubanje et al. (2014), found that the perception of women in her ability to access and use maternal health services was an important factor that influenced their intention to deliver at a healthcare facility rather than at home. As a result of this, the concept of perceived behavioural control in the theory of planned behaviour is viewed as a determinant of the likelihood of individual's intention of practicing the recommended behaviour.

3.4.5 Review of critiques

The concepts associated with the theory of planned behaviour has been applied widely in various studies related to maternal health service utilisation and other health-related behaviours. Although the theory was found useful in some studies, it has criticised for its sufficiency in predicting behavioural intentions and performing of the behaviour (Ajzen & Fishbein, 2005). For instance, Moshi et al. (2020), found that none of the constructs of theory of planned behaviour were correlated with the intention of pregnant women to use a health facility for delivery. Ajzen & Fishbein (2005), proposed that environmental factors such as developmental changes, historical events, past behaviour or prior experience might intervene to alter the individual's attitudes, subjective norms, and perceived behavioural control associated with the behaviour. Since the failure to consider these factors influences the predictive capability of the theory of planned behaviour, researchers have proposed that including variables like individuals' desires and needs, personal and moral norms, past behaviour, and self-identity in the theory might improve its predictive validity.

The theory of planned behaviour has also been criticised for its inability to incorporate contextual factors that determine the process in which intentions may be made or remade in the course of the individual's life: while an individual's beliefs and attitudes are likely to change as they encounter different personal and social circumstances, the model focuses only on processes that influence intentions and behaviours over a short period of time (Morgan & Bachrach, 2011). Ajzen & Fishbein (2005), suggest that emphasis should be given to identify and control the influence of contextual factors on behaviour to ensure that past behaviour loses its ability to predict subsequent behaviour.

Another criticism of the theory of planned behaviour is that it overlooks the affective component of decision-making, and relying on a "rational-actor" approach to behavioural choices (Clark & Janevic, 2014). The affective component is crucial in behavioural interventions as individuals are more likely to change their behaviour when they are motivated and capable of retrieving their beliefs, attitudes, and intentions in an effortful manner (ibid). In response to these criticisms, Ajzen, (2011) argues that emotion and irrationality can be subsumed in the behavioural, normative, and control beliefs components of the theory.

Finally, the theory of planned behaviour has been criticised for targeting only the perceived views of individual and others and failing to consider the material aspects of social contexts, which include public policy as well as economic, educational, cultural, and

organisational conditions (Morgan & Bachrach, 2011). Critics have pointed out that some features of the environment which are outside of the awareness of the individual, nevertheless influence the individual's behaviour (Morgan & Bachrach, 2011).

In the application of the theory of planned behaviour in this study, the limitations of the theory were mitigated by considering various personal, environmental, and other contextual factors as background variables and incorporating the socio-ecological model (which is discussed in Section 3. 4) to enhance the study's capacity to explore behaviour from diverse perspectives.

3.4.6 Relevance of TPB to the maternal health services uptake in Ethiopia

The theory of planned behaviour serves as a relevant basis for a theoretical framework for exploring the reasons for low uptake of maternal health services during and following pregnancy. Despite the enormous importance of the health and well-being of mothers to their entire community and its contribution to achieving targets for global development, a significant number of mothers still do not utilise health services and preventable loss of life due to pregnancy-related health problems continues (WHO, 2019a: 4). Hence, understanding the factors associated with underutilisation of the existing maternal health services is essential in order to develop strategies to enable mothers to utilise these services.

The theory of planned behaviour has been found to be an effective tool for exploring individuals' perceptions about a behaviour and their intention to perform it. The model reveals how intentions are influenced by personal and social factors in individuals' as well as their perception of their capability to perform the behaviour. There is evidence that a mother's intention to utilise services is influenced by their perception of the services, perceived norms related with maternity care and perceived easiness or difficulty of accessing the services offered at healthcare facilities (Ajzen & Driver, 1991). This means women are likely to have an intention to use maternal health services if they have positive attitude towards the service, believe that important others will approve of them using the services and perceive that it is within their power to utilise the services.

A number of studies have found that maternal health service utilisation is influenced by a wide range of personal, social, and environmental factors. The theory of planned behaviour offers conceptual tools that facilitate the exploration of the diverse views of mothers about health services, social approval to use the services and their intention to

use the services, as well as their cultural beliefs and practices, attitudes and skills. The theoretical tools provided by the theory also enable the study to assess the barriers, influencers, and motivators for utilising of healthcare services, as well as the experiences of the community regarding the utilisation of maternal health services. The model thus contributed to the development of an in-depth understanding of the perception of the community about facility-based maternal health services and the lived experiences of pregnant women related to their preference for delivery at home over delivery in modern healthcare services.

3.4.7 Application of TPB to maternal health services uptake in Ethiopia

The theory of planned behaviour provides a useful framework for understanding and explaining the intentions that lead to behaviours as well as the behaviours themselves, identifying intervention targets and designing effective strategies to change socially significant human behaviour (Ajzen, 2012; Glanz et al., 2015). Applying the concepts provided by the theory to research greatly assists in framing the parameters of the study by maintaining the focus of the study, organising the literature review, developing the data collection instrument, presenting and discussing the findings as well as making recommendations to address the issues that have been identified.

The theory of planned behaviour has proven useful to research seeking a better understanding of diverse health-related behaviours, such as exercising, donating blood, adhering to a low-fat diet, using condoms for AIDS prevention, using illegal drugs, and wearing a safety helmet, among many more. In terms of the topic of study in this research, the theory has been applied in various studies attempting to explain maternal health service utilisation behaviour during pregnancy, childbirth and the postpartum period. The model has helped to assess whether mothers have a favourable or unfavourable evaluation of a behaviour (attitude towards the behaviour), perceive social pressure to perform or not perform the behaviour (subjective norm), and perceive themselves as able to perform the behaviour (perceived behavioural control) (Ajzen & Manstead, 2007).

For instance, a study conducted in Zambia that used the theory revealed that attitude, personal moral norm and perceived behavioural control towards maternal healthcare service use had a strong influence on the intention of pregnant women to use maternal healthcare services (Sialubanje et al., 2014). Another study done in Ethiopia indicated that attitude and perceived behavioural control were important predictors of intention to

use an institutional delivery service (Ayana et al., 2021). Similar studies have used the model successfully to determine the intention and behaviour of mothers with regard to using maternal health care services (Lera et al., 2017; Nigussie et al., 2020; Obola et al., 2019; Setegn, 2021).

Since the low uptake of maternal health services by mothers has been a factor in the high rate of maternal deaths in developing countries, including Ethiopia, increasing the uptake of essential maternal health services by mothers is becoming a priority target area for intervention. However, increasing uptake of maternal health services is a challenging issue as utilisation behaviour is complex and is influenced by a number of personal, psychological, and social factors (WHO, 2020b). In order to improve the uptake of maternal health care services, it is thus critical to understand the reasons driving the low uptake of maternal health care by mothers. The theory of planned behaviour offers powerful tools for identifying the psychological and social factors responsible for low uptake of maternal health services.

Using the Theory of Planned Behaviour (TPB) in this research provides a conceptual framework to delve into mothers' perceptions regarding the impact of maternal health services on their use, the influence of social pressures on their intention to utilise such services, and the barriers hindering women's ability to access maternal health services. Studies conducted in Zambia and Ethiopia have shown that TPB constructs, including attitude, social norm, and perceived behavioural control, play a crucial role in determining pregnant women's intention to utilise maternal healthcare services before and during childbirth (Ayana et al., 2021; Lera et al., 2017; Nigussie et al., 2020; Obola et al., 2019; Setegn, 2021; C. Sialubanje et al., 2017).

Although TPB offers a valuable framework for understanding the factors influencing the uptake of maternal health services, it has faced criticism for its limited predictive validity and failure to consider environmental factors as well as its focus solely on processes affecting intentions and behaviours over a short period (Ajzen & Fishbein, 2005; Morgan & Bachrach, 2011). To address these shortcomings, various personal, environmental, and contextual factors are integrated into the socio-ecological model as background variables to broaden our exploration of behaviour from diverse perspectives.

3.5 Socio-Ecological Model (SEM)

3.5.1 Seminal authors and premises

The socio-ecological model (SEM) was first conceived of and developed into theory by the American psychologist Urie Bronfenbrenner in the 1980s to understand the ecology of human development (Bronfenbrenner, 1986, 1977). It is widely used in health promotion programs to simultaneously emphasise the interaction between individual factors and contextual systems and the interrelationship between these factors in effecting a specific health problem. The socio-ecological model is a theory-based framework for understanding, exploring, and addressing the social and environmental determinants that influence individuals' health at different levels, including at the public policy, institutional, community, interpersonal, and individual (Max et al., 2015).

The model is based on the premise that interventions which aimed at addressing maternal health problems should encompass and target a wide range of individual, social and environmental perspectives. Stokols (1996) argues that an individual's engagement in healthy behavioural practices is the cumulative effect of the social, physical, and cultural aspects of an environment. The application of the socio-ecological model thus aids researchers and program developers to shift their focus from individual behaviour towards an understanding of a wide range of environmental, cultural, and other community related factors that influence individual behaviour (Max et al., 2015).

The ecological mode is designed to explore both the behaviour and individual and environmental determinants of the behaviour. The framework emphasises that individual behaviour affects, and is affected by, the social environment and is shaped by multiple levels of influence (National Cancer Institute, 2005). McLeroy et al. (1988), identify five levels of influence that can affect individuals' health behaviour:

a) The policy level: policies and regulations that direct interventions;
b) The organisational level: the way relevant institutions are organised;
c) The community level: community networks which support individuals' decisions and the relationships between institutions within communities;
d) The interpersonal level: the relationship between the individual and others in the family; and
e) The individual level: beliefs, values, educational status, skills and other personal factors.

The theory posits that people's interactions with their physical and sociocultural environments on public policy, organisational, community, interpersonal, and individual levels are key to predicting their health-related behaviours (Sallis et al., 2008: 466). For example, changes in the social environment result in change for individuals; and the individuals support, in turn, is essential for bringing changes in the environment (McLeroy et al., 1988). Similarly, Max et al. (2015) highlighted that the adoption of healthy behaviours is predicted by individuals' knowledge, values, beliefs and attitudes as well as by influences of the social environment, including the people with whom they associate, the organisations to which they belong, and the communities in which they live. Thus, examining each of these factors is essential to understanding and preventing health problems.

A modified Socio-Ecological Model has been proposed to address agricultural safety risks affecting children in rural settings (Lee et al., 2017). This model outlines five interconnected levels of influence policy, institutional, community, interpersonal, and adult that collectively shape safety outcomes. It emphasises that children, who lack autonomy, are embedded within a broader system of structural and relational influences that must be addressed together (Lee et al., 2017).

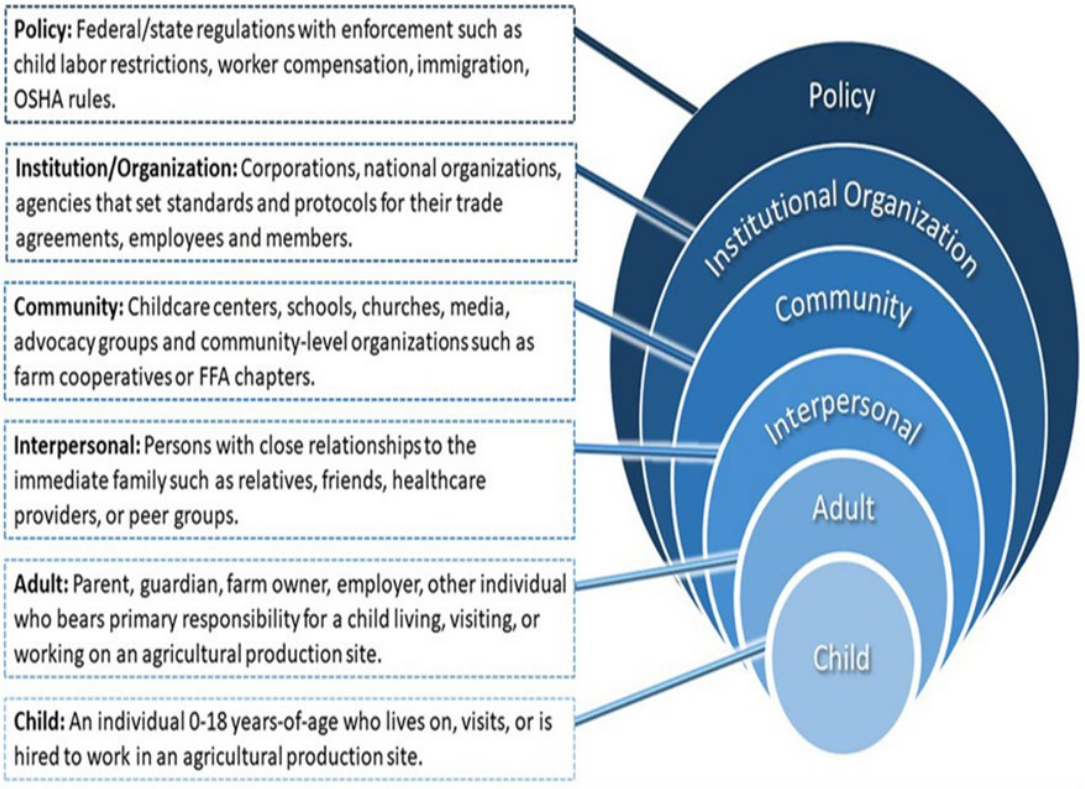

Figure 3.2: The Socio-Ecological Model applied to the health context (Lee et al., 2017)

This model is highly relevant to my study because it demonstrates that health-related behaviours are not solely determined by individual choice but are shaped by systemic and relational forces a concept that is central to understanding maternal health service utilisation in rural Ethiopia. Like children on farms, mothers in remote communities face complex, multilayered barriers that affect their ability to access care. These barriers include infrastructural limitations, dominant cultural norms, and other restrictions on personal agency. The five levels of influence in the socio-ecological model are illustrated in 3. 2 above.

Drawing on this approach, my study applies a similarly adapted Socio-Ecological Model to explore how national policies, healthcare institutions, community norms, interpersonal relationships, and individual factors interact to influence maternal health service uptake. The model proposed in the agricultural context provides a valuable conceptual foundation for addressing complex health challenges in rural Sidama through multilevel, context-sensitive strategies.

3.5.2 Policy level

Public health policy refers to state and federal policies, procedures, and laws that regulate or support healthy actions and practices and disease prevention, control and management (National Cancer Institute, 2005). The World Health Organization (WHO) defined policies as decisions, plans or actions that are undertaken to achieve specific healthcare goals within a society (WHO, 2020c). These policies and laws are implemented at local, national and global levels and make up the broadest level of the socio-ecological model as they have the potential to impact large numbers of people's health behaviour.

McLeroy et al. (1988) note that using regulatory policies, procedures, and laws in public health programs has had a dramatic effect on the health of targeted and vulnerable population. Policies may also affect decisions on distribution and the use of resources through the establishment of valid eligibility criteria and the appropriateness of health promotion interventions by placing restrictions on how programmatic resources may be used.

Policy frameworks designed at the national and global level are used as an essential input to guide the design of interventions aimed at improving maternal health service programs.

Carefully designed strategies are also important to ensure that effective health system are available to meet to the needs of mothers and children (WHO & PMNCH, 2014: 4). The WHO recommends that every woman is provided with equitable access to maternal healthcare services at critical times in her life (Oladapo et al., 2018). These services are expected to be delivered in accordance with a human rights-based approach to improve the health and well-being of the mother and newborn (WHO & PMNCH, 2014: 8).

The national health policy introduced in Ethiopia in 1993 is concerned with improving access to essential healthcare packages and ensuring the availability of quality services to all communities using democratised and decentralised health systems (Transitional Government of Ethiopia, 1993: General Strategy 1& 2). The policy emphasises that special attention should be given to the healthcare needs of women and children by making adequate services available and referring women to healthcare facilities in the case high-risk pregnancies (Transitional Government of Ethiopia, 1993).

To implement the national health policy, a twenty-year strategic plan was prepared with a sequence of five-year health sector development plans (HSDP) to aid the development of strategies (Ministry of Health of Ethiopia, 2011a: 54; 2015: 71). The HSDP gives special attention to improving access to quality maternal, newborn, child and adolescent health services and achieving a dramatic improvement in the rate of health service utilisation and a dramatic decrease in the maternal mortality rate (Central Statistical Agency of Ethiopia & Inner City Fund, 2016; Ethiopian Public Health Institute & Inner City Fund, 2019: 12-14).

In general, the strengthening of health systems through continuous analysis and improvement of health and health-related policies, declarations, rules, guidelines, standards, directives and other health-related legal frameworks should be given priority in areas where the highest maternal morbidity and mortality rates are reported, like Ethiopia. The policy level of the socio-ecological model is important because it impacts a larger portion of the population than the other levels. This study aims to assess policy-related challenges that contribute to decreased utilisation of services in the study area.

3.5.3 Institutional level

An institution is an organisation characterised as having formal (and informal) rules and operation regulations for providing maternal healthcare services. When applying the socio-ecological model to the context of health, the key institutional players are the health facilities that provide the services required for improving the health and well-being of the

individual (McLeroy et al., 1988). The availability and accessibility of health institutions and the quality of care they provide motivate mothers to use maternal health services. It also interacts with factors on the other levels of the socio-ecological model – like personal, community and policy levels. As healthcare is a human right, the WHO calls for the provision of quality care throughout pregnancy, childbirth and the postpartum period to all women in a way that enables all women have equal access to the care they need (Tunçalp et al., 2015).

The way the health system is organised is important in addressing the barriers or challenges that many women encounter when they seek care during pregnancy, childbirth, or emergency situations (Black et al., 2016). In Ethiopia, the healthcare delivery system is structured into a three-tier system with primary, secondary, and tertiary health facilities. These classifications have been made to mitigate delays in seeking care. While maternal health services are available at each level, the primary healthcare facilities including primary hospitals, health centres and health posts – are allocated as the sites where most maternity care services are delivered.

Health organisations are believed to be instrumental in the development of conducive environments for women to exercise their health rights and address the health problems that impact the lives of pregnant women by providing quality maternity care. Since a significant proportion of maternal, foetal and newborn deaths are preventable, it is essential that maternal health services be available that are safe, effective, client-centred, efficient, equitable and of a high quality to help prevent the maternal health problems that occur during pregnancy, childbirth and after the birth of the child (Black et al., 2016). In addition, health facilities play an important role in improving the uptake of maternal health services by disseminating health information that can help women to make knowledge-based decisions during pregnancy, delivery and the postpartum period (Poux, 2017). If mothers understand the importance of these services they will be more likely to seek the skilled care that will reduce the incidence of maternal and neonatal morbidity, mortality and disability (Austin et al., 2014). Berhan & Berhan (2014b), found that an increase in the utilisation of health services brought about a reduction in the maternal morbidity rate. However, the rate of utilisation of these services is still very low, especially in sub-Saharan African countries (Central Statistical Agency of Ethiopia & Inner City Fund, 2016; Mekonnen et al., 2019).

While utilising maternal healthcare services to reduce complications during pregnancy, delivery and postpartum is essential, it is influenced by a range of factors, such as the

awareness of mothers that the service is available (Jalu et al., 2019), fear of having caesarean section during delivery (Mrisho et al., 2009), prior experience of poor quality care and history of complications during last childbirth, accessibility and cleanliness of the health facility (Fisseha et al., 2017b; Kea et al., 2018; Kebede et al., 2016; Negero et al., 2018; Shifraw et al., 2016), lack privacy during their visit to the facility, a history of still birth or abortion, having had a difficult labour in the past, the availability of basic supplies and medicines at the facility (Bhattacharyya et al., 2016; Roy et al., 2017: 141-142), preference for female healthcare providers (Ababor et al., 2019; Sarker et al., 2016), and a history of disrespectful/abusive care (Miller & Lalonde, 2015). These factors may influence the mother to rely the on services provided by traditional birth attendants (Jalu et al., 2019).

According to finding from a qualitative evidence synthesis in low-and middle-income countries, women who think of health workers as well-trained, competent, compassionate and provide quality care were more likely to receive maternal healthcare services, whereas women who experience poor care and lack confidence in the service provider's skill are less inclined to access maternal healthcare services (Bohren et al., 2014). Various studies done in Ethiopia also reported that the lack of privacy during healthcare consultations, lack of compassion and respect in care and lack of skill on the part of providers have been found to influence women to choose home delivery over delivery at a healthcare facility (Adinew & Assefa, 2017; Kasaye et al., 2017; Tekelab et al., 2015). Thus, understanding the challenges and the gaps in the available services is also essential to being able to design and strengthen health systems to respond to the needs of women, so as to protect the wellbeing of mothers and their babies (Sacks & Langlois, 2016).

While the national health policy introduced by the Ethiopian government in 1993 focuses on availing quality primary healthcare services to all segments of the population, there is still a significant difference between the uptake of health services by urban and rural mothers (Asrese & Adamek, 2017; Bobo et al., 2017). Women who live in urban areas have been found to be more likely to utilise services compared to rural residents (G. S. Ayele et al., 2019; Teferra et al., 2012). Similarly, findings from a mini-EDHS report also revealed that women in urban areas were found more likely to utilise health facilities for delivery, antenatal and postpartum care services compared to women in rural areas (Ethiopian Public Health Institute & Inner City Fund, 2019). This difference in the uptake of maternal healthcare services is associated with differences in accessibility of services in these areas, maternal health service seeking behaviour, perception of health facility

delivery, availability/absence of female service providers, and trust in the service (Jalu et al., 2019; Sialubanje et al., 2015; Sanni Yaya et al., 2018).

Research findings from Gondar suggested that the provision of emergency obstetric care within a reasonable distance is crucial to providing essential health information, increasing the utilisation of maternity services and addressing harmful traditional practices (Nigussie et al., 2004). Ensuring accessibility of maternal health services also contributes to addressing different challenges faced by women during pregnancy, delivery, and infant care and is essential for the improvement of health of mothers and children (Al-Ateeq & Al-Rusaiess, 2015). In addition to this, Raven et al. (2012), noted that maternal health services that treat mothers' with respect to their cultural values, beliefs and attitudes is key to achieve improved maternal and neonatal health outcomes. The WHO 2016 ANC model has also recommended that every pregnant woman should receive women-centred care throughout their pregnancy care visits to respond timely to any pregnancy related maternal problems (WHO, 2016a).

3.5.4 Community level

In the ecological model, community level factors refer to the relationships among different organisations, institutions, and informal community networks which influence or support individual and communities to engage in healthy behavioural practices. National Cancer Institute (2005: 11) describe the factors that influence behaviour at the community level as social networks and norms, or standards, which exist formally or informally among individuals, groups, and organisations. The model assumes that conceptualising community's context in sociology and public health has an essential role to determine how the social system influence individuals' health behaviour (Poux, 2017).

The concept of community is expressed in different ways. According to McLeroy et al. (1988: 362-363), community can be thought of as a social group or network to which individuals belong that includes families, informal social networks, religious organisations, voluntary associations, and neighbourhoods; these serve as mediating structures between individuals and organisations within a defined area and influence behaviour. Since these socially constructed structures represent a social identity, they can influence communities' norms and values, individuals' beliefs and attitudes, and mothers' utilisation of health services. In view of this, Downe et al. (2018: 8) argues that strategies aimed at improving the utilisation of maternal healthcare services should not only rely on ensuring

accessibility of maternal health services. Rather, the norms, views, beliefs, and concerns of communities should also be taken into consideration. In developing countries particularly, strategies should engage with the cultural beliefs, norms, and religious views related to maternal and neonatal health (Lawn & Kerber, 2006).

Various scholars have also noted that the characteristic of the community in terms of the proportion of women who are educated, population density, unemployment and poverty rates, media saturation, and socio-cultural norms also impact the utilisation of maternal health services at community level (WHO, 2020a). According to Bronfenbrenner (1977), gender norms and inequities including gendered imbalances in women's access to education impact women's decision-making autonomy and exposure to intimate partner violence, thereby influencing their access to and utilisation of health services. Improvement on women's education status in the community has an influence on their knowledge, attitude and behaviour, and thus has a stronger effect on the uptake of maternal health services (Mezmur et al., 2017: 12). Thus, exploring different community level factors have a significant role in strengthening coordination among community agencies, building coalitions between stakeholders in the community, and improving community awareness about maternal health issues. Ignoring these factors may lead to programmatic failure and a decline in the interest of pregnant mothers in utilising maternal healthcare services.

A synthesis report prepared by United States Agency for International Development & Maternal and Child Survival Program (2017), in Ethiopia indicates that a community's belief system and cultural views had a significant impact on the decision of women to utilise facility-based maternity services; these include believing that only God/Allah can determine the outcome of pregnancy, fear of harm from the 'evil eye' such as miscarriage if they tell anyone outside of the family about their pregnancy, greater trust in traditional rituals associated with pregnancy, childbirth and the early neonatal period, and traditional beliefs that promote the seclusion of mother and newborn in the early postpartum period. Other beliefs and practices that impact women's decision to utilise maternal healthcare services and facilities are mothers' perception of delivery outside home as a sin, and religious beliefs that prohibit delivery by male birth attendants (Kifle et al., 2017; Onta et al., 2014; Sarker et al., 2016); the practice of making the pregnant women smoked by sitting on smoky leaves in fire and spilling butter on her whole body and massage to facilitate spontaneous delivery, and burying placenta near their home to avoid bad luck (Adinew & Assefa, 2017; Ramakrishnan et al., 2012); the desire for access to culturally

acceptable food which is not available to those admitted to healthcare facilities, and the high regard in which traditional birth attendants are held by the community (Adatara et al., 2019; Caulfield et al., 2016; Jackson et al., 2017; Kea et al., 2018). This indicates that socio-cultural factors such as normative beliefs, views and behaviours will influence a mother's decision to seek care (Abel, 2008: 1-4). Hence, overlooking the social perspective in the design of maternal health services may negatively impact the uptake of these services and thus negatively impact the health outcomes and well-being of mothers and infants.

In Ethiopia, a community-based approach has been used to organise women into groups at the local level to increase their participation in maternal health programmes, build community investment in improving maternal and child health, and engage with local beliefs, norms and traditional practices that affect maternal health (Ministry of Health of Ethiopia, 2015). The Health Development Army (HDA) and Pregnant Women Conference (PWC) were established to implement this approach. The Health Extension Programme (HEP) has also been implemented to serve as a link between the community and maternal health services (Ministry of Health of Ethiopia, 2011a, 2015). These strategies are essential to the involvement of the community in the healthcare system.

The HDA is an informal group of neighbourhood women that plays a crucial role in promotion of health service utilisation. It provides continuous support during pregnancy, labour and postpartum care and serves as a link between the community and the health system. The HDA is organised to mobilise women in adjacent households to take ownership of their health (Ministry of Health of Ethiopia, 2015). HDA members actively discuss and learn about health and health related issues and encourage each other to positive health behaviour that will improve their own health and that of their families (Damtew et al., 2018). The HDA works in coordination with Health Extension Workers (HEWs) to identify new pregnancies, counsel mothers to access antenatal care and delivery services at healthcare facilities and refer pregnant and labouring women to these facilities (Kea et al., 2018). These activities have contributed significant to an increased uptake of maternal services (Asresie et al., 2019; Assefa et al., 2019; Balabanova et al., 2017; Banteyerga, 2011).

Furthermore, the HEWs are trained and deployed all over the country to support families. Their role is to work together with the community to provide primary health services, with a specific focus on women and children (Ministry of Health of Ethiopia, 2015). As a result of this, there has been increased uptake of maternal healthcare services and improved

knowledge and care seeking behaviour across Ethiopia (Assefa et al., 2019; Damtew et al., 2018). This, in turn, has contributed to bringing the rate of maternal and neonatal mortality down (Central Statistical Agency of Ethiopia & Inner City Fund, 2016). Strategies to increase uptake of maternal healthcare services should thus consider involving people from women's social networks like religious leaders, teachers, local male and female leaders and the husbands of women in community mobilisation activities.

3.5.5 Interpersonal level

In the socio-ecological model, the interpersonal level refers to social influence from friends and family and norms within social networks (McLeroy et al., 1988). Individuals' interpersonal relationships with significant people such as family, friends, intimate partners and peers may influence their likelihood of engaging in healthy behaviours (WHO, 2020a). The support a mother receives from her social network – including her family, friends, peers and neighbours can play a significant role in her decision to utilise maternal healthcare services. Heaney & Israel (2008: 190) identify four types of social support an individual may receive from their social network; emotional, appraisal, informational or instrumental.

Emotional support involves providing empathetic care; instrumental support refers to giving direct support to someone in need; informational support aims at providing information that can help the person address their needs; and appraisal support involves providing constructive feedback and affirmation (ibid). These supports have been associated with positive health outcomes for pregnant women and newborns (Selcuk & Ong, 2013). The emotional and instrumental support women get from their social network during pregnancy and after giving birth may include help with household chores or prayer that the delivery will go well (Asrese & Adamek, 2017).

Socio-ecological researchers highlight the importance of the interpersonal relationships a pregnant woman has with her family, friends, intimate partners and other significant people in her network in influencing her decision to access maternal health services. The support a mother receives from her social network was found instrumental in enhancing mothers intention to use maternal healthcare service in the facility (Izadirad et al., 2017: 69-70). For instance, in Bangladesh, the tradition of the family, the husbands' knowledge and perception of maternity services, and the influence of the mother-in-law and other family members has been found to impact a pregnant women's decision to seek care

(Shahabuddin et al., 2017). The knowledge, perceptions, and beliefs of the woman's husband about maternal health and services availability were found to play a particularly significant role in the woman's decision to seek care (Shahabuddin et al., 2017: 8). Various studies have found that positive support provided by partners is associated with higher uptake of maternal health services by women (Mohammed et al., 2019; Suandi et al., 2015).

Adequate social support during pregnancy and labour can help to enhance the well-being and health outcomes of both mother and baby. For instance, studies shows that mothers who received more prenatal social support faced fewer problems during labour and their babies had a higher average birth weight and Apgar scores (Campos et al., 2010; Collins et al., 1993: 1250). In one study, babies born to mothers with low perceived social support during pregnancy were significantly smaller (Elsenbruch et al., 2007: 873). Similarly, Shah et al. (2014) highlighted that pregnant women with partner support were less likely to lose the pregnancy, have the baby preterm, or have a baby with low birth weight than those teens without partner support. Despite its importance, most men in Ethiopia fail to provide support to their wives' maternal healthcare as they perceive that pregnancy and childbirth are women's business (Teklesilasie & Deressa, 2020).

Support from partners has been found to often be quite limited in low-and-middle income countries, however (Abdollahpour et al., 2015). Support from mothers-in-law, and other community members, has also been found to have a key impact (Sarker et al., 2016). Study findings from Nepal indicates that mothers-in-law have the authority to decide when and where the pregnant mother should get maternal health services; as they perceive that the service was not beneficial by referring to their own past experiences (Simkhada et al., 2010). While, in a study done in Zambia (Sialubanje et al., 2015) and Ethiopia (Kea et al., 2018) mothers-in-law force pregnant woman to follow the tradition of the previous generations and give birth at home with the help of a traditional birth attendant. Such influences have an impact on women's use of maternal health services.

In contrast to this, a study conducted by Sialubanje et al. (2015) found that women's who have granted the autonomy to make decisions within the household were more likely to utilise maternal health services. Various studies also evidenced that women who have the autonomy to make decisions on their health issues have been found to be more likely to access the continuum of care services available; including prenatal care, skilled birth attendance and postpartum care (Ameyaw et al., 2016; Ghose et al., 2017; Hou & Ma, 2012; Sebayang et al., 2019; Tiruneh et al., 2017). However, very few women have

autonomy to make decisions to use health services (Alemayehu & Meskele, 2017; Tiruneh et al., 2017).

3.5.6 Individual-level influence

The individual or intrapersonal level of influence in Bronfenbrenner's socio-ecological model refers to the individual characteristics that influence adoption of healthy behavioural practice (National Cancer Institute, 2005). Personal characteristics of the individual, such as knowledge, attitudes, beliefs, and biological factors influence how individuals behave and increase their likelihood of engaging in a healthy behaviour (WHO, 2020a). Poux (2017), notes that personal attributes like age, education level and economic status determine an individual's capability to access healthcare services. An understanding of these personal characteristics and their impact on health-related behaviour is thus essential in order to design maternal health programmes that address the needs and concerns of mothers.

Factors at the level of the individual that have been found to have a key influence on the uptake and utilisation of skilled maternal healthcare services include maternal age, education, and the woman's occupation (Mezmur et al., 2017). Various studies have found that the uptake of services by a pregnant woman is strongly influenced by personal characteristics like her age, educational status, and occupation (Ali et al., 2018: 43-44;Roy et al., 2017:140-143; Tekelab et al., 2019: 6-16). Similar cross-sectional studies also have reported a correlation between the uptake of maternal healthcare and maternal age and educational status (Asefa et al., 2013; Asseffa et al., 2016; Dulla et al., 2017; Dutamo et al., 2015; Tiruaynet & Muchie, 2019; Tsegay et al., 2013). For instance, in one study, educated and younger women were found to be more likely to utilise antenatal care services and give birth at health institutions rather than at home, compared to their counterparts (Basha, 2019; Dickson et al., 2016; Shiekh & Kwaak, 2015; Tekelab et al., 2015). Another study found that women with a low level of education and a low economic status were less likely to use a continuum of maternal healthcare services provided by a skilled healthcare provider than their counterparts, and also preferred to have a home delivery with a traditional birth attendant rather than to deliver at a healthcare facility (Kazanga et al., 2019; Sarker et al., 2016).

The mother's knowledge about maternal health problems and the maternal health care services available to alleviate the problem is also another important factor that determines

utilisation. The health education and counselling provided to women during pregnancy, delivery and postpartum period is key to improving the awareness of the mother and thereby contributes to an increased use of the continuum of maternity care services. For instance, one study found that mothers who did not receive health education and were unaware of signs of danger in pregnancy were less likely to utilise the available maternal health services (Roy et al., 2017; Sarker et al., 2016; Shifraw et al., 2016).

Studies in Ethiopia have also found that a large number of women are unaware of signs of danger in pregnancy and childbirth and are less motivated to use health institutions compared to those who are aware of pregnancy and childbirth related danger signs(Asefa et al., 2019; G. S. Ayele et al., 2019; Kelebore et al., 2016; Wako & Kassa, 2017). In another study, mothers with improved awareness of pregnancy and delivery complications were more likely to utilise antenatal care and facility-based delivery services (Asrese & Adamek, 2017; Gebretsadik et al., 2019). In another study, mothers who knew about the danger signs in pregnancy were two times more likely to choose to deliver at a healthcare facility rather than at home (Asefa et al., 2019), were seven times more likely to use antenatal services and were three times more likely to utilise postpartum care services than women who did not know about pregnancy danger signs (Dutamo et al., 2015). Hence, a woman's poor awareness about pregnancy danger signs influenced them to view pregnancy as a normal and healthy physical state and thereby impacted their motivation to seek skilled healthcare services (Finlayson & Downe, 2013).

Another important factor on the intrapersonal level that impacts the decision of pregnant women to use maternal healthcare services or not is the perception that the woman has of the services. For instance, studies have found that mothers who have a negative perception of the quality of the available maternal health services, the efficiency of health professionals, the appropriateness of services and the readiness of facilities to respond to maternity-related complications were less likely to use facility-based maternity services (Central Statistical Agency of Ethiopia & Inner City Fund, 2012; Fisseha et al., 2017b; Oyugi et al., 2018). Women who consider pregnancy as a normal physical state were found to have less awareness of the risk of experiencing serious complications during pregnancy and saw little reason to consult healthcare providers during their pregnancy (Finlayson & Downe, 2013). For instance, a study by Berhe & Nigusie (2015), found that mothers with a low awareness of the risk of severe complications in pregnancy were more likely to choose a home delivery than their counterparts who had a high awareness of these risks. Mothers who did not trust the services provided at health facilities were less

interested in accessing these services (S. Yaya et al., 2018). This indicates that the perception mothers of the maternal care that is available plays a significant role in their uptake of antenatal care, delivery, and postpartum care services. For example, women prefer not to go to a health facility for delivery when they perceive healthcare providers are very unfriendly and do not take good care of them during pregnancy (Machira & Palamuleni, 2018). Furthermore, mothers' misperceptions of the care provided in healthcare facilities and fear of medical interventions have influenced them against delivery at a healthcare facility (Ababor et al., 2019). This reveals that an understanding of the socio-demographic and socio-economic contexts is important to be able to design interventions which are effective in increasing their uptake of maternal healthcare services (Teferra et al., 2012).

3.5.7 Review of critiques

Although the socio-ecological model is highly effective for facilitating a detailed exploration of the context across policy, environmental, organisational, community, intrapersonal, and personal levels, it has been criticised for its limited power to explain the behavioural outcome and adequacy of scope of conceptualisation (Partelow, 2018). The model was also found to be inadequate in identifying specific variables and explaining how broad levels of influence interact across different levels to change behaviour (Salmon et al., 2020). Sallis et al. (2008), argue that the model lacks specificity in determining the influence of different constructs of socio-ecological model on health behaviour. This is because of the difficulty of the model in measuring all components of the model empirically as the categories of psychosocial, technological and contextual factors overlap with one another (Alemu et al., 2017). To address this limitation, combining the concept of socio-ecological model with other behaviour change theories was recognised as an effective method to identify the most important influential factors above all others (Callahan-Myrick, 2014).

3.5.8 Relevance of the Socio-Ecological Model to maternal health research in Ethiopia

In general, ecological models are important as they provide comprehensive frameworks for understanding the multiple and interacting determinants of health behaviours and aid the design of comprehensive intervention strategies that can systematically improve

health service utilisation at different levels of influence. Application of the socio-ecological model can be instrumental in changing individuals' health-related behaviour, as their behaviour is both shaped by and shapes across multiple levels, ranging from broad policy and community contexts to personal beliefs and social relationships(Glanz & Bishop, 2010). This multilevel focus broadens options for researchers to develop a comprehensive understanding of the multiple and interacting determinants of health-related behaviour.

The multilevel approach offered by the socio-ecological model supports the design of effective and sustained health promotion, disease prevention programs, policies and strategies (Harper et al., 2018). This can be best achieved by integrating ecological frameworks with other theories and models. Thus, the use of social theories – particularly socio-ecological models is important to understand how social, cultural and other community-related factors shape the practices and perceptions of mothers and the general population in ways that impact on their uptake of healthcare services and the outcomes of that care (McCourt, 2014).

Since challenges associated with maternal health problems are too complex to be adequately understood from a single levels of analysis, a comprehensive approach must be employed by integrating psychologic, organisational, cultural, community, and regulatory perspectives (Stokols, 1996).

In Ethiopia, the uptake of healthcare services by mothers is greatly influenced by sociocultural, perceived benefits and accessibility-related factors (Duga & Teshite, 2015: 194). In order to improve health and well-being, promote development, and achieve global health targets, interventions must thus address the social determinants that influence health including social, economic, political, cultural, and environmental determinants. Hence, strategies aimed at improving the health outcomes of women and children require a proper understanding of the different factors contributing to the low uptake of healthcare services by women and children. The socio-ecological model makes an important contribution to assessing these factors as it is designed to engage with multiple factors at different levels.

3.5.9 Application of Socio-Ecological Model to maternal health research in Ethiopia

The complex relationship that exists between an individual and their environment is key to the adoption of healthy behaviours, and investigating the factors at these levels provides

a comprehensive approach to increasing health-care access through interventions across multiple levels, is recognised in the socio-ecological model as developed by Bronfenbrenner (1977), and elaborated by others (McLeroy et al. 1988, Lee et al. 2017, Kilanowski 2017, Harper et al. 2018). Researchers would benefit from understanding how interventions at different levels of the model might interact to yield greater access to quality health care and improve utilisation of maternal health services. Thus, understanding the influences of these different level factors on health-related behaviour is essential.

Utilisation of the different levels of the socio-ecological model framework can guide the exploration to understand the multiple influences that impact pregnant mothers' use of antenatal, delivery and postpartum care services. The socio-ecological model framework has been applied in different types of research including qualitative, quantitative, mixed-method, meta-analysis, and comparative studies (de Vos et al., 2019; Partelow, 2018). The model has been applied in different studies to identify a wide range of personal and environmental factors affecting health-seeking behaviour and the uptake of maternal health services across all levels. For instance, the application of the socio-ecological model in a study done in Malawi revealed that women face barriers to accessing sexual and reproductive health services across the five levels specified in the model (Chimphamba Gombachika et al., 2012). Similarly, policy, institutional, community, interpersonal, and individual factors were identified as barriers to the utilisation of maternal and child health services among internally displaced mothers in Somalia (Mohamed et al., 2021).

A systematic scoping review found that the socio-ecological model was effective in determining that the utilisation of maternal health services by adolescent girls was influenced by multiple factors at the systemic, institutional, interpersonal, and individual (Mekonnen et al., 2019). A qualitative study done in the Netherlands also confirms that the lifestyle behaviour of women of childbearing age is influenced by multiple socio-ecological levels (Timmermans et al., 2020). Besides this, researchers have applied the socio-ecological model to address intrapersonal, interpersonal, institutional, and community-level barriers and challenges related to interventions in randomised controlled trials (Salihu et al., 2015).

Applying the socio-ecological model was also found successful to understand that social environment is an important determinant of use of antenatal and mother to child HIV transmission preventive services among women in Kenya (Onono et al., 2015). Studies conducted in Nepal, South Africa, Madagascar, and Nigeria reported that multiple-level

factors influenced the use of maternal health care services (Igras et al., 2019; Ngwenya et al., 2020; Nyaaba et al., 2021; Sharma et al., 2021).

Various studies have indicated that factors at policy, institutional, community, interpersonal, and individual levels as originally framed by McLeroy et al. (1988), have a collective influence in improving the health and well-being mothers (Igras et al., 2019; Jebena et al., 2022; Ngwenya et al., 2020; Sharma et al., 2021). This study considers all five dimensions of the socio-ecological model to understand the reasons associated with the uptake of maternal healthcare services by mothers. The use of the socio-ecological model framework helps to shape the parameters of the research process and enables an inclusive exploration of the perspectives within the community in relation to maternal healthcare service utilisation.

The Socio-Ecological Model (SEM) approach is essential to this study for several reasons. Firstly, it provides a comprehensive framework for understanding the various determinants of health behaviours, as highlighted by (Glanz & Bishop, 2010; Harper et al., 2018). as well as (Glanz & Bishop, 2010; Harper et al., 2018). Specifically, this study aims to investigate the factors influencing the uptake of health services from the perspectives and lived experiences of community members.

In operationalising these theoretical approaches for our study, the SEM proves crucial in understanding the issue from diverse perspectives, particularly in achieving the objectives of identifying health care service-related factors and exploring the impact of socio-cultural beliefs on maternal health service uptake. However, it is important to acknowledge that while the SEM addresses the research objectives, it has limitations. One criticism is its limited ability to interrogate perception or conceptualisation, and its behavioural outcomes (Partelow, 2018). Furthermore, the model lacks specificity in determining the influence of different SEM constructs on health behaviour (Sallis et al. (2008); & Salmon et al. (2020). The latter limitation stems from challenges in measuring psychosocial, technological, and contextual factors within the model (Alemu et al., 2017). Despite these limitations, the SEM remains a valuable tool for our study in understanding the complex interplay of factors influencing maternal health service utilisation.

3.6 Theory and research methodology

According to Bordens & Abbott (2011), theories play a key role in informing research methods that are aimed at understanding behavioural factors related to the utilisation of

healthcare services by mothers and determining how these factors influence the health outcome of the mother. Moreover, sound theoretical frameworks have an important role in guiding the researcher to organise and interpret the findings of a study. In view of this, Whitehead (2007), views theory, research and practice as an interlinked concepts; theory-based research is valuable to provide a focused assessment of a problem with an aim to improving practice. A theoretical framework is a structure that helps to support the research.

The research methodology serves as a blueprint or roadmap that helps the researcher to design the study process (Lapan et al., 2012). DiClemente et al. (2002), note that theories play a significant role in guiding the study by providing an abstract conceptual framework within which the research question and sub-questions can be framed. The theories selected to guide a specific study will determine the variables that need to be included and examined and may even state how they are to be measured (Bordens & Abbott, 2011). Within a specific study, the researcher draws conclusions from the data with the aid of sound theoretical underpinnings.

Flick (2010, 2014), emphasises that theories are instrumental in conceptualising an empirical investigation of participants' experiences, actions, and interactions and guides the coding of data during analysis. Evidence shows that maternal health is influenced by factors on multiple levels. The theory of planned behaviour and the socio-ecological model were selected for this study based on their appropriateness to guide the research process, their ease of application, and their power to explain the phenomenon under investigation. These theories were helpful to bring diverse concepts into a unified conceptualisation. They provided a basis for the exploration of policy-related, health services-related, environmental, social and cultural as well as personal factors associated with the utilisation of maternal health services.

Furthermore, theories provide the conceptual foundations to guide the design and implementation of well-articulated health promotion programs based on the findings and recommendations of research (Glanz et al., 2015). An effective theory was essential to help explain the meaning, nature, experiences, and challenges associated with maternal health effectively so that researchers, officials or policy makers can use this knowledge to make informed and effective decisions.

3.7 Conclusion

This chapter has provided a detailed overview of the theoretical underpinnings and frameworks used in this study. A brief description was provided of the two theoretical frameworks the theory of planned behaviour and the socio-ecological model – which are employed in the study to form a scaffolding or underlying structure for the study. The chapter also discusses the importance of theories in explaining and predicting health service utilisation behaviour, presenting evidence from prior studies. In addition, the application and relevance of the two theoretical frameworks to the study under investigation was also briefly discussed.

It is clear that the uptake of health services by mothers is influenced by a range of factors. In developing countries, in particular, factors at policy, institutional, organisational, environmental, social, and personal levels may play a role in uptake. The use of relevant theoretical approaches can enable the researcher to explore different aspects of the phenomenon under investigation. Theories are thus instrumental in understanding the big picture in relation to maternal health service utilisation behaviour, rather than investigating just a single factor. Applying the theory of planned behaviour and the socio-ecological model in this study allowed for the exploration of a wide range of individual, environmental, cultural, and other factors in the community that influence mothers' utilisation of maternal healthcare services.

CHAPTER FOUR: RESEARCH METHODOLOGY FOR UNCOVERING COMMUNITY PERSPECTIVES OF MATERNAL HEALTH SERVICES IN THE SIDAMA REGION OF ETHIOPIA

4.1 Introduction

This chapter outlines the rationale behind choosing a qualitative approach for this study, focusing on its alignment with the research question on community perspectives of maternal health services, and the need for in-depth exploration of the factors influencing maternal healthcare service utilisation. A research methodology is a systematic approach that shapes the methods and procedures employed in the research process for describing, explaining and predicting the research problem under investigation (Kothari, 2004; Rajasekar et al., 2013). It can be seen as a blueprint or roadmap that guides researchers as they try to identify the most appropriate way to collect the required data and ensure that their study can be critiqued, repeated, and applied to other contexts (Lapan et al., 2012; Rehman & Alharthi, 2016). This chapter provides a detailed justification and description of the research paradigm and argument, as well as the methodologies and techniques, applied in this study. It explains the study design, study population, sampling methods, research tools, data collection procedures, and data analysis techniques employed to answer the research question. This section also outlines the ethical considerations relevant to the study and procedures undertaken to ensure reliability of the data, and summarises experiences encountered throughout the course of field work.

Social science researchers often employ an exploratory approach in their studies to gain new insights into the underlying causes of a phenomenon or more fully understand the issue under investigation (Babbie, 2010; Polit & Beck, 2009). An exploratory qualitative research approach is the preferred approach when little is known about a specific phenomenon, or when deeper exploration is needed (Salazar et al., 2015). Thus, exploratory inquiry was used to better understand mothers' perspectives in relation to utilising health services during pregnancy, childbirth and after delivery.

4. 2 Study Setting

The study setting was selected with an aim to understand the experiences, values, assumptions and expectations of people in specific area in relation to the services provided in public health facilities in Ethiopia, by focusing mainly at the community level (Savin-Baden & Major, 2010). On this basis, Sidama Region in Ethiopia was selected as a natural setting where the researcher could engage in field work to explore mothers' perceptions, assumptions and experiences with regard to using healthcare services.

The Sidama region is one of the fourteen regions of Ethiopia. Formerly, Sidama was part of the Southern Nations, Nationalities, and Peoples' Region (SNNPR), which comprised of thirteen zones, Sidama being among them.

The Southern Nations, Nationalities and Peoples' Region (SNNPR) was one of the administrative regions of Ethiopia that was officially constituted in 1995, following the implementation of the Federal Democratic Republic of Ethiopia (FDRE) Constitution, which reorganised the country into ethnically-based regional states (Federal Democratic Republic of Ethiopia, 1995). The region is located in the south of Ethiopia, with Hawassa (then Awasa) as its capital (Federal Democratic Republic of Ethiopia, 2020). Several smaller ethnic zones were combined into the SNNPR, making it one of the most culturally diverse regions in the country (Central statistical agency, 2014).

In 2020, the Sidama region gained autonomy from the larger SNNPR. After a zone-wide referendum, the Sidama Zone was officially made the Sidama National Regional State on 18 June 2020, becoming the tenth regional state in Ethiopia, with an area of 6,538 km². Following repeated demands for self-administration from various ethnic groups, the remaining area of the SNNPR underwent a further administrative shakeup in 2023, and was also replaced by two smaller regions, that of South and Central Ethiopia, respectively (Ministry of Peace, 2023).

Sidama Region is located in southern Ethiopia between the geographic coordinates of 6°14' and 7°18' north and 37°92' and 39°14' east. The region is bordered on the south by Oromia Region and the Gedeo Zone, on the west by the Bilate River, which separates it from Wolayita Zone, and on the north and east by the Oromia Region. The altitude ranges from 1,200 meters to 3,211 meters, which shows that the region is characterised by three agro-ecological zones: the highland areas with altitudes above 2,000 meters (32%), midland areas with altitudes ranging from 1,500 meters to 2,000 meters (48%) and the lowland areas at altitudes below 1,500 meters (20%) (Sidama Region Health Bureau,

2021). Agriculture is the major livelihood of the inhabitants of the Sidama Region, where coffee is the biggest agricultural product in the region. Coffee is the primary source of income for rural households in a substantial part of the region. Sidama Region is the leading coffee-producing region in Ethiopia; its exports worldwide contribute significantly to the country's Gross Domestic Product (Ethiopian Government portal, 2021).

Figure 4. 1: Topographical map of Sidama Regional State (Jfblanc, 2020)

The region is divided administratively into thirty districts, with six town administrations and one city administration. Population projections made by the Central Statistical Agency (2013) placed the population of Sidama at around 4. 5 million inhabitants in 2021. According to the findings of the last national population and housing census held in 2007, 94. 2% of the population speaks Sidaamu-Afoo as their mother tongue (Central Statistical Agency of Ethiopia, 2007).

The health system structure of the study setting, in line with the Ethiopian healthcare system, is a three-tier system (Ministry of Health of Ethiopia, 2015). At the bottom layer, there is a primary healthcare system that comprises health posts, health centres and primary hospitals. General hospitals comprise the secondary healthcare level and referral or teaching hospitals are situated at the tertiary level.

According to the 2020/2021 annual report of the (Sidama Region Health Bureau, 2021). The Region had 18 hospitals (one at the tertiary level, four at the secondary level and fourteen at the primary level), 137 health centres (133 operated by the government, one serving the police and one run by an NGO), 553 health posts, and two clinics run by NGOs. In addition, about 108 private health facilities were providing healthcare services to the community as of June 2021. These health facilities were estimated to provide maternal healthcare services to approximately 1,041,282 women of child-bearing, with about 154,628 pregnancies seen each year. Regional data shows that the primary health coverage has reached 78. 7% for health centres and 63. 3% for health posts (Sidama Region Health Bureau, 2021). In addition to these services, the Health Extension Workers (HEWs) and Community Health Promoters (CHPs) play a significant role in disseminating health education across the rural communities (Gebretsadik et al., 2019). In addition to these services, the Health Extension Workers (HEWs) and Community Health Promoters (CHPs) play a significant role in disseminating health education across the rural communities (Gebretsadik et al., 2019).

Sidama Region was selected for two reasons. First, a number of studies, including the 2019 Ethiopian mini demographic health survey, had found that the uptake of maternal healthcare services by women in Sidama was low (Ethiopian Public Health Institute & Inner City Fund, 2019; Gebretsadik et al., 2019; Kea et al., 2018; Tadele et al., 2015). Second, the investigator had been working at different levels of the healthcare system in the region, which provided the opportunity to observe the problem and discuss it with healthcare providers and health program managers working at the primary level of the healthcare system, and triggered a deep interest in the factors impacting the wellbeing of local women.

The Sidama Region of Ethiopia presents a compelling focal point for maternal health service research due to its distinct challenges and significant implications for maternal and infant well-being. Despite government initiatives to bolster accessibility and utilisation of maternal health services, the region lags behind national targets, as evidenced by research (Birhanu et al., 2022). Notably, findings consistently indicate alarmingly low uptake rates for antenatal care (ANC), facility-based deliveries, and postnatal care (PNC) services among mothers in the Sidama Region (Gebretsadik et al., 2019; Kare et al., 2021; Shudura et al., 2020; Yoseph et al., 2021).

Furthermore, research (Gebretsadik et al., 2019; Kare et al., 2021; Tadele et al., 2015; Yoseph et al., 2021) underscores the persistence of low maternal health service utilisation

across various locales within the region despite recent interventions. This trend exacerbates the risk of maternal and infant mortality, as elucidated by Regassa (2012) and Kea et al (2023). Home deliveries remain prevalent, especially in rural areas, indicating entrenched challenges in promoting facility-based care (Negussie & Girma, 2017).

Existing research predominantly adopts quantitative methodologies, overlooking nuanced perspectives and experiences of mothers utilising maternity services or resorting to home births. Consequently, a research gap persists in comprehensively understanding the multifaceted determinants of maternal health service utilisation in the Sidama Region. To address this gap, this study prioritised women's perceptions and experiences regarding maternal health services, encompassing cultural beliefs, health system factors, and barriers to uptake.

Given the imperative to encompass diverse perspectives, this study employed purposive sampling across districts with varying performance levels in maternal health service utilisation. This approach ensured a holistic understanding, incorporating insights from mothers, community stakeholders, healthcare providers, and program managers at different levels of the healthcare system.

In summary, the complex landscape of maternal health challenges in Sidama Region provided fertile ground for conducting research aimed at a nuanced, multi-dimensional understanding of decision-making processes regarding maternal health services.

4.2 Selection of a qualitative research approach

Research methods fall broadly into quantitative and qualitative approaches. These approaches differ in terms of their basic philosophical assumptions, the type of research strategies used in the research, the specific methods employed, the questions used to collect data, and the kind of data that is produced (Creswell, 2014). When considering which methods are appropriate for a specific study Salazar et al. (2015: 13), advise considering the parsimony, which implies that specific research question can best be addressed by the selected research design. Babbie (2010: 92), states it is important to consider the purposes the different methods serve, such as exploration, description, and explanation.

Creswell (2014), stresses that these two broad categories should not be viewed as a distinct, rigid, or discrete; rather, they represent two ends of a continuum. Social science research that focusses on understanding aspects of human behaviour is often best served with qualitative methods, but quantitative methods may also be employed to identify commonalities.

The decision to employ a qualitative research approach for this study was informed by the dominance of quantitative studies in the research field as mentioned in Chapter 2, and the need to delve deeply into the perspectives of mothers regarding the utilisation of healthcare services during pregnancy, childbirth, and postpartum. Qualitative research, as emphasised by Astalin (2013: 118), involves a systematic inquiry aimed at building a holistic understanding of social or cultural phenomena. Qualitative research is characterised by its holistic and narrative-driven inquiry into social or cultural phenomena Astalin (2013: 118). Thus, it offers flexibility and emergent approaches that align with the complexities of human experiences, making it well-suited for investigating the nuanced factors influencing maternal healthcare behaviour. According to Astalin (2013: 118), qualitative research is described as “a systematic scientific inquiry which seeks to build a holistic, largely narrative, description to inform the researcher’s understanding of a social or cultural phenomenon. ” Qualitative research methods allowed novel approaches for understanding the diverse views of participants regarding the utilisation of healthcare services during pregnancy, delivery and immediately after delivery to be employed (Olson et al., 2016). Qualitative data collection instruments, including interviews, focus group discussions and observations based on questions, were employed to illicit participants’ insights and experiences related to the research objective (Flick, 2010).

Creswell (2014: 3), states that a qualitative research approach is essential to obtain an in-depth understanding of the interpretations or meaning people ascribe to a social or human problem. Similarly, Ritchie & Lewis (2003: 3) describe the qualitative approach as a naturalistic, interpretative approach that can be used to understand the meanings people attach to a specific phenomenon, for example, actions, decisions, beliefs, values. Qualitative research makes it possible to explore the opinions, attitudes and social experiences of participants at a level of depth that is not possible in quantitative research (Dawson, 2006; Mays & Pope, 2020). With this consideration, qualitative research focuses primarily on seeking answers to questions about the ‘what’, ‘how’ or ‘why’ of a specific phenomenon (Green & Thorogood, 2004). In doing this, qualitative studies use an emergent approach to make decisions about the data collection as they go (Polit & Beck,

2009). This allows novel or emerging ideas to be included in the study. Qualitative studies can also be used to elaborate on, or lend insight into, other study findings (Green & Thorogood, 2004). They also facilitate holistic, comprehensive descriptions of systems, theories, and processes, as well as the identification of factors and working hypotheses that warrant further research (Jason & Glenwick, 2016).

Sociological researchers use qualitative research as an umbrella term to provide detailed descriptions of people's lived experiences and the cultural views of a community regarding the issue under investigation (Marvasti, 2004). Different research studies emphasise different aspects of qualitative research methodology. Bogdan & Biklen (2007: 3-8), describe five basic features of qualitative research:

a) It is naturalistic, in that data is collected from actual settings and the researcher serves as a research instrument,
b) Descriptive data is obtained from interview transcripts, field notes, personal memos and other official records,
c) It is concerned with process rather than simply focusing on outcomes,
d) The collected data is analysed inductively, and
e) It is concerned with accurately interpreting participants' perspectives.

A qualitative research approach was chosen for this study by considering the nature of the research problem being investigated, the researchers' personal experiences, and the study participants. It was viable and appropriate to employ qualitative research methods to obtains answers to the research question posed in this study, as it aims to unveil participants' perceptions about life and how they engage these conceptions in their daily lives, in their social environment, and in their interaction with others. In this study, qualitative research approaches assisted with exploring and describing the experiences and perspectives of mothers regarding their uptake of health services. In addition to these reasons, a qualitative approach was preferred because of the flexibility it affords in the research design; its capacity to facilitate studying social phenomena in their natural context; the volume and richness of qualitative data that can be generated; the distinctive approaches to analysis and interpretation that are afforded; and the types of outputs that can be generated from qualitative research (Green & Brown, 2005; Ritchie & Lewis, 2003).

The research approach employed in this study essentially focuses on two key aspects of the research process: data collection and data analysis. Among the different types of qualitative data-collection techniques available, focus group discussions (FGD) and in-depth interviews (IDI) were selected. The study used focus group discussions and in-depth

interviews with key informants, including healthcare providers and program managers at district, zonal and regional levels, Health Extension Workers (HEWs), Health Development Army (HDA) members, Traditional Birth Attendants (TBAs), and mothers who had recently given birth at healthcare facilities or at home, to produce qualitative data. Individual interviews were selected to generate rich data regarding the perspectives of women and the community on the viability of maternal healthcare services (Green & Brown, 2005). These data collection techniques were selected as they enable investigation into the 'what', 'how' or 'why' of the phenomenon under investigation, rather than questions about 'how many' or 'how much' (Green & Thorogood, 2004).

An inductive approach to data analysis was used in this study. An inductive approach is commonly used for analysing qualitative data, as it aids the identification of clear links between the objectives of the research and the results generated from the raw data (Chetty, 2016). This approach was chosen to aid the understanding of the phenomenon under study.

4.3 Advantageous researcher positionality

Having spent more than sixteen years as a public health official within regional government in Ethiopia, the low uptake of maternal health services has featured as a factor in maternal and child health on an ongoing basis. Professionally, I currently work at the Sidama Regional Health Bureau. I have a professional background in public health research, complemented by two master's degrees, the first in Sociology (Indira Gandhi Open University, 2013), and the second in Public Health (University of Rift Valley, 2020). I have served in various managerial positions within the regional Health Bureau of the Southern Nations, Nationalities and Peoples' Region (SNNPR), and subsequently, upon the dissolution of the SNNPR in 2023, in the Sidama region, for the past 12 years. From 2013 to 2020, I worked as researcher and Head of the Research Department. In this role, I conducted and published several studies related to maternal health services, and specifically, the low uptake of contraception, whether oral or long-term.

Simultaneously, I served as chairperson of the regional Research Ethics Committee. In that role, I reviewed many proposals related to other aspects of maternal and child health. This sensitised me to the challenges associated with the low regional uptake of maternal health care. This experience, combined with my work on regional health reports, has strengthened my commitment to understanding the various dimensions of maternal health

service utilisation, and to contribute to this understanding in a systematic and scientific manner.

My work in the health bureaus of the Southern Nations, Nationalities, and People's Region (SNNP) and the Sidama Region gave me ample opportunity to observe the low uptake of maternal health services by mothers. This motivated me to investigate and explore the prevailing assumptions, social and cultural issues related to maternal health that may impact the decision of mothers to utilise maternal healthcare services.

My positionality, as someone familiar with the local politics of health institutions, community traditions, local languages and norms of social interaction, has enabled me to carry out the study as an involved researcher. This familiarity with local conditions provided me with the opportunity to engage with community leaders, health workers and health managers with relevance to the study, and facilitated my access and ability to conduct additional interviews or observations if it will benefit the data set. This advantage was also noted by Dwyer & Buckle (2009), who found that researchers' membership in the group or area being studied can make an important contribution in qualitative research data collection and analysis. In addition, it is also helps to ensure the credibility of the research within the participant community, facilitates a natural flow in interactions with participants; and helps to establish a level of intimacy with participants which promotes both the telling and the judging of truth (Bonner & Tolhurst, 2002; Unluer, 2012).

The four broad advantages or value adds of an insider researcher are summarised as follows by Labaree (2002): the value of shared experiences; the value of greater access; the value of cultural interpretation; and the value of deeper understanding. Being a researcher and a member of the communities researched helped me to share context, background and a set of values; it reduced potential culture shock and enabled access to participants and information that might not be accessible to. Therefore, as a researcher who knows how the actual institutional politics works and understands the socio-cultural interactions, it is easier to discover hidden meanings related to the issue under investigation which may take an outsider much longer to access.

Along with the many advantages of being an insider researcher, there are also concurrent challenges, such as a potential loss of objectivity when the researcher is an insider to the target population (Unluer, 2012). To minimise the influence of prior assumptions on the research process and findings, as recommended by Bonner & Tolhurst (2002), I have maintained a commitment to reflexivity, care with my actions and communication, and

critical examination of my prior assumptions, throughout the exercises of data collection and analysis. Certain checks and balances can also be instrumental in ensuring the credibility and integrity of the research (Savvides et al., 2014). In this regard, the research instruments, i. e. different interview guides for each group of participants or key informants, helped me to remain focused on the study purpose. Moreover, actual data collection was carried out by experienced data collectors, which also helps to minimise possible bias. Throughout the data collection process my role was limited to observing and supervising the process.

4.4 Data collection methods

Qualitative data collection method refers to an open-ended process and technique used for gathering information related to the research topic (Bowling, 2009; Silverman & Marvasti, 2008). It is concerned with exploring and gaining holistic, rich insights from participants' perspectives on a research problem (Berg, 2001). Mostly, qualitative methods of data collection involves a face-to-face interaction between the researcher and the study participant to allow exploration of emergent ideas (Mack et al., 2005). These methods needs to be flexible to get rich descriptions on the study phenomena and enable analysis of emerging ideas (Barrett & Twycross, 2018).

The data collection methods were selected based on the type of data sought, the subject area, and the nature of the study group (Ritchie & Lewis, 2003). For this reason, the current study used participant observation, IDI and FGD (Holloway, 2005). These methods are useful to understand and explain mothers' perceptions, thoughts, feelings and lived experiences in utilising maternal health services in health facilities and in their home.

In this case, multiple sources of data were triangulated to verify data as well as to enhance understanding of the maternal health service utilisation in the study area (Lyons & Doueck, 2010). Saunders et al. (2009), argue that triangulating different data collection techniques within one study is key "to ensure that the data are telling you what you think they are telling you". Triangulating evidence enables the researcher to explore a broader range of views, identify and handle corroborating or conflicting ideas gathered from different sources, and, therefore, it is considered as an important way of strengthening the credibility of a study findings (Lincoln & Guba, 2013; Yin, 2016). Questionnaires were developed for both in-depth interviews and focus groups.

4.4.1 Data collection instruments

In social science research, a formal written document is often the instrument used to collect data. In a qualitative study, an interview guideline is often used as the primary instrument for collecting data, whether from an individual interview of a focus group (Fitzpatrick, 2018). An interview guide consists of a lists of topics that the researcher intends to cover in the interview, along with initial questions for each topic and probing questions that may be used to follow up initial responses and obtain more detailed data from participants (Liamputtong, 2019; Saunders et al., 2009). The researcher uses the guideline with the objective of eliciting detailed information from participants regarding their perspective about the phenomenon under study (McGrath et al., 2019).

The interview guideline should be designed to motivate participants to share their views and experiences and to explore the meaning participants assign to the phenomena (Seidman, 2006). It should be designed with careful consideration of research objectives and questions and be informed by the reviewed literature and theoretical framework of the study (Adams, 2015). To this end, in this study the interview guide used informal, non-judgmental, open-ended questions. Using open-ended questions allowed participants to share their views, experiences and thoughts freely in their own words (DeCarlo, 2018). In addition to this, using open-ended questions was also instrumental in exploring meaningful, explanatory, and culturally-salient responses given by the participant that were not unanticipated by the researcher (Mack et al., 2005). Three kinds of open-ended questions were used in this study: main questions, follow-up questions, and probes (Tolley et al., 2016: 104). The interview guide included questions regarding the attitudes, experiences, and challenges faced by pregnant women in accessing maternal health services.

In qualitative studies, the researcher is seen as a key research instrument as they adjust their use of the interview guide based on the responses of participants (Adams, 2015). For this purpose, the interview guide is continually reassessed – particularly during the early stages of interviewing to reduce, expand, or re-organise the questions, so that they will be more effective in the subsequent interviews (Adams, 2015; Lune & Berg, 2016). This assessment allows the researcher to identify areas for improvement early in the interview process and avoids the repetition of problems over many interviews. This gives the researcher a great deal of freedom to streamline their investigation. In this study, a semi-structured interview guideline was used as the primary tool for individual interviews and focus groups.

In contexts where multiple languages are spoken, such as the Sidama Region, translation of the interview guide is crucial to ensure effective communication with participants. This necessitates meticulous translation processes, including translation into the local language and back, for the sake of consistency, as noted by (DeCarlo, 2018; Mack et al., 2005).

In this study, I first prepared the interview guideline in English and then translated it into Sidamu-Afoo, in which I am fluent. Although it is my second language, it is the everyday working language in my work region. My own translation was then checked by a professional editor. It was then translated back into English by a language professional, to allow me to check for consistency and discrepancy or loss of meaning in translation. This approach was implemented each time that the interview guide was adapted.

The final interview guides are included in Annexures C to H, in English. The final, interview guides in English and translated into Sidamu-Afoo have been stored securely together with the interview transcripts and other research data. These are available on request. This practice aligns with the recommendations of qualitative research methodologies and ensures accessibility of the research materials for future scholars and possible replication of the study.

4.4.2 In-depth interviews

Interview is a process in which a researcher and participant interact with each other on questions related to a research study to get a meaningful data (DeMarrais & Lapan, 2004: 54). The researcher asks different questions to deeply investigate participant's attitudes, behaviours and experiences and the true meanings people interpret the world around them (Merriam & Tisdell, 2015: 108). IDIs are the primary means of data collection in qualitative studies. Holloway (2005: 39) described qualitative in-depth interview as a two-way process where researcher and participant engage in a dialogue to explore individuals 'insider perspective' on the study topic.

The purpose of qualitative interview is to explore interviewees interpretation of meanings or unique information related to the research question (Kothari, 2004: 110; Stake, 2010: 95). The interview needs to be flexible, interactive, uses a range of probing mechanism to fully explore the issue under investigation in its natural form (Ritchie & Lewis, 2003: 141-142). This involves the use of open-ended questions to allow participants to explain their views and experiences in their own words. Which requires asking questions in a neutral

way and followed by probes to explore issues of relevance to your research question, so that the researcher can get detailed information from the participants on the research topic (Nathan et al., 2019: 402). Such considerations in qualitative interview provides an opportunities for mutual understanding, reflection, and explanation about lived experiences and viewpoints from the participants' perspective (Tracy, 2019: 156).

Interview techniques can vary based on the method used in the research, as structured, semi-structured, or unstructured interviews. Of these, semi-structured interviews were equated with qualitative interviewing because of its potential in producing knowledge. Especially exploratory qualitative researches mostly employ the semi-structured interview technique to dig out more in-depth information on participants' perceptions, feelings and experiences (Bowling, 2009: 408; Kothari, 2004: 98). This technique differs from other techniques in two ways. First, the relationship between the researcher and the participant is not strictly scripted. Second, the qualitative researcher does not try to adopt any uniform behaviour or demeanour for every interview (Yin, 2016: 141-142). Qualitative researchers view semi-structured interview as a more conversational and interactive approach that can encourage participant to reflect on their experiences from the viewpoint of being a mother (Mays & Pope, 2020: 45).

Semi-structured interviews usually involve the use of an interview guide to facilitate the conduct of interviews. The interview guideline contains interview questions that move from general to specific, and become more focused as themes and concepts emerge from prior interviews (Fitzpatrick, 2018: 625). These questions are open-ended, unambiguous, and meaningful to successfully engage the interviewee in the discussion. This enabled the researcher to ensure the quality of the interview session and, hence, the quality of the collected data (Holloway, 2005: 45). The questions or discussion topics of the interview guide were prepared in advance and used by interviewer in a flexible and responsive way, so that participants had plenty of scope to express their views without rigidly following the order of the questions (Nathan et al., 2019: 402).

In this study, in-depth interview were conducted with HEWs, TBAs, a health centre delivery case team leader, and a number of woreda, which are zonal and regional maternal health program coordinators. The interviews were used to obtain information about their opinions regarding maternal health. The participants were identified on the basis of being in a position to give credible information regarding maternal health issues and the research question. Healthcare providers with rich experience working with the community were selected to provide in-depth information relating to the study questions. In addition,

selected mothers who gave birth at their home and in a health facility to explore their views and experiences in using maternal healthcare services.

4.4.3 Focus group discussion

A focus group discussion (FGD) is a qualitative research data collection technique in which a selected group of people discuss a given topic or issue in depth. Bader & Rossi (2002: 2), define a focus group discussion as a special type of group interview that is designed to collect information on a specific issue using a small group participant interaction. This method allows the researcher to take advantage of group dynamics to produce rich information and insights that would be less accessible without the interaction that happens in a group (Tolley et al., 2016). The spontaneous exchange of ideas between group members helps to elicit detailed information and generate ideas or solutions to a problem (Bassett, 2004; Bowling, 2009).

In qualitative inquiries, focus groups can make a significant contribution by eliciting diversified views with depth. The discussion among group members not only allows participants to express their views, it also encourages them to debate, or build on, the responses of other group members, to examine different perspectives within the social network, and to investigate common experiences practiced in the community (Holloway, 2005; Ritchie & Lewis, 2003; Silverman 2004). In the context of this study, focus groups were chosen for their usefulness in exploring socially constructed views and cultural practices related to the care of pregnant and lactating women (Laher & Kramer, 2019: 253-254).

It is recommended that a focus group discussion be facilitated by two members of the research – a trained moderator and a note taker (Mack et al., 2005) Mack et al., 2005). The discussion is facilitated using a set of guiding questions (Polit & Beck, 2012). The moderator's role is to manage the group dynamics by actively listening to participants' views, encouraging participation, managing the time and keeping the discussion focused on the guide questions so as to maximise the credibility and usefulness of the outcomes (Roller & Lavrakas, 2015). The note taker facilitates the informed consent process with participants, takes field notes and records salient information that takes place during discussion (De Chesnay, 2015). It is recommended that the focus group discussion be given about one and half hours and is conducted in a safe, comfortable, and quiet place to ensure the confidentiality of what is said (Holloway, 2005).

A focus group discussion offers the researcher an opportunity to observe and document the views, opinions, experiences, and attitudes of participants simultaneously and efficiently (Barrett & Twycross, 2018; Berg, 2001). In this study, each focus group included eight to ten participants. Keeping the group size to a manageable number of participants allows a researcher to keep the discussion focused while exploring a diverse range of views, opinions, norms and socially shared information (Roller & Lavrakas, 2015). Keeping the number of participants small also allows all group participants the opportunity to express themselves, which positively impacts the quality of the data generated (Tong & Craig, 2019).

Participants are selected for a focus group based on having similar characteristics with regard to the research topic. In each focus groups, participants are included by considering their homogeneity in terms of sex and membership in social groups, such as being a member of Health Development Army (HDA) or participating on pregnant women conference. Selecting focus group participants on the basis of their similarity facilitates participants freely expressing ideas or sharing difficult experiences, as they are likely to experience a sense of shared interest (Given, 2008; Grove et al., 2013). Gill et al. (2008), argues that similarity among focus group participants is important to establish a natural interaction or conversation during discussion and, thus, understand how people view a particular topic in talking to each other. In this study, separate focus groups were held with mothers who take part on monthly pregnant women conference and with members of the HDA to explore their views on the utilisation of maternal healthcare services.

4.5 Research population and sampling approach

A research population encompasses all the possible cases of the research interest within a particular research project from which information is to be gathered (Gray et al., 2007). Lapan et al. (2012) also describe the research population as the group of people who are the focus of the study question and analysis. Since qualitative research strives to explore and present data from a variety of sources of evidence, it includes a wide range of research participants to explore the issue under investigation from diverse perspectives. A research population is chosen on the basis of its relation to the study topic, the purpose of conducting the research, and the expected contribution to the study (Gray et al., 2007; Lapan et al., 2012). The research population chosen for this study was comprised of the following groups:

a) Mothers who had given birth within the last two years (both in health facility and at home);
b) Partners/husbands, members of the Health Development Army (HAD) and Traditional Birth Attendants (TBAs), who facilitate or influence the uptake of health services; and
c) Health Extension Workers (HEWs), healthcare providers and program coordinators, as the service providers.

Qualitative sampling techniques were used to identify relevant informants or participants. Qualitative sampling is a purposeful and data driven technique that is useful to describe and explain events within a smaller group of people (Fitzpatrick, 2018; Leavy, 2017).

Purposive sampling refers to the technique of identifying participants in a deliberate manner based on some pre-established selection criteria (Salazar et al., 2015). The researcher purposely selects those participants who will yield the most relevant and rich data for the particular topic (Bowling, 2009). This is a strategic approach to seeking out participants with information to best address the research purpose and questions (Leavy, 2017). In this study, members of the population were seleted for participation in the study based on their proximity to and relevant experience of maternal health services. A diverse group of participants was selected, including mothers who had prior experience using health services, mothers who did not, traditional birth attendants, Health Extension Workers, healthcare providers from maternity wards at health centres and regional maternal and child health program coordinators. Focus group interview participants were also selected purposively to include members of the Health Development Army, mothers who had utilised services, mothers who had not done so, and the husbands or partners of recent mothers.

The key principles for recruiting participants for individual and group interviews were suitability and adequacy (Bassett, 2004). Suitability is concerned with selecting participants who have relevant knowledge and experience to respond to the overarching research question appropriately; whereas adequacy refers to generating sufficient and relevant data from a sufficient number of participants to explore each aspect of the study in detail. Thus, selection of suitable study participants is key to ensure that rich, quality data is generated on every aspect of the broad research question. This can be done by using appropriate sampling techniques (Bhattacherjee, 2012). In this study, non-probability sampling techniques, specifically, purposeful and snowball sampling techniques, were used to recruit study participants.

Snowball or participant-driven sampling is used to identify and recruit participants who are hard to identify directly (Bhattacherjee, 2012). First, a few participants are identified that meet the inclusion criteria. Upon conducting interviews, they are then asked to contact others they know who meet the eligibility criteria and who might be willing to participate in the study (Holloway, 2005; Salazar et al., 2015). The snowball sampling technique was used in this study to identify traditional birth attendants and women who had given birth at home to examine their views about maternal health services. These women would have been difficult to identify in any other way. Snowball sampling technique thus uses the existing community social networks of participants to facilitate the recruitment process.

During data collection, I first approached the Sidama Regional Health Bureau's maternal and child health department and communicated with the head of department in order to gather administrative data on overall maternal health service utilisation.

Boricha district (or woreda), was chosen as the site for assessing community perspectives. A woreda or district is the level at which local government operates in Ethiopia. Boricha district was identified as the lowest performing district in terms of maternal health uptake out of the thirty-five districts within Sidama region at the time when fieldwork was conducted in 2021. Specifically, I selected the Sadamo Dikecha locality (kebele) in Yirba town, within the Boricha district.

To facilitate data collection, I obtained ethical clearance from UNISA and received support from the Sidama Public Health Institute's research department. With their assistance, I informed the Woreda Health Office and visited the health center, health post, and community in Sadamo Dikecha locality.

At the health post, I communicated with the Health Extension Worker, who provided initial information and guided me to conduct in-depth interviews with mothers who had given birth at health facilities within the past year. Upon completing these interviews, I returned to the health post and approached the Health Development Army leader for information about home births within the community. Starting with one mother who had given birth at home, each interviewee referred me to another, leveraging their community knowledge. Using the snowball sampling technique, I began with the first mother and subsequently interviewed four additional mothers. After these interviews, I approached the last mother who had assisted in a home birth.

Following these interviews with mothers, I shifted to interviewing traditional birth attendants. Starting with the first traditional birth attendant identified during the home birth

interviews, I used the same snowball sampling technique to interview the second and third traditional birth attendants. During my interview with the third traditional birth attendant, she mentioned two additional traditional birth attendants, allowing me to complete interviews with a total of five traditional birth attendants using this method.

After concluding these interviews, I returned to the health post and conducted further interviews with the Health Extension Worker. Subsequently, I informed her of my plan to conduct in-depth interviews with women, Health Development Army members and men from the community. The use of purposive sampling was well-suited to my established connections and understanding of local networks, which enabled effective recruitment and ensured the collection of detailed and meaningful data at health facilities and from mothers who gave birth at health facilities. I aimed to interview six to eight group members for each category. The Health Extension Worker agreed to coordinate these groups and scheduled an appointment for me to return in two weeks.

During this interval, I conducted interviews with the health center's delivery case team coordinator and the regional health bureau's maternal and child health coordinator. Finally, based on appointments scheduled with the Health Extension Workers, I conducted focus group discussions (FGDs) with women, members of the Health Development Army, and men from the community.

The selection process aimed to facilitate effective research interviews and focus group discussions, ensuring clear communication of objectives, creating a comfortable environment, encouraging open dialogue, and employing active listening techniques throughout the data collection process from January 4 to February 23, 2021.

These sampling techniques facilitated the recruitment of a sample of study participants. An accurate description of demographic information is important in qualitative studies to provide more personalised information about who the data was collected from, including the number, diversity, and backgrounds of those included in the study (Salkind, 2010). The demographic data of the study participants were presented by using codes and pseudonyms to ensure confidentiality.

4.6 Sample of research participants

Exploratory qualitative interviews – both in-depth and focus group interviews – usually rely on small sample sizes (Wood & Ross-Kerr, 2011). This enabled the generation of specific,

detailed insights regarding the views of mothers about using maternal healthcare services (Mays & Pope, 2020). For qualitative in-depth interviews, there is no strict rule to determine the size of the sample required for a study; rather, it depends on the depth of information obtained from participants in response to the questions (Pope & Mays, 2006). The sample is usually determined by considering the diversity of cases or experiences and the depth of information gathered. It was planned that each interview would be transcribed immediately after it was finished, so that each transcription could be analysed and new or emerging ideas could be included for possible exploration in subsequent interviews, as recommended by (Salazar et al., 2015). The sample size of the in-depth interview participants was decided based on the similarity of ideas or themes raised by interviewees as well as by the similarity of stories, issues or views emerging from the field (Bowling, 2009).

Likewise, focus groups are also expected to include a representative sample of the study participants to explore a range of views or experiences. Most studies identify age, class or ethnicity as important variables when assigning people to discussion groups. However, considering other variables relevant to the study is also important (Holloway, 2005). For instance, in this study mothers who had experience using maternal healthcare services and mothers who did not have prior experience were separately considered to participate in the study. In principle, at least two focus groups were recommended for each defining variables groups, but the number varies as the study progresses and it's preferable to expand the sample size based on emerging data (Tolley et al., 2016).

A qualitative researcher then focuses on organising key information and clarifying the perspectives of different study participants, and exploring the variations that exist within thematic categories. This step is a crucial stage in the analysis process as it shapes the way the story of the participants is distilled, summarised, and told in a manner that is both respectful to the participants and meaningful to readers (Sutton & Austin, 2015). This study included 21 participants who were selected based on their suitability to provide data on their views and experiences relevant to the study phenomena. A diverse group of participants was selected from among mothers who had experience giving birth at their home and health facilities, their male partners, Health Development Army members, Health Extension Workers, Traditional Birth Attendants, health centre Maternal and Child Healthcare case team coordinator, and regional maternal health program coordinators. Table 4. 1 provides a breakdown of study participants.

Table 4. 1: Number of in-depth interview and focus group participants in the study

Data collection methods	Background characteristics of study participants	Number of participants
In-depth interviews (21)	Mothers	10
	Traditional birth attendants	5
	Health Extension Workers	2
	Healthcare providers	2
	Maternal health program coordinators	2
Focus Group participants (21)	Male partners	8
	Members of the Health Development Army	7
	Female participants	6

Only mothers between the ages of 15 and 49 were considered for inclusion in the study, as these are considered reproductive years (WHO, 2006). Regarding the age distribution of the ten mothers who participated in the study, of the 30 mothers who participated, most were between the ages of 35 and 50 years, followed by almost half in the 25- to 34-year-old category, and the remaining were 18 to 24 years of age.

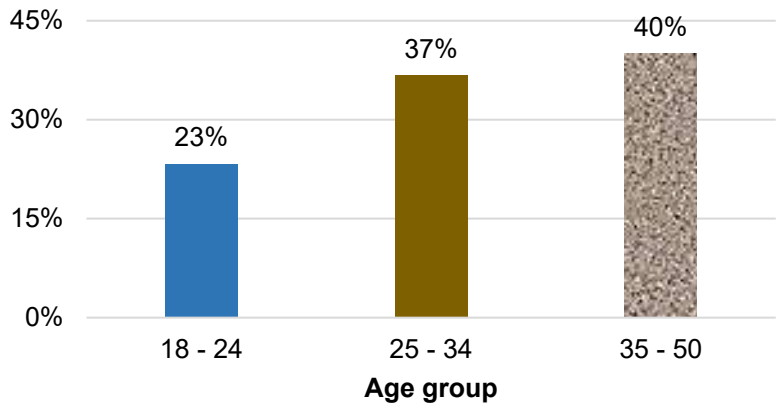

Figure 4.1: Age of participants

Demographic data relevant for the specific purposes of the research was also collected from participants. The relevant characteristics included in this study were participants' age, sex, number of children the women gave birth, education, occupation, residence, and socio-economic status of the family. The inclusion of these demographic variables in the

study was important to clearly represent the characteristics of the study participants and also to help to validate the study findings. In addition, this information was found to be critical to understanding how the participants' characteristics influenced the data collection process and interpretation of the study findings (Marvasti, 2004).

The demographics of study participants are shown in Table 4.2 with pseudonyms assigned to each participant in in-depth interviews conducted during January 2021.

During interviews, participants did not feel comfortable or able to mention their exact age. The participants in this study often did not have documentary evidence of their exact date of birth, but referred to specific historical events in order to provide an estimate of their age. To address this issue, they were asked to indicate their age as categorised within a range.

Table 4. 2: Demographics of participants in in-depth interviews

Participant pseudonym	Age	Gender	Education	Occupation
Amuuwa	35 – 50	F	Primary	Trader
Sallanu	35 – 50	F	Primary	Housewife
Beeko	18 – 24	F	Secondary+	Government employee
Faayyo	25 – 34	F	Primary	Farmer
Leengitu	25 – 34	F	Primary	Housewife
Arfaaso	25 – 34	F	Primary	Trader
Doorite	18 – 24	F	Primary	Farmer
Qawaaxo	18 – 24	F	Primary	Housewife
Qarooyye	25 – 34	F	None	Farmer
Leellitu	18 – 24	F	Primary	Housewife
Dukkani	35 – 50	F	Primary	Housewife
Danchile	35 – 50	F	Primary	Housewife
Daraaro	35 – 50	F	None	Housewife
Dangiite	35 – 50	F	Secondary+	Government employee
Dunguure	35 – 50	F	None	Housewife
Miirtu	25 – 34	F	Secondary+	Government employee
Baxise	25 – 34	F	Secondary+	Government employee
Luulakko	35 – 50	M	Secondary+	Government employee

Due to male dominance in African culture, women may feel uncomfortable when speaking with men about maternal health issues (Tolley et al., 2016). To facilitate free expression of thoughts and experiences, men and women participants were purposefully grouped in separate focus groups. This also gave insight into socially constructed views, or gender-based constraints related to the care provided to pregnant, labouring and lactating women (Nyumba et al., 2018).

Table 4.3 below shows the demographics of the participants in focus group discussions held during February 2021, which consisted of seven members of the Health Development Army, six mothers and eight male partners. While the level of vocal participation by participants in the discussions in focus groups varied, the use of sampling techniques to select participants with common interests helped to create an environment that encouraged the passive participants to participate more actively.

Table 4. 3: Demographics of focus group participants

Participant pseudonym	Age	Gender	Education	Occupation
Amuuwa	25 – 34	F	Secondary+	Housewife
Sidaam	25 – 34	F	Primary	Housewife
Daga	25 – 34	F	Primary	Housewife
Duukamo	35 – 50	F	Secondary+	Housewife
Daabbaro	25 – 34	F	Secondary+	Housewife
Kaaymo	35 – 50	F	Primary	Housewife
Baallicha	25 – 34	F	None	Housewife
Duguna	35 – 50	F	None	Housewife
Diingamo	18 – 24	F	Secondary+	Housewife
Koyyo	18 – 24	F	Primary	Farmer
Woraawo	35 – 50	F	Primary	Farmer
Irrana	35 – 50	F	Primary	Farmer
Hamiso	18 – 24	F	Primary	Government employee
Hanchacha	25 – 34	M	Primary	Farmer
Hayyeesso	18 – 24	M	Secondary+	Farmer
Hasamo	18 – 24	M	Secondary+	Farmer
Maatticha	25 – 34	M	Secondary+	Farmer
Bonja	25 – 34	M	Secondary+	Farmer
Ledamo	25 – 34	M	Secondary+	Farmer
Leegamo	18 – 24	M	Secondary+	Trader
Tiro	35 – 50	M	Primary	Farmer

The detailed employment condition of participants is illustrated in Figure 4. 3, below.

Figure 4.3: Employment status of participants

In terms of the employment status of participants, the majority were not engaged in income-generating activities and identified themselves as housewives, while the rest reported that they were engaged in agriculture and small-scale trades.

4.7 Pilot study

Qualitative researchers consider pilot studies as an important strategy to ensure validity of the research process in accurately representing participants' realities (Creswell & Miller, 2000). This is because of its contribution to help the research team to test interview and focus group guides in a group of trial participants similar to the participants in the actual study (Tolley et al., 2016). In collecting qualitative data, it is important to consider questions that are well-suited to appropriately translate the research question and sub-questions into objectives, and to produce data of a high quality (Lune & Berg, 2016).

A pilot study is “a smaller version of a proposed or planned study that is conducted to refine feasibility of the anticipated research methodology for a larger study”. This process allowed the researcher to ensure that the research design, fieldwork procedures, data collection instruments, or analysis plans were appropriate to carry out the research.

In view of this, a pilot study was conducted and refined to test the suitability of the study process prior to implementation. Two IDI and a FGD were conducted with selected participants, to acquaint the data collectors and supervisors with the instrument and the data collection process, to identify areas of research that requires reformulation, and to examine whether the questions were intelligible, reliable and valid in measuring the study variables (Bhattacherjee, 2012: 23; Given, 2008: 624-625). Moreover, the pilot study

finding enabled the researcher to refine and develop the tool in a way that lets study participants respond to the questions without any problem and, thereby, in obtaining quality data (Fitzpatrick, 2018; Saunders et al., 2009).

A pilot study is also important for gaining experience in interacting with the participants and determine the average duration required to collect data (Fitzpatrick, 2018). For instance, the pilot study is used to test the sample recruitment strategy employed in the study process and map the field to locate possible research participants for the later study on the basis of convenience, access, and geographic proximity (Given, 2008). It is conducted in a safe, protected, and private environment devoid of disruptions where the participants felt more comfortable and relaxed to assess the feasibility of the proposed research process to their cultural and local political contexts (Kim, 2011).

Prior to conducting the actual study, pilot study was collected from a small number of participants to check the appropriateness of the interview questions in answering the research question, determine the reliability and validity of research methods, the number of data collectors needed, possible ethical issues that need to be considered, the time required to conduct interviews and adopt proper research procedures (Bordens & Abbott, 2011). The collected data was also coded by two research team members independently as a trial coding (Flick, 2014). The researcher evaluated the trial coding to ensure the feasibility of coding structure and modified the coding to use it during the main analysis. This process is important to assure validity of the data-driven codes in adequately describing the context and the concepts of the research question.

4.8 Data collection

Fitzpatrick (2018), defined data collection as the process of collecting pieces of information needed to address a research question. It is conducted with the objective of gathering a comprehensive record of participants' words and actions (Willig, 2013). Qualitative data collection allows to explore ideas, experiences and the underlying values, concepts and norms in depth. Data collection can be carried out by using a formal instrument and a rigorously designed data collection procedure (Yin, 2016). In this process, participants were asked a very broad questions, and encouraged to take the lead in the conversation and to explain or narrate their views (Ritchie & Lewis, 2003).

Qualitative data collection includes collecting information from the sampled study participants through semi-structured interviews and observations, documents, and visual

materials; as well as establishing the protocol for recording information (Creswell & Creswell, 2018). This shows that primary and secondary sources can be used to gather qualitative data. Accordingly, primary data was gathered directly from the selected study participants through interviewing, focus group discussion, observation, and researchers field notes, which are organised into textual form to make it ready for analysis (Berg, 2001), whereas, secondary sources of information were obtained from archival or documentary sources like government reports, guidelines and policy documents. This section outlines the qualitative data collection activities carried out in the study process, including the methods, pilot study, tools, and the specific procedures employed.

When conducting qualitative interviews, the data collection process should be designed in a way that enables the researcher to explore what participants say in as much detail as possible and uncover new information with regard to the research problem and guiding questions (Goodyear et al., 2014). In this study, the interview guideline was piloted with selected participants before the proper data collection process commenced. This helped the researcher to ensure that the guideline was clear, understandable and effective in eliciting data that would answer the research question.

In preparation for data collection, the researcher recruited six experienced research assistants, comprising two reproductive health professionals, two social science professionals, and two public health professionals, to supervise each team. These individuals were selected based on their previous experience in qualitative data collection, educational background, and fluency in the local majority language, Sidaamu-Afoo, since interviews would be conducted in this language.

I provided refresher training on qualitative data collection to the selected data collectors, focusing on improving their skills in conducting Key Informant Interviews (KII) and Focus Group Discussions (FGD). The training also aimed to familiarise them with the research question, objectives, and respective interview guides.

The data collectors familiarised themselves with the interview guidelines to ensure that the data collection process appeared as natural and consistent as possible. Additionally, the researcher provided training on the study's aims, interview guidelines, and the approach to conducting KII and moderating FGD sessions. Expectations regarding interactions with study participants were also outlined to ensure comprehensive and representative data collection.

Subsequently, the collected data was first transcribed and then translated on a daily basis by the data collectors, comprising note-takers and moderators, to prevent mismanagement of the extensive dataset. As the candidate and principal researcher, my responsibilities included providing training, overseeing the data collection process, and ensuring the accuracy and consistency of transcribed and translated interviews, particularly in Sidamu-Afoo. This involved cross-checking the transcribed interviews with audio recordings to verify consistency.

In addition to this, a detailed manual was prepared to provide guidance to the different data collectors to standardise the data collection procedures (Lyons & Doueck, 2010). The manual lays out specific step-by-step instructions to encourage all members of research team to follow a consistent approach to data collection. This helps to minimise variation among different data collectors, address bias that can occur during the interview on the part of the interviewer or participant, and increase the reliability of the data gathered (Saunders et al., 2009).

Before the data collection process commenced, a letter was obtained from Sidama Region Health Bureau expressing support for the study. The research team then approached purposively selected study participants and introduced themselves by presenting the letter of support. The study was explained in detail and it was explained to participants that ethical principles, including anonymity and confidentiality, would be used in the study. The purpose of conducting this informed consent process was to gain participants' trust and willingness to participate of their free will in the study as well as increase the likelihood that they would share their experiences honestly. After this explanation, each prospective participant was invited to participate in the study and written informed consent was obtained from each participant.

The semi-structured interview guideline was used to guide the interviews. A tape recorder was used to capture all the information.

Data collection should ideally be carried out somewhere that is free from distractions, safe and convenient (Gill et al., 2008). In this study, interviews with mothers and other community members were conducted during face-to-face visits in their homes. Interviews with government workers and other experts were conducted at their place of work. Focus groups were carried out at locations in the community that were safe and suitable for engaging in discussion. The researcher positioned herself in a place that was convenient

to observe and take field notes on the non-verbal interaction between participants. In all cases, interviews were conducted in the local, majority language of Sidamu-Afoo.

Furthermore, the interviewers were sensitive to the social context of the interviewee, such as the ways in which they express their language, words and opinions. This helps to ensure collection of information-rich qualitative data. Similarly, social differences between interviewer and interviewee were taken into consideration during each interview. Participants for focus groups were selected based on their membership or participation in Health Development Army (HDA) and pregnant women conference. During each interviewer and focus group, the interviewers and moderators worked closely with the researcher to optimise the collection of data.

Once the interviews had been conducted, they were translated from Sidamu-Afoo into English for quotation in the thesis. Nevertheless, during the translation process from Sidamu-Afoo to English, some translations were overly literal, resulting in gaps in sentence construction and grammatical inconsistencies. While some quotations were clear and well-structured, others show inconsistencies that suggest weaknesses in translation, rather than indicating difficulties on the part of the participants in expressing themselves. To address this, I revised the translations to ensure coherence. By improving the grammatical structure of these translations, the revised text will more accurately reflect the participants' original intent and enhance clarity for purposes of analysis and for the reader.

4.9 Strategy for data analysis

Qualitative data analysis is the process of making sense out of the data (Merriam & Tisdell, 2015: 202). Babbie (2010: 394), refers to qualitative data analysis as the “non-numerical examination and interpretation of interview transcripts for discovering the underlying meanings associated with the topic of interest”. The data analysis process involves examining data for clues, fitting data together, reducing the data, making the invisible obvious, linking commonly expressed viewpoints, and interpreting textual data collected from the field (Bassett, 2004; Savin-Baden & Major, 2010). These textual data could be interview transcripts from interviews and focus groups, observation and other notes and other data sources that the researcher uses to aid understanding of the phenomenon (Polit & Beck, 2009). The researcher reviewed data from these sources and organised it into a

coherent structure so as to elicit meaningful interpretations of the phenomenon from the perspective of those experiencing it (Longhofer et al., 2012; Polit & Beck, 2009).

The process of analysing qualitative data is a systematic process involving identifying essential features and relationships as well as transforming the data through interpretation (Groenewald, 2004). The process requires the researcher's continuous involvement with the data, starting in the field during the data collection process. Various authors emphasise the value of doing analysis hand-in-hand with the data collection and the write-up phases of qualitative study (Creswell & Creswell, 2018; Pitney & Parker, 2009). Data analysis does not necessarily happen only after collecting all the data, but can be an ongoing, iterative process which occurs throughout the life of research project (Salazar et al., 2015; Silverman & Marvasti, 2008). This can assist the researcher to identify emerging insights, hunches, and tentative hypotheses that needs to be explored in the next phase of data collection (Merriam & Tisdell, 2015). It also enables the researcher to review, verify the information obtained, and modify the interview questions in relation to the research question (Silverman & Marvasti, 2008). Continuous comparison of the new data arriving as interviews are transcribed with data that has already been collected is important to search out meaning and deeper understanding and identify divergent views or inconsistent ideas that needs to be explored in subsequent interviews (Bryman & Burgess, 1994; Polit & Beck, 2009). Moreover, simultaneous engagement in data collection and analysis activities can help the researcher evaluate fresh developments, to make decisions based on emerging ideas, ensure that the collected information accurately represent the broader realities under study; and facilitates a detailed investigation of the subject under study (Creswell, 2009; Pailthorpe, 2017).

In line with these recommendations, analysis of the data in this study began simultaneously with data collection, as follows: data collected in the field was transcribed verbatim and translated immediately at the end of each in-depth interview and focus group discussion; analysis of the data then began directly, with the categorisation of data into different themes – an approach called thematic content analysis.

Thematic content analysis is defined as a method of analysis that requires the researcher to engage in an iterative process of critical thinking, questioning, and categorising written transcripts of verbal material to make inferences about the characteristics and experiences of participants (Lapan et al., 2012). It involves identifying, segmenting and categorising common or recurring ideas expressed in the interviews grouping them into themes in a way that facilitates the search for patterns of experience within a qualitative

data set (Braun et al., 2019; De Chesnay, 2015; Jason & Glenwick, 2016; Leavy, 2017). Such themes are developed to reflect some level of patterned description that is relevant to the research question, so that the researcher can interpret participants expressions in a meaningful and organised way (Braun & Clarke, 2006; Flick, 2014). Analysing data based on thematic categories helps to examine the perspectives of different research participants and the connection between the themes (Nowell et al., 2017: 2). Such flexibility in the thematic analysis process is important to produce trustworthy, rich, detailed, complex and insightful findings (Braun & Clarke, 2006: 78; Nowell et al., 2017: 2).

In this study, thematic categories were identified from the transcripts, along with the conceptual framework provided by the theoretical models informing the study, to organise the lived experiences and perspectives of the community into different themes. The theoretical constructs of the theory of planned behaviour and the socio-ecological model were used during the data analysis and triangulate with information obtained from the field to make sense of the data (Babbie, 2010). Similarly, data from the written transcripts of in-depth interviews and focus group sessions, along with the research team's field notes, were analysed and interpreted for meaning.

Since the intent of qualitative data analysis is to transform large amounts of data into more manageable bits of information, it can be carried out through the use of multiple levels of analytic procedures, so help make meaning of the data (Creswell & Creswell, 2018; Sundler et al., 2019). This study employed Miles and Huberman's (1994: 429) five qualitative data analysis steps to analyse the data: reading, coding, displaying, reducing, and interpreting of meanings related to the study topic. These steps, which form the backbone of, qualitative data analysis, are essential to describing the phenomenon, classifying it, seeing how different concepts interconnect and identify recurring themes or ideas in transcripts (Jason & Glenwick, 2016; Sundler et al., 2019; Tolley et al., 2016). The use of these five steps is described below.

4.9.1 Reading: Familiarisation with the data

Analysis of qualitative data begins immediately after transcribing each audio recording of an in-depth interview or focus group discussion. After checking the transcript against audio records and the researcher's field notes for consistency, the researcher reads the transcript several times (Polit & Beck, 2009). This stage is useful for the researcher to

become deeply acquainted with the content and begin to actively search for meaning and take note of the patterns in the data that may form the basis for coding during the analysis (Jason & Glenwick, 2016; Morse & Field, 1996; Tolley et al., 2016). It is important that the researcher continues to immerse themselves in the data by reading and re-reading the transcripts until they are completely familiar with the data and are ready to begin to make sense of it (Tolley et al., 2016).

Familiarity with the data helps the researcher to organise the data based on participants' perspectives by systematically searching for recurring patterns, commonalities, novel ideas and variable views across the data that are unusual, noteworthy or contradictory (Braun et al., 2019). Repeated reading of the transcripts enables the researcher to identify divergent views, emergent ideas and other surprising experiences expressed by participants (Hammersley & Atkinson, 2007; Sundler et al., 2019). Moreover, repeated reading of the information collected from the initial interviews allows the researcher to get a feel for the participants' experience of the phenomenon in question and to think about things that could be pursued in subsequent interviews or focus groups (Sutton & Austin, 2015). Thus, the researcher continuously reads the transcripts in order to prepare for the next step of data analysis.

4.9.2 Coding: Identifying the emerging themes

After the researcher become familiar with the transcript data, the next analytical step focuses on identifying segments of the data set that relate to the various sub-questions (Merriam & Tisdell, 2015). The researcher develops analytic categories for the data set that describe and segment the issue under investigation. This process of noting patterns of interest in the data putting it into appropriate categories is called coding (Seidman, 2006: 125). In this step, the researcher categorises a large amount of data from transcripts into smaller, more manageable categories, so that data from different sources can be easily organised and compared (Akinyode & Khan, 2018).

Codes that emerge inductively from the data set, driven by the theories used in the study and the review of previous literature, can be identified and used to organise the data meaningfully. (Jason & Glenwick, 2016; Merriam & Tisdell, 2015; Polit & Beck, 2009). For instance, the researcher identifies codes by looking at the ideas that emerge from participants (Gale et al., 2013).

In this study, codes derived from core constructs of the theory of planned behaviour and the socio-ecological model were considered in the coding process and integrated with codes driven from the collected data. This enables the researcher to consider coding as many different relevant perspectives as possible.

Dey (1993), describes this process of developing and creating analytic categories as a dialect between the categories and the data, in which the researcher is involved in continuous coding process by moving backward and forward between the two, code and data, until adequate information is gained for analysis. Using this approach assists the analyst to identify gaps or questions that may necessitate returning to the field for more data and/or allows concepts to be redefined to improve coding structure (Tolley et al., 2016). Moreover, continuous coding process helps the researcher to make sure that the right information was labelled at the right coding categories (Gillham, 2000: 60). This ensures that each data item is addressed well and coded properly in categories are not interchangeable or redundant, and are responsive to the purpose of the research (Braun & Clarke, 2006; Merriam & Tisdell, 2015; Nowell et al., 2017).

Coding can be done manually or using software programme. In this study, the researcher selected Atlas ti, a qualitative data analysis software package that automatically keeps track of new codes (Friese, 2019). During analysis, transcripts from individual interviews and focus group discussions, as well as field notes, can be exported from Microsoft Word to Atlas ti. Through this process, the researcher develops a coding structure for the data that supports a comprehensive understanding of the issue, the field, and the data themselves (Woolf & Silver, 2018).

At the end of the coding process, the Atlas ti software can also be used to generate a coding report so that the researcher can easily examine each theme that has emerged from the data separately and fully (Friese, 2019). The coding report helps to move the analysis forward as it aggregates similarly-coded segments of text from the set of original transcripts or field notes (Tolley et al., 2016). To this end, the researcher generated a coding report that depicts the inclusion of relevant text segments in each coding category and summary information about the frequency with which the codes appeared in the data set.

4.9.3 Displaying data: Distinguishing nuances of a topic

At this stage of data analysis, the extracted information in the coding report on each individual coding category is examined closely by the researcher with the objective of displaying the data. Displaying data involves examining each theme in order to make an inventory of what has been found in the data relevant to the theme, assessing the variations within, or richness of, each theme; and understanding differences between or among individual thematic categories (Tolley et al., 2016). With this concept in mind, the researcher carefully reads the whole data set for each coding category and prepare detailed memo for each code, so that descriptive information is rendered about people, events, or experiences shared by the participants (Creswell & Creswell, 2018; Polit & Beck, 2009). This enables the researcher to understand how different codes may fit together into broader themes (Jason & Glenwick, 2016).

The analytical techniques employed at this step focus on reassembling and reorganising the data, codes, categories, or stories into larger ideas or principal thematic categories, consolidating the data into a small number of themes or categories (Flick, 2014). Polit & Beck (2009: 471), recognise the process of grouping different themes together into an integrated whole as a crucial step to develop an overall structure for the data. For this reason, the researcher reads the data to examine evidence that supports each theme and organises them into a hierarchical structure, with higher order themes and subthemes (Miles & Huberman, 1994). These themes are used as the key delineators of the data that are used to shape qualitative study findings and are typically used as headings when reporting the findings of the study (Creswell & Creswell, 2018). For example, while writing up the findings of the study, meanings found from participants experiences were explained by starting with the themes and the descriptive text, illustrated with quotes.

To facilitate the analytic process, the researcher constructed a diagram, or conceptual map, to model the relationships between the codes, themes, categories, concepts, and contexts in the data. Akinyode & Khan (2018), call this a ‘thematic network’, explaining that it involves a process of exploring the links that exist between the explicit statements and the implicit meanings in the data. The purpose of the diagram is to model the flow of ideas and demonstrate how one theme is related to others, so that each of the identified themes is organised into a meaningful whole (Lawrence Neuman, 2014; Sundler et al., 2019). It is also seen as an essential analytic tool for identifying additional themes that have been missed, as well as relationships, gaps or patterns that exist in the data (Polit & Beck, 2009). Miles et al. (2019) recommends having more systematic, powerful displays

and urge researchers to be more inventive, self-conscious, and have iterative stance in displaying data.

4.9.4 Data reduction: Getting the big picture

Data reduction is refers to “the process of refining the information to make visible the most essential concepts and relationships” (Tolley et al., 2016: 204). Reducing data is very helpful in order to edit the data, summarise it, and make it more manageable

Data reduction is better explained as data condensation process. Miles et al. (2019: 8) refer to data condensation as “the process of selecting, focusing, simplifying, abstracting, and/or transforming the data that appear in the full corpus (body) of written-up field notes, interview transcripts, documents, and other empirical materials. ” Miles & Huberman (1994), argues that such process is instrumental in making data stronger as it enables the analyst to remain open to induce new meaning from the data. As part of this process, the researcher makes decisions about the different aspects of the data that needs to be emphasised, minimised, or separately managed in order to answer the questions posed in this study. This means the researcher chooses which data chunks to code and which to pull out determining which evolving story to tell. Findings arising out of the data analysis at this stage are drawn based on ideas that emerge from participants and any conclusions are also supported by taking their direct quotations. This enables the researcher to identify the most representative story told by participants (Namey et al., 2008)

Data reduction is not a one-time activity. Rather, it is an activity that can be carried out throughout the life of the project. Longhofer et al. (2012), emphasise the importance of integrating data reduction techniques with other research phases. Constantly working on the data allows the analyst to be more familiar with the content and categories of data and to get a wider perspective on the data. Besides this, the diagrams, or taxonomies, created in the analysis process help the researcher to get an overall sense of the data and distinguish central and secondary themes, separating the essential from the nonessential (Tolley et al., 2016). Thus, data reduction processes were carried out in a way that sharpens, sorts, focuses, discards, and organises data as well as making conclusions that can be drawn and verified (Miles et al., 2019).

4.9.5 Interpreting

In this stage, the researcher focuses on finding meaning from the codes and themes in a way that answers the thematic questions (Salazar et al., 2015). This is done by interpreting the information gained from the study participants. Interpretation is defined as "the process of identifying and explaining the qualitative data's core meaning" (Tolley et al., 2016). It involves conveying key ideas from the qualitative data to a wider audience and remaining faithful to your participants' perspectives. In this study, mothers and other experts' views were interpreted based on the responses they gave to the interview questions.

Interpreting is concerned with giving meaning to different data components like emerging themes, subthemes, concepts and contradictions (Yin, 2016). In this study, the researcher developed a diagram or a coding tree that shows the hierarchical connections between themes and the corresponding subthemes. This enables a researcher to examine relationships among themes and understand how themes function and coexist within a specific paradigm (Salazar et al., 2015).

4.10 Ensuring the quality of qualitative data

This section provides a brief description of the efforts made by the researcher to control the quality of the research findings. Ensuring the quality of qualitative data is an important aspect in qualitative inquiry in order to gain readers attention and trust, so that it potentially spurs them to action (Treharne & Riggs, 2014). The quality of qualitative findings depends on the quality of the methods used, procedures employed, or approaches used throughout the project period, and on the quality of the knowledge produced (Fitzpatrick, 2018). Thus, the strategies used to conduct qualitative inquiry are critical to build trustworthiness and ensure adequate rigour in the methods, so that the researcher is certain of the results and readers will be confident enough to build on the results.

As the purpose of this study was to enrich the understanding of the experience of mothers in using maternal healthcare services, the evidence produced from the study should accurately reflect the phenomenon. This means the qualitative data must be accurately translated, conceptualised, and collated in a way that reflects the worthiness of results for future decisions and actions (Goodyear et al., 2014).

The quality of a qualitative study is marked by the extent to which it is aligned to the theoretical framework informing the research design, the research question(s) and the methodology used in the study, as well as with the reporting of the research findings (Stenfors et al., 2020). Though qualitative inquiries are frequently accused of subjectivism by giving more emphasis to participants' ideas, traditionally, its quality is determined by its reliability and validity (Babbie, 2010). Validity, in qualitative research, refers to the appropriateness of the research tools, processes, and methodology for answering the research question (Leung, 2015: 325). Reliability refers to whether consistent results are obtained when the same measures are used repeatedly (Jason & Glenwick, 2016: 36). However, Jason & Glenwick (2016), the concepts of validity and reliability are considered to be inadequate for determining the quality of qualitative research. Instead, qualitative researchers recommend various approaches to ensure the quality of qualitative inquiries.

Tracy (2019: 266), identifies eight 'big-tent' criteria for conducting high quality qualitative research: worthy topic; rich rigor; sincerity; credibility; resonance; significant contribution; ethical research practice; and meaningful coherence. On the other hand, Patton (2015) proposes seven sets of alternative quality qualitative inquiry judging criteria that are embedded in traditional scientific research principles: socially constructed truth, artistically present truth, system to analyse complex information, participatory and collaborative, critical change making strategy, and pragmatic research in informing action and decisions.

More recontextualised criteria for judging the quality of qualitative research have been offered by Lincoln & Guba (1985), under the banner of trustworthiness; these include: credibility, dependability, confirmability, and transferability. Here, trustworthiness is referred as the quality of an inquiry to ensure whether the findings and interpretations made are an outcome of a systematic process, and whether the findings and interpretations can be trusted (Lincoln & Guba, 2013). This suggests that trustworthiness can be determined in two ways: through the application of methods and through the interpreting of outcomes. In this study, these four criteria – credibility, dependability, confirmability, and transferability – have been used to ensure the trustworthiness of the qualitative data.

4. 10. 1 Credibility

Credibility is concerned with ensuring whether the research findings were drawn from the original data collected from the participants and whether interpretations were made

correctly based on this original data (Korstjens & Moser, 2018). Credibility is achieved to the extent that the research methods engender confidence in the truth of the data and interpretation of findings, including an accurate understanding of the context and attention to all relevant voices (Polit & Beck, 2012; Tolley et al., 2016). The process of assuring the credibility of qualitative inquiries usually consists of validation of data, validation of findings, and checking of interpretations (Boswell & Cannon, 2018). According to Patton (2015), the credibility of qualitative inquiry is dependent on four inquiry elements: systematic, in-depth fieldwork that yields high-quality data; systematic and conscientious analysis of data; the credibility of the inquirers conducting the inquiry; and the philosophical belief of the users and readers of the research in the value of qualitative inquiry.

To assure the credibility of qualitative data in this study, the participants were engaged in lengthy and intensive contact in the field to assess salient views, triangulate different data sources to verify the data, and check the referential adequacy of the information obtained from the field (Lincoln & Guba, 1986, 2013). The reactions of the participants were also observed and noted down, and transcriptions checked against the recorded interviews and compared with her notes to determine and verify the credibility of the data. Moreover, the coded data from the transcripts was independently reviewed and verified by other qualitative researchers to further support the quality of the data. Such processes are essential to finding consistency in the overall patterns of data gathered from different sources or explaining variations observed in data obtained from divergent sources, thereby contributing to the overall credibility of the findings (Patton, 2015).

4.10.2 Dependability and trustworthiness

Dependability in qualitative research can be described as the auditability of the research process used to produce the results (Boswell & Cannon, 2018). It is an important criterion for ensuring the trustworthiness of qualitative data, because it verifies that the study's findings are consistent and repeatable Polit & Beck (2012) define dependability as the stability or reliability of qualitative data over time and conditions, if it were replicated in other similar contexts.

In order to increase dependability of this study, the researcher developed and used a study protocol to guide the overall research process, so that consistent and comparable procedures were employed with careful attention to the rules and conventions of

qualitative methodology (Tolley et al., 2016). Thus, the researcher checked whether the study process was in line with the accepted standards to ensure logically consistent patterns of response that would remain reasonably stable over time.

The notion of dependability was considered in this study as it aimed to demonstrate that the findings and interpretations of the study are consistent with the collected data. Assuring dependability enables the researcher to ensure whether the results obtained from the study are the outcomes of a consistent and dependable research process (Merriam & Tisdell, 2015). This involves evaluation of the study findings, interpretation and recommendations to see if they are supported by the raw data gathered from participants in the study. Supporting this view, dependability is recognised as a key quality criterion that significantly contributes to ensuring the credibility of a study's findings and interpretations (Polit & Beck, 2012).

To establish the dependability of qualitative data, the researcher describes the research process in detail to demonstrate that the process is logical, traceable and documented (Patton, 2015). For ensuring dependability of the study, Lincoln & Guba (2013), suggested to conduct inquiry by outside researcher who is responsible to review, examine, explore, and challenge how the inquiry process was conducted as well as how the data collection, data analysis, findings, interpretations, and recommendations of the research study occurred. The audit documents the procedures carried out in the study and provides an adequate amount of evidence about the research findings. This technique can give the researcher valuable insight into the inquiry process to ensure that nothing was missed in the research study, to confirm the accuracy of the findings, and to ensure the findings are supported by the data collected.

4.10.3 Confirmability

Confirmability refers to making sure that the research findings are free of researcher bias, assumptions, or opinions and are presented with neutrality (Boswell & Cannon, 2018). It refers to the degree to which the accuracy, relevance, or meaning of the findings can be confirmed by other researchers (Korstjens & Moser, 2018; Polit & Beck, 2012). This aspect is essential to make sure that the findings and interpretations are the result of a dependable process of inquiry, including the data collection methodology (Lincoln & Guba, 2013). The findings of a confirmable research study are important for studies that focus on providing policy recommendations. In order to establish the neutrality of the study

findings, the researcher provides a detailed methodological description by checking and rechecking the data during the entire research project.

This criterion was considered with the goal of verifying that the findings were articulated as accurately as possible according to the participants' perspectives and experiences. The researcher established confirmability of the study findings and interpretations based on the information provided by participants through narratives and words. Besides this, to make sure that the findings are free from potential researcher biases, the researcher has maintained clear distinction between personal values and those of the study participants. Thus, the investigator attempts to make her personal philosophy explicit by reflecting on the self, the other, and interactions of the self and other.

Confirmability is achieved when the results, conclusions, and recommendations are supported in the data (Fitzpatrick, 2018). This can be confirmed by an audit trial. An audit trail is a record that enables the researcher and others to track the process that has led to the conclusions (Tolley et al., 2016). Documentation kept by the researcher about their decisions and reflections during the research process, including the sampling process and emergence of the findings, as well as records about the management of the data can be used by the auditor to study the transparency of the research path. The audit part of confirmability is concerned with the product along with the whole process of research (Patton, 2015: 671).

4.10.4 Transferability

Transferability refers to the applicability of the results of qualitative research to other contexts or settings with other participants (Boswell & Cannon, 2018; Korstjens & Moser, 2018). It involves making judgments about whether findings from an inquiry can be extrapolated to a different setting or group of people (Polit & Beck, 2012). This criterion is concerned with ensuring the fitness of the findings or conclusions of the study in other contexts and with the existing literature (Fitzpatrick, 2018). Transferability can be accomplished by providing a thorough, or thick, description of the sample, setting, and data in the report to allow the reader to determine the degree of fit of findings or transferability to apply elsewhere (Boswell & Cannon, 2018; Lincoln & Guba, 1986).

Polit & Beck (2012: 525), consider transferability to be an inherent and collaborative endeavour that can be done both by the reader and researcher. In this technique, the researcher has a role of providing detailed descriptive information that allows readers to

make inferences about extrapolating the findings to other settings, where the readers and consumers have a key role in assessing the extent to which the conceptualisations and findings apply to other settings with similar phenomena. This study attempted to provide a thorough explanation of the study phenomenon to help the reader to make comparison and understanding of the context.

4.11 Ethical considerations

This section addresses important ethical concerns that should be taken into considerations while carrying out qualitative research. Ethics can be defined as conformance to the standards of conduct in working with different types of people (Bhattacherjee, 2012). Ethics plays a central role in research practice to make sure that the research is conducted in accordance with ethical codes, laws, and institutional policies (Kyngäs et al., 2020). The consideration of ethical issues is crucial in a qualitative study to keep the balance between the potential risks of research and the likely benefits of the research.

Research in the field of social sciences has an obligation to abide to ethical standards. This requires obtaining ethical approval from the institutions that are entitled to evaluate whether researches that involve human participants are based on ethical standards. To this end, this study secured ethical clearance from the ethics committee of the University of South Africa (UNISA) and also the Bureau of Health of the Southern Nations, Nationalities, and People's Region (SNNPR) to ensure that the research adheres to the ethical rules and regulations required to protect participants while conducting research.

According to Dawson (2007: 150) research ethics is concerned with treating both the research participants and the information they provide with honesty and respect. Practicing ethics in social research includes preventing harm to the people or settings involved in the study, avoiding exploitation of research participants, disclosure of the study findings, ensuring that participation is voluntary, and ensuring the confidentiality of information (Jason & Glenwick, 2016; Leavy, 2014). In sight of this, (Kyngäs et al., 2020) recommended to consider ethical issues throughout the entire research process, from the selection of a research topic, to data collection and analysis, and, finally, to interpretation and dissemination of study results to guarantee the voluntary participation, no harm and anonymity to the participants.

The process of conducting qualitative research involves gaining, building and maintaining trust with study participants. This can be done by employing ethically sound principles or standards like obtaining informed consent, respecting people's autonomy, protecting the welfare of research participants, and preserving their privacy (Leavy, 2014).

In this study, ethical principles were adhered to and the necessary ethical measures were taken throughout the study process to obtain informed consent, protect the rights of participants, and assure confidentiality. To this end, research participants were informed about the objective of the research, confidentiality issues and the audio recording of interviews and focus group discussions, at the very start of data collection, when verbal informed consent was also obtained from all participants. This enables the researcher to ensure that research participants were treated with respect and confidentiality of the information they provide is protected by using pseudonyms and not using personal identifiers in writing report (Bassett, 2004; Cassel & Symon, 2004).

4.11.1 Informed consent

Informed consent is a crucial aspect in ensuring that research practice is undertaken ethically. Social Research Association (2003: 28), defined informed consent as "a procedure for ensuring that the research participants understand what is going on, the needs and limits to their participation and awareness of any potential risks they incur". It helps the researcher to negotiate with research participants by being open about the research process and creates trust between researchers and participants (Israel, 2014).

Cozby & Bates (2012: 44), states informed consent as a mechanism to provide potential research participants with all the information that might influence their decision to participate in the study. It involves carefully explaining the research processes either verbally or by providing written information to the participants to enable them to understand the purpose and nature of the research and their role in it (Yin, 2016). The researcher provides clarification to the study participants regarding the possible risks and benefits of participating in the study, the voluntary nature of participation, gives assurances of confidentiality, and explains the purpose of the research, why the participants were chosen to participate, data collection procedures, and whom to contact for their questions and concerns (Chatburn, 2011). This enables the participant to be fully aware of the objective of the study and what will be involved before they agree to participate in the research.

The information included in the informed consent not only explains the nature of the research, it also assures confidentiality and respect to participants during research (Berg, 2001). Accordingly, verbal informed consent is obtained from each participant prior to engaging in data collection activities. Obtaining signed consent is considered an essential step in ensuring that participants are knowingly deciding to participate in the study based on the information provided in the consent form (Finlay & Ballinger, 2006).

Informed consent is useful to deliver all the relevant information necessary for participants to make a proper decision in a conscious, deliberate, and voluntary way (Bassett, 2004; Mack et al., 2005). Voluntary consent protects the participant's autonomy to decide whether or not to participate in research and minimises researchers' legal liability (Bowling, 2009). In this study, a thorough explanation was given to participants of the purpose of the study and the value of their participation. Additionally, participants were asked if they had any queries about the study, so that the researcher could ensure that their concerns were clearly addressed.

4.11.2 Confidentiality

Confidentiality refers to the responsibility to maintain the privacy of personal information revealed in the research process (Kimmel, 2007). It is concerned with protecting people's identities during interviews and during the reporting and disseminating the findings; this means the data is reported in such a way that it cannot be associated with a particular individual (Lapan et al., 2012). To ensure confidentiality, Polit & Beck (2012), suggested to assure the research participants that any information they provided would not be disclosed directly in a manner that identifies their identity, and would not be accessible to others. In this study, participants were informed prior to collecting data that the information obtained would be kept anonymous to maintain confidentiality; their names and their involvement in the study would not be disclosed.

Ensuring confidentiality in qualitative research can have a significant impact in obtain the cooperation of participants and addressing the imbalance of power that might occur between the researcher and research participants (Lune & Berg, 2016; Rapport, 2004). Moreover, maintaining confidentiality during data collection facilitates free-flowing communication and discussion during the course of individual and focus group interviews, thereby eliciting data in greater detail from participants (Duncan, 2009; Savin-Baden & Major, 2010).

In qualitative study, social researchers emphasised the need of giving special consideration to the protection of the data collected from the field (Hammersley & Traianou, 2012; Kimmel, 2007). Some of these strategies employed to ensure confidentiality of data were restricting access to audio recordings, transcripts, field notes, and other documents to anyone other than researchers; protecting anonymity by avoiding all personal identifiers; and not presenting or publishing any identifiable information. In addition to this, after finishing the research project, audio-records, transcripts and other files were kept in a secure manner that was not easy for others to access so as to protect the confidentiality of the research participants.

4.11.3 Respecting autonomy

Autonomy means respecting persons who participate in the research as autonomous agents throughout the course of the study (Salazar et al., 2015). Respecting autonomy requires accepting research participant's social values and concerns such as cultural beliefs, personal dignity, and rights to take part in the study process (Flick, 2010). It focuses on treating research participants as autonomous persons who are capable of making their own decisions to take part in the study as well as protecting persons with diminished autonomy or capacity (Bordens & Abbott, 2011). Qualitative researchers argue that individuals' capacity and right to make decisions about their own lives should not be undermined in the course of carrying out research (Holloway, 2005; Leavy, 2014).

Respecting research participants' autonomy involves treating the participants as autonomous agents, and giving weight to their ideas and opinions without obstructing them (Israel, 2014). In this study, the research participants were informed about the research and its objective, their right not to participate and not to answer a question that they prefer not to, and their right to withdraw from the study at any point of the data collection. The decision of a person asked to participate in a study to participate in the study or not must be accepted without any need for justification (Salazar et al., 2015). This allows the participants to be free to decide (Bowling, 2009; Savin-Baden & Major, 2010). In this study, the autonomy of research participants was respected and protected to ensure that they were not simply used to illicit responses to the research question.

4.12 Iterative writing and editing process

After completing all stages of data collection, analysis, and interpretation, I wrote the full draft of this thesis and all analysis, theme development, and interpretation of findings was my own work. In completing the full draft, I made use of the assistance of a human editor, Bobbie Laughton.

While drafting further chapters, revising the thesis, and incorporating feedback from my supervisor, I also made use of ChatGPT to help me improve grammar, sentence structure, and academic tone. The AI tool helped me refine paragraph structure and flow while preserving the original meaning and voice of my writing. I submitted small portions of text typically one paragraph or subsection at a time to ChatGPT with prompts such as “Please improve grammar and clarity” or “Can you refine this paragraph to ensure an academic tone?” I carefully reviewed the Large Language Model (LLM) AI tools suggestions and applied only those edits that maintained my original intent. I began manually saving relevant prompts, inputs, and outputs from the time I started using ChatGPT in late January 2025. These records reflect only the language editing phase and do not cover the earlier stages of thesis development such as data collection, analysis, or initial drafting. In response to my supervisor’s request on 2 June 2025, I compiled A representative selection of ChatGPT interactions was shared with my supervisor. For full transparency, all records are securely stored in a dedicated Google Drive folder and remain available for review upon request.

All intellectual contributions, including the research design, analysis, and interpretation of findings, are entirely my own. This is also reflected in the extensive supervisory discussions held throughout the research process, including live screen-sharing sessions focused on data interpretation, literature integration, and citation accuracy ensuring full transparency in how each section of the thesis was developed.

4.13 Conclusion

In this chapter, the methodological underpinnings considered in conducting this study were briefly discussed. The chapter has provided a detailed description of the research paradigm and argument along with the methodologies and techniques applied in this study. It outlines the methods and procedures employed in the research process to guide the ways in which knowledge production was carried out – including data collection, data analysis and interpretation – informed by the theoretical explanations used for the study.

It described the exploratory qualitative research design employed to explore the perspectives of members of the community regarding the use of maternal healthcare services during pregnancy, delivery and immediately after delivery in Sidama Region.

Since this study aimed to gain a deep understanding of the lived experiences, perspectives, and socio-cultural influences that impact mothers' utilisation of antenatal, delivery and postpartum care services, an exploratory qualitative research methodology was employed as a viable approach. Data was collected using in-depth interviews and focus group discussions from participants selected using snowball and purposive sampling techniques. This approach successfully facilitated systematic data collection to generate knowledge based on the views and beliefs shared by participants. Data was analysed based on the principle of thematic content analysis, where ideas that emerged from interview transcripts, observation notes and concepts drawn from the theoretical models employed in this study were used to understand the lived experiences and perspectives of participants through different themes using a five-step data analysis strategy.

The chapter has also highlighted the strategies outlined for ensuring the quality of the qualitative data and has described the strategies used to maintain ethical standards throughout the research process.

Employing an exploratory approach with qualitative data collection methods like conducting in-depth and focus group interviews among different groups within the community elicited participants' insights and experiences, providing rich and nuanced data essential for developing an in-depth response to all the facets of the research question. Methods like interviews and focus group discussions enabled the exploration of diverse viewpoints on healthcare services among pregnant women and recent mothers. This in turn facilitated new insight into mothers' perspectives and utilisation of maternal healthcare services. Generating knowledge based on the views and beliefs that participants shared during data collection, helped to identify gaps in the implementation of maternal healthcare programs.

CHAPTER FIVE: RESEARCH FINDINGS ON COMMUNITY PERSPECTIVES OF MATERNAL HEALTH SERVICES IN SIDAMA REGION, ETHIOPIA

5.1 Introduction

This chapter presents the research findings derived from in-depth interviews and focus group discussions conducted with mothers in the Sidama region. The study explored mothers' views and lived experiences of maternal healthcare services, with particular emphasis on their own perspectives, the challenges encountered in accessing care, and the factors influencing the utilisation of facility-based maternal health services. The findings are organised into key themes and sub-themes that align with the sub-questions and research objectives.

This chapter presents the key findings organised around four thematic areas that reflect the levels of influence shaping maternal health service utilisation. Each section offers a detailed account of the barriers and enablers that shape maternal health service utilisation in the local context. Where appropriate, existing literature is acknowledged at the end of each subsection to contextualise the findings and demonstrate their theoretical and practical relevance highlight points of relevance.

The accessibility of maternal health services is addressed first, followed by an exploration of the perceived quality of care that responds to questions around service utilisation and the role of healthcare institutions in shaping maternal experiences.

Institutional and organisational-level factors are addressed first. These include the availability of trained healthcare staff, adequacy of infrastructure, and the functionality of referral systems linking health posts to higher-level facilities. Such institutional dynamics significantly shape women's access to care by influencing the continuity, responsiveness, and perceived reliability of services. This is following examination of socio-cultural and community-level factors, including the influence of family members, the role of the Health Development Army (HDA), and the contributions of the Pregnant Women's Conference (PWC) and the referral links between health posts and facilities. These actors shape prevailing norms and expectations, which can either facilitate or restrict women's ability to seek biomedical care. The chapter then turns to knowledge and awareness of maternal

healthcare. Women's understanding of available services, their previous experiences with home births, and how information circulates within families and peer groups are analysed as key factors shaping health-seeking behaviour.

The next section investigates traditional beliefs and cultural practices, and finally, the chapter presents mothers' individual perspectives and decision-making regarding the use of the available services, which reflect the culmination of broader structural and social influences, filtered through personal experience and decision-making processes.

5.2 Health system and contextual factors in maternal health services use

The uptake of facility-based maternal healthcare in the Sidama region is shaped by multiple barriers, including limited autonomy in healthcare decision-making, domestic workload, transport challenges, and hidden costs. This section explores how these factors collectively restrict women's ability to seek and utilise maternity services, drawing on participants' lived experiences to illustrate key access challenges. Importantly, this section also considers whether these accessibility barriers influence maternal healthcare utilisation differently across antenatal, delivery, and postpartum stages. It further examines how women assess and prioritise accessibility constraints at each stage, offering insights into the distinct decision-making processes that shape their engagement with maternal health services throughout the continuum of care.

5.2.1 Ineffective identification and referral system

An effective identification and referral system is critical to ensuring that women access higher-level services when necessary. However, in the Sidama region, challenges such as inadequate resources, long waiting times, and inefficiencies in the referral process limit its effectiveness.

Health Extension Workers (HEWs) are tasked with identifying, registering, educating, and linking pregnant mothers to health facilities. However, their role in identifying pregnant mothers has been limited. According to Luulakko (2021), the regional Maternal and Child Health Programme Coordinator, the early identification of pregnant mothers remains very low. He stated:

> "…but in our efforts to improve the uptake of antenatal care services, one significant challenge we have identified is the inadequate early identification of pregnant mothers

by health extension workers. Currently, the rate of identifying pregnant mothers at the 20th week of gestation is alarmingly low" (Luulakko, 2021).

Health Extension Workers themselves acknowledged that early identification and linkage of pregnant women to health centres for prenatal care remains challenging. Miirtu (2021), a HEW who participated in an in-depth interview, explained:

"…there is a misconception among mothers regarding early notification of pregnancy and beginning follow-up. Some mothers fear disclosing their pregnancy status early, preferring to confirm their conception privately. Others view early initiation of follow-up as requiring additional time and effort" (Miirtu, 2021).

Traditional birth attendants play a key role in referrals, but an ineffective system hampers these efforts. Dukkani (2021), a traditional birth attendant, explained:

"... Based on the information we get from Health Extension Workers, we send pregnant mothers to health facilities to get vaccinations and delivery care, because if she doesn't get appropriate care, she may have problems, as we have seen before" (Dukkani, 2021).

At the systemic level, referral inefficiencies stem from the lack of ambulances, poorly coordinated transport logistics, and delays in service at higher-level facilities, which result in late or failed care transitions. At the community level, these failures are experienced relationally when referrals made by trusted local actors like traditional birth attendants (TBAs) and HEWs do not lead to timely care, women's confidence in both the local providers and the system as a whole is eroded.

Referral failures differentially affect each stage of maternal care: antenatal referrals for high-risk pregnancies may be delayed or unfulfilled; during labour, the absence of reliable emergency transport can lead to preventable maternal or neonatal complications; and postpartum referrals for complications or infections are often skipped entirely due to logistical and financial constraints.

Overall, the referral system faces significant challenges that undermine women's trust in healthcare and discourage continued care. Strengthening the system is essential for improving maternal healthcare access and outcomes.

In summary, the quality of maternal healthcare services in the Sidama region is compromised by several significant challenges. These include inadequate infrastructure, such as unreliable electricity and insufficient water supply; shortages of medical equipment and supplies; limited availability of qualified healthcare providers; and an

ineffective referral system. Addressing these issues is crucial for improving both the quality and accessibility of maternal healthcare services in the region.

In addition to the health extension workers (HEWs), traditional birth attendants (TBAs) also assist in connecting women to health facilities. Some participants highlighted the TBAs' role in referring women for care. However, if women do not receive appropriate care at the facility, they may lose interest in continuing care. Dukkani (2021), a traditional birth attendant, explained:

> "…based on the information we get from Health Extension Workers, we send pregnant mothers to health facilities to get vaccinations and delivery care, because if she doesn't get appropriate care, she may have problems, as we have seen before" (Dukkani, 2021).

Overall, the findings suggest that delayed identification of pregnancy and weak referral linkages, often due to fears of early pregnancy disclosure, postpone timely care. A well-functioning referral system is critical to enable timely, lifesaving interventions. The delay in antenatal care also affects the delivery and postpartum continuum; women who start antenatal care (ANC) late tend to have fewer contacts with the health system overall, reducing the likelihood of facility-based deliveries and follow-up postnatal care. This fragmented utilisation pattern compounds risks across all stages of maternal care.

This theme reveals how inefficiencies in the referral system - particularly the lack of timely coordination and adequate resource support - erode women's trust and discourage ongoing utilisation of maternal health services. While prior studies have described structural referral pathways (Ministry of Health of Ethiopia, 2015), the participants in this study have described how referral system failures are not only logistical, but relational; women experience disillusionment when promised support fails to materialise. This insight provides a novel perspective on strengthening maternal referral networks in low-resource settings, emphasising the need for improvements that rebuild trust and ensure continuity of care.

5.2.2 Limited transport availability

Beyond cost and distance, the reliability of transport services also emerged as a concern. The study identified that the availability and timeliness of transport services, including ambulances, significantly affect women's ability to access maternal healthcare. While

some participants reported using ambulances during labour, many faced delays that resulted in home births. Qawaaxo (2021) explained:

> "…The presence of ambulance service may help us to reach timely to health facilities, but the service provision is not fair. During my last pregnancy, I wanted to deliver in a health facility, but I couldn't get the ambulance early and I gave birth here at home. I called the ambulance when my labour started, but the ambulance didn't come early. Even though we have to use locally available transport like motorbikes, it is expensive and not comfortable for pregnant mothers." (Qawaaxo, 2021)

Participants also highlighted the limited number of ambulances, causing further delays. Hasamo (2021) shared:

> "…Many mothers live in remote areas that are hard to reach, and marginalised groups face additional barriers. I recall last year when my brother's wife was pregnant, we called for ambulance services, but they arrived late after a long delay, even though she was in pain. We only have one ambulance, which is insufficient for serving our community. We urgently need additional ambulances and improvements in road conditions. " (Hasamo, 2021)

Furthermore, the study found that ambulance services were generally available only for transport to facilities, not for returning home after delivery. Leengitu (2021) described:

> "…No, there is no payment required; maternal health services are provided free of charge. Additionally, we use the ambulance service without any cost to reach the health facility from our home. However, after delivery, transportation service is not provided for us to return home, and we are forced to rely on other private transport options. " (Leengitu, 2021)

Sallanu (2021) further explained:

> "…Personally, the health facility is nearby, so I don't have any issues with the services. However, I have heard some complaints; sometimes there is a shortage of drugs. We do not have to pay for delivery services; everything related to maternal services is provided free of charge. However, transportation access for returning home is not always available for mothers who come from far away. " (Sallanu, 2021)

The lack of reliable return transport and delays in ambulance arrival continue to pose significant challenges for timely access to maternity care.

This finding clarifies that inconsistent ambulance services and the lack of return transport options are not only logistical challenges but also significant barriers to the continued use of maternal healthcare in rural Ethiopia. While previous studies have acknowledged the role of transport in emergency obstetric care care (Kaba et al., 2017; Mengist et al., 2024). My study extends this understanding by illustrating how one-way transport without provision for return discourages follow-up care and limits women's ability to access services during non-emergency situations. By centring women's lived experiences, this study draws attention to overlooked service gaps that weaken the overall effectiveness and sustainability of maternal health interventions (Dadi et al., 2019; Kyei-Onanjiri et al., 2018; Neamin Tesfay et al., 2022; WHO, 2019a). This result modifies prior understandings by showing that transport availability encompasses more than emergency access, significantly influencing maternal health service continuity. In particular, the absence of reliable return transport discourages postpartum care-seeking, while delays in reaching facilities directly affect labour-related service uptake. In contrast, antenatal visits are more likely to be forgone entirely when transport is perceived as unreliable, especially for routine check-ups not seen as urgent.

5.2.3 Cost of transport to access maternal health services

Transport-related barriers further compound the problem. The findings indicated that poor socio-economic status is a major barrier to accessing maternity care. Most participants lived in rural areas and lacked the financial resources to afford transport to health facilities located far from their homes. During in-depth interviews, participants reported the difficulty of making repeated visits due to transport costs. Qarooyye (2021) explained:

> "…The health extension workers in our kebele advised me to visit the health centre during my last pregnancy. I understand it's important to monitor my pregnancy for both my health and my baby's, but the health centre is far from our kebele. The only transportation option is using a motorbike, which is expensive and costs us 10 birr per trip. I can't afford to pay that much every time I need to go, as I don't have any income to support my children. My husband is the sole earner for our family." (Qarooyye, 2021)

Distance itself also presented a barrier. Beeko (2021) shared:

> "…the distance from the health post to the health centre is about the same, so everyone has to travel far to reach the health centre. " (Beeko, 2021)

Overall, transport challenges and long distances contributed significantly to reduced access to maternal health services.

This result modifies prior understandings by showing that, in this setting, the economic burden of routine transportation presents a significant barrier to maternal health service utilisation, as increased travel time and associated costs significantly reduce the likelihood of mothers seeking timely care (Hailemariam et al., 2023; Jalu et al., 2019; Shiferaw & Modiba, 2020; Tesfaye et al., 2020). In the Sidama Region, longer distances correlate with lower maternal health service usage (Gaga et al., 2023; Kea et al., 2023). Research has confirmed that mothers living within a shorter distance to health facilities are more likely to utilise recommended antenatal care services (Atnafu et al., 2020; Eritero et al., 2022). My study provides specific insight into how cumulative transport costs deter continued use of maternal health services among low-income mothers in remote kebeles, highlighting that access barriers extend beyond physical distance**.** This finding deepens understanding by showing that financial transport constraints more often disrupt antenatal and postnatal follow-up visits than delivery care, which is typically prioritised once labour begins. Mothers often reported skipping scheduled antenatal check-ups due to cumulative transport costs, while postpartum visits were considered non-essential when financial resources were limited.

5.2.4 Other hidden costs of maternal health service utilisation

Although maternity services are officially free of charge, hidden costs create barriers to service utilisation. Participants described the financial strain associated with unexpected expenses during facility visits. Arfaaso (2021) noted:

> "…I have no interest in giving birth outside my home. When I go to a health facility during labour, the health professionals ask me to buy baby clothes, but I don't have enough money to afford them. I can't even buy coffee for the people who helped me get to the health facility."

The issue of sudden referrals for medications, sometimes unavailable at public facilities, was also raised. Daabbaro (2021) shared:

> "…occasional unavailability of medications despite the services being free poses challenges. When referred to an external pharmacy, unexpected costs arise, which some mothers cannot afford, leading the community to sometimes avoid modern care."

Additionally, participants discussed the burden of food and drink expenses for the mother and her caregiver during their stay. Dukkani (2021) explained:

> "…Many women fear that health facilities do not provide food or drink, so they prefer home births. Therefore, health education is vital, along with informing them about the services available at health facilities."

This theme extends earlier work by revealing how non-medical and socially expected expenses such as baby clothing, food, and customary gifts interact with poverty to deter service utilisation (Acharya et al., 2016; Merga et al., 2019).

My study generates new insight by showing that even nominal hidden costs can carry significant social and psychological weight in low-income settings, undermining the perceived affordability of 'free' maternal care. This finding highlights how the socio-economic and cultural dimensions of cost barriers extend beyond official service fees, challenging assumptions about 'free' maternal healthcare in rural Ethiopia. It further shows that hidden costs affect different stages of care in distinct ways antenatal and postnatal visits are often avoided due to expectations around clothing, food, or gifts, whereas labour-related care is more likely to be accessed despite such constraints.

5.2.5 Impact of health systems and context on MH services uptake

The uptake of maternal health services is heavily influenced by systemic and contextual factors. In the Sidama region, these include limited early pregnancy identification, weak referral linkages, unreliable transport, high transport costs, and even minimal hidden expenses, which collectively hinder both timely access to antenatal care and continuity of care across the delivery and postpartum stages. These barriers wear away women's trust in the health system, shape prioritisation of care, and disproportionately affect low-income and remote mothers. This theme extends the literature by showing how limitations of the health system interrelate with logistical and financial challenges, translating into relational challenges. The findings linked to this theme demonstrate that health system inadequacies and socio-economic constraints together reduce maternal healthcare utilisation and compromise service continuity.

5.3 Health facility-related factors impacting maternal health care decisions

This section discusses the findings related to the quality of maternal health services, focusing on service accessibility, the availability of health workers, shortages of medical

equipment, the lack of essential drugs and supplies, and the adequacy of infrastructure in health facilities.

5.3.1 Inadequate infrastructure at existing services

The study findings demonstrate that inadequate physical infrastructure at healthcare facilities, such as the lack of electricity for laboratory tests and insufficient water supply, poses significant barriers to mothers accessing the maternal healthcare services they need. These challenges are compounded by localised infrastructure problems within the facilities themselves, further undermining the delivery of essential care.

Leengitu (2021), a mother who gave birth at a healthcare facility, explained:

> "... The health centre in our village has no electric power supply to do the necessary laboratory tests. As a result of this, some mothers told me that they go to other, far health facilities to have this service. So, the government should provide electricity to avail services, which prevents pregnant mothers from suffering by going to other health facilities for different services".

The shortage of water has also become an obstacle to maintaining cleanliness at the healthcare facility. This issue was highlighted by Hayyeesso (2021), who commented:

> "... Improving the cleanliness of the hospital area is required. Because of the crowdedness of the room and lack of water, there is a bad smell at the health facility".

Additionally, the poor quality of roads affects service utilisation. A mother who gave birth at home stated:

> "… Even if the ambulance is available, because of bad roads, it doesn't reach on time, and mothers can give birth on the way, like what happened to me. So, I recommend the government construct better roads for improved healthcare utilisation".

The study confirmed earlier findings that poor road infrastructure exacerbates delays in reaching emergency services, leading to unsafe deliveries and adverse outcomes (Shallo et al., 2022). This is a regional/local infrastructure issue because it refers to the broader environment surrounding the health facility. These infrastructural problems differentially affect maternal care across the continuum: electricity shortages may hinder antenatal care, such as laboratory testing and early detection of complications; poor roads delay emergency referrals, often undermining timely access to both delivery and postpartum care; and water shortages compromise hygiene during delivery. Overall, the findings

indicate that unreliable electricity, inadequate water supply, and poor road conditions create significant barriers to continuous maternal healthcare, ultimately affecting the quality of care available to mothers.

This finding adds to the existing literature (Desalegn et al., 2016; Ethiopian Public Health Institute, 2017a; Jalu et al., 2019) by highlighting a new contextual nuance: the way infrastructure deficits intersect with unreliable electricity and insufficient water supply to create compounded barriers to maternal healthcare access in rural Sidama. My study foregrounds how these intersecting limitations disrupt continuity of care and delay timely utilisation, revealing the cumulative burden of infrastructural deficiencies on maternal health service uptake in under-resourced rural areas. While prior studies documented general infrastructural challenges (Biadgo et al., 2021;Fisseha et al., 2017a) they did not explore how multiple infrastructure failures interact to shape access. This contribution extends earlier work by offering a more nuanced understanding of lived consequences of infrastructure-related constraints on maternal health service uptake in under-resourced rural areas.

5.3.2 Shortage of medical equipment and supplies

The provision of maternity care services is significantly impacted by the shortage of essential medical equipment in health facilities. Healthcare providers participating in in-depth interviews highlighted that facilities in the Sidama region lacked crucial materials, directly affecting the quality of care provided to mothers, especially during childbirth. One participant stated:

> "... we lack adequate materials such as a comfortable delivery coach that labouring mothers find satisfactory, leading to widespread complaints among all mothers" (Baxise, 2021).

The lack of essential resources causes discomfort for mothers and negatively impacts their healthcare experience. A well-equipped environment is vital for positive maternal health outcomes; its absence leads to dissatisfaction and undermines trust in the healthcare system.

The regional maternal and child health programme coordinator emphasised the need for essential equipment at the facility level to ensure effective maternal healthcare delivery:

> "... for effective antenatal care, it is crucial to have essential items such as examination beds for proper assessment of pregnant mothers. Unfortunately, these mandatory materials are largely unavailable across our health facilities. Trained health professionals have highlighted this gap, emphasising that without adequate resources, it is extremely challenging to provide the necessary quality of care to mothers at the health facility level" (Luulakko, 2021).

The coordinator further stressed that the shortage of essential medical supplies within individual health facilities severely limits the ability to provide high-quality healthcare. He noted:

> "... our health facility is critically inadequate, particularly concerning essential materials needed for maternal health services such as BP apparatus. Many of our health facilities lack sufficient supplies, forcing them to share equipment like BP machines among themselves. In some cases, there is only one BP apparatus available, which is shared for BP measurements" (Luulakko, 2021).

Additionally, health extension workers interviewed emphasised the importance of equipping individual health facilities with adequate supplies and medications:

> "To improve maternal health services, the government should avail adequate supplies and drugs in the health facility. The delivery room must also be clean and suitable for labouring mothers. Besides this, to motivate mothers, they should provide some materials like child clothes and soap" (Miirtu, 2021).

Although the availability of essential medicines and supplies is an important indicator of quality care, the findings show that the lack of drugs and supplies at local health facilities acts as a barrier to women utilising maternal health services. According to a participant in a men's focus group interview:

> "... when there are no drugs available at the health facility, mothers are asked to purchase them on their own, or health workers schedule them to return another time. However, government services are provided free of charge to pregnant and labouring mothers. Consequently, many mothers feel disappointed by the lack of medications and become reluctant to seek care" (Ledamo, 2021).

The delivery case team leader similarly highlighted:

> "... mothers are occasionally required to purchase drugs from pharmacies. This situation often results in referrals to distant health facilities, causing additional time and financial burdens for the mothers" (Baxise, 2021).

Importantly, the shortage of equipment and supplies has differential impacts along the maternity continuum: the lack of examination beds and basic tools compromises antenatal assessment and early detection of complications; during labour, insufficient delivery couches and sterile equipment reduce comfort and safety; and postpartum care suffers when essential medications, such as those for pain relief or infection prevention, are unavailable. Each gap discourages mothers at different stages, weakening continuity of care.

In summary, the shortage of medical equipment and supplies at the primary health facility level, coupled with the need to refer patients to better-equipped secondary and tertiary facilities at zonal, regional, and federal levels, significantly hinder effective service delivery and quality care. Ensuring the availability of sufficient supplies and medications is essential for improving maternal health outcomes.

This theme builds on existing knowledge that equipment shortages are a widespread challenge in maternal healthcare (Fisseha et al., 2017a). My study, however, reveals a new dimension: how chronic scarcity of essential medical equipment and supplies leads to repeated experiences of disappointment and distrust among women. These persistent negative experiences discourage continued engagement with facility-based maternal care. Additionally, the consistent availability of supplies positively shaped the motivation of women who participated in the study to seek care, underscoring the role of perceived resource adequacy in influencing service utilisation.

5.3.3 Limited range of services

Access to adequate postnatal care remains a significant gap in some health facilities. One in-depth interview participant reported:

> "No, I have not received any additional services after giving birth. After delivering at the health facility, I stayed there for about half a day, but afterwards, there was no follow-up or further care provided" (Faayyo, 2021).

The regional maternal and child health programme coordinator also discussed how cultural practices in certain areas contribute to limited engagement with postnatal services:

> “With the current situation, some mothers are not interested in bringing their children for postnatal care visits due to cultural practices in certain areas. It’s not representative of the entire Sidama region, but it is a problem in limited areas” (Luulakko, 2021).

This limitation in postnatal services affects both the immediate and long-term well-being of mothers and infants. At the regional level, sociocultural norms and poor community linkage systems restrict mothers’ postnatal engagement. At the facility level, the absence of follow-up care and postnatal counselling indicates a localised service gap within primary care settings.

In contrast to antenatal care where most mothers had at least one contact and delivery care, which is often prioritised due to its urgency, postnatal care is the most neglected stage in the maternity continuum. The absence of follow-up after childbirth creates a service vacuum at a time when maternal and neonatal complications are most likely to arise.

Prior studies have documented low postpartum care utilisation in Ethiopia (Ethiopian Public Health Institute & Inner City Fund, 2019). and highlighted the critical timing of maternal and neonatal deaths within 48 hours after birth (WHO, 2019b: 14). This study provides new evidence that limited postnatal support, compounded by cultural barriers, significantly constrains women’s engagement with care even after successful facility-based deliveries. These findings underscore the necessity for context-sensitive postnatal care strategies in areas where follow-up service utilisation remains critically low.

5.3.4 Limited availability of healthcare providers

The shortage of qualified and trained healthcare providers significantly affects service uptake. A traditional birth attendant explained:

> “... there are no doctors at our health centre. If there is a serious problem with a pregnant mother, we refer her to another health institution. If possible, the government should provide skilled health professionals to our health centre” (Danchile, 2021).

Furthermore, the absence of Health Extension Workers at health posts was also identified as a challenge:

> “... If the health centre were closer and open round the clock, utilising the service would not be an issue. However, it is located far away and frequently closed. Even when we

> opt to visit the health post, it is sometimes shut during operating hours, and the Health Extension Worker is not consistently available" (Beeko, 2021).

At the local level, the irregular presence of staff at health posts and inconsistent opening hours reflect service-level disruptions that discourage care-seeking, even when physical infrastructure is in place. At the systemic level, the widespread absence of trained personnel particularly doctors and midwives in rural primary health centres highlights persistent human resource deficiencies within the healthcare system.

These staffing shortages differentially impact the maternity care continuum: antenatal screening and counselling are delayed or skipped when midwives are unavailable; delivery services are severely compromised in emergencies due to the lack of skilled birth attendants; and postpartum follow-up is often entirely missed when health workers are absent or fail to conduct community outreach. Overall, the limited availability of healthcare providers, particularly doctors and extension workers, affects mothers' access to timely and quality care.

This finding adds to the existing literature by illustrating how inconsistent availability and absenteeism of healthcare providers at health posts create specific operational barriers to maternal health access, even when facilities exist and can be accessed. Unlike prior studies that broadly identified staff shortages as a challenge (Girma et al., 2020), my study exposes the disruptive impact of irregular hours and absence of skilled professionals, which undermine timely and quality care delivery. These overlooked service disruptions highlight critical gaps in human resource management that directly limit maternal health service uptake.

5.3.5 Accommodation of religious and traditional rituals

Health facilities typically enforce rules and norms to maintain a conducive environment for all patients. Loud praying during labour, while culturally significant, may disrupt the calm required in healthcare settings. In Sidama culture, prayer during labour is often vocal, which may conflict with facility expectations.

This issue was raised by a traditional birth attendant:

> "... They prefer childbirth at home, where they can freely pray to God. They find it challenging to pray in a health facility and view giving birth away from home without the opportunity to pray as shameful" (Dangiite, 2021).

Another similarly commented:

> "... It is embarrassing to give birth in a health facility because you are unable to pray to God there" (Dunguure, 2021).

In summary, the findings suggest that the desire to pray freely during labour acted as a barrier to giving birth at healthcare facilities, hindering the use of institutional maternal health services. To address this, it was suggested that prayer spaces be set up at a distance from other patients, or that a prayer leader be trained to pray quietly to reduce noise if it was a concern. By accommodating cultural preferences in this way, the uptake of maternal health services could be increased, allowing women to feel more comfortable and respected during their labour while still receiving the necessary care.

In summary, the findings reveal that the desire to pray freely during labour constitutes a significant cultural barrier to facility-based deliveries. To address this, participants suggested creating prayer spaces separated from other patients or training prayer leaders to pray quietly, which could increase maternal health service uptake by making women feel culturally respected while receiving care.

This theme extends earlier work by revealing how specific cultural practices related to prayer during labour directly influence service utilisation in Sidama. Echoing the findings of earlier research, religious practices during childbirth particularly the desire to pray during labour have been reported as barriers to facility-based deliveries, as seen in the Afar region, where relatives discourage institutional births in favour of prayer rituals over professional care (Ahmed et al., 2019). Cultural and familial beliefs similarly influence delivery decisions in other areas. Studies confirm that parents, mothers-in-law, and fathers-in-law often discourage skilled delivery services in favour of home births, driven by a belief that divine protection such as that from 'Saint Mary' ensures safe outcomes (Shiferaw & Modiba, 2020).

However, this study further identified that the absence of provision for spiritual needs within health facilities exacerbates women's reluctance to seek institutional care, underscoring the importance of integrating culturally appropriate spiritual support to improve maternal health service uptake. This study contributes new insight into potential culturally appropriate adaptations within healthcare facilities that could accommodate spiritual needs without compromising the clinical environment.

5.3.6 Impact of facility-related factors on MH services uptake

In this study, facility-related factors, including inadequate infrastructure, shortages of equipment and medicine, the offering of a limited range of care services, the unavailability or limited availability of medical staff, and insufficient accommodation of cultural practices, emerged as critical facility-based barriers to maternal health service utilisation. These challenges affect care across the antenatal, delivery, and postpartum continuum, weakening trust in health services and reducing timely visits. Addressing these gaps through sufficient resource allocation, staff deployment, and culturally sensitive adaptations can provide a foundation for enhancing service uptake and improving maternal health outcomes in the Sidama region.

5.4 Socio-cultural, community- and family-level factors affecting the use of maternal health services

The study found that the uptake of maternal health services was influenced by the support mothers received from their social networks. It sought to understand the impact of various structures situated within the mothers' social networks, including the Health Development Army (HDA), the Pregnant Women's Conference (PWC), traditional communities, and families.

5.4.1 The role of the Health Development Army in Maternal health service utilisation

The study found that members of the Health Development Army (HDA) played a pivotal role in promoting the uptake of maternal health services. The HDA organised group meetings every fifteen days to discuss maternal health issues and encourage each other to seek maternity care at health facilities. Although a range of health topics was discussed, particular emphasis was placed on maternal health. A member of the HDA highlighted their guiding slogan: "No mother should lose life when bringing new life into the world. "

These gatherings created a space where mothers could openly discuss health matters and support each other in accessing healthcare facilities. A leader of one of the HDA teams described her role in a focus group interview:

> "…I am a leader of thirty mother groups in our village. We meet every fifteen days and discuss different health issues. During the meeting, I communicate important health

> messages that I receive from health extension workers about maternal health issues, such as vaccination appointments, ANC follow-up, the importance of facility-based maternity care services, and other information related to nutrition and hygiene sanitation. The team members listen to the message respectfully. The thirty mothers in the HDA are divided into five to six group networks and meet every week to discuss different health issues" (Hamiso, 2021).

Similarly, a Health Extension Worker, underlined the HDA's role in encouraging healthcare utilisation:

> "…The introduction of the Health Development Army has helped us a lot in identifying and mobilising mothers to use health services. When mothers can't go to health facilities, we inform the leader to remind her to access maternal healthcare services at the health post" (Miirtu, 2021).

In summary, the Health Development Army (HDA) has been instrumental in increasing maternal health service utilisation through information sharing, emotional support, and consistent encouragement. Overall, the HDA has played a crucial role in enhancing maternal health service uptake. This study reveals that regular HDA meetings every fifteen days have provided structured peer support, empowering women to make independent healthcare decisions. It also highlights how Health Extension Workers (HEWs) have integrated cultural beliefs into service delivery, making maternal care more acceptable to the community. Additionally, the HDA has enhanced psychological preparedness for childbirth, an often-overlooked factor. By bridging the gap between the community and the healthcare system through culturally sensitive support, the HDA has ensured improved maternal health outcomes. Importantly, the HDA was found to have a particularly strong influence on antenatal and delivery care uptake, while its role in promoting postpartum follow-up was mentioned less frequently, suggesting a potential gap in postnatal engagement.

This modifies prior understandings by demonstrating that the structured and culturally integrated nature of HDA meetings not only disseminates health information, but also builds psychological preparedness and peer empowerment, which are critical yet underexplored facilitators of maternal health service utilisation. The study uniquely reveals how the HDA operates as a trusted peer support network, bridging traditional beliefs and formal health systems to promote autonomous decision-making among women in this setting. This expands the evidence base by illustrating that social mobilisation via the HDA fosters sustained behavioural change and enhances utilisation of maternal health services

beyond conventional outreach models (Maes et al., 2015; Ministry of Health of Ethiopia, 2016b; Ministry of Health of Ethiopia et al., 2015). Additionally, the findings confirm the HDA's role in increasing attendance for antenatal care and facility deliveries, thus reinforcing its critical position within Ethiopia's maternal health strategy (Damtew et al., 2018; Elmusharaf et al., 2015; Yitbarek et al., 2019).

5.4.2 The role of the Pregnant Women's Conference in maternal health service utilisation

Participants confirmed that the Pregnant Women's Conference (PWC) was conducted monthly near the health post. Health Extension Workers (HEWs) facilitated the meetings, and midwives from the health centre shared pregnancy-related health information to raise awareness among pregnant women about obstetric danger signs and childbirth preparedness.

The conference provided an opportunity for mothers to discuss pregnancy-related concerns with healthcare providers, learn about the benefits of delivering at a health facility, and obtain contact information for ambulance services during labour.

A participant in a focus group discussion who had attended two PWC meetings, emphasised the support the sessions provided:

> "…the forum gives an opportunity for improving awareness of the pregnant mothers found in each kebele. The health professionals use the conference to communicate important health information to all pregnant mothers who take part in the forum by saying, 'No mother should ever lose her life while bringing new life into the world. '" (Kaaymo, 2021).

The study further found that the conference fostered peer-to-peer support among pregnant women, enabling them to share experiences and discuss personal concerns. Amuuwa (2021), during an in-depth interview, described the meetings:

> "…During our monthly meeting with health extension workers at the health post, we discussed maternal health issues, available healthcare packages for mothers, and the important measures taken to save the lives of women".

Overall, the findings indicate that the PWC plays a vital role in maternal health service utilisation by raising awareness, encouraging facility-based deliveries, and offering both professional and peer support.

The impact of PWCs was evident across all stages antenatal, delivery, and postpartum care but mothers most often recalled learning about birth preparedness and labour warning signs, suggesting delivery care as the most affected component. Some mothers also described receiving reminders about postnatal visits, although this was less consistently emphasised.

In conclusion, social support is a critical factor in the utilisation of maternal health services. Families particularly partners, mothers-in-law, and elder women have a significant influence on whether mothers access facility-based care or choose home births. Meanwhile, networks such as the Health Development Army (HDA) and the Pregnant Women's Conference (PWC) play crucial roles in promoting maternal health service uptake by sharing information, offering support, and fostering a community culture that values facility-based care. Together, these social support systems are key to improving maternal health outcomes.

This theme extends earlier work by revealing how PWCs not only raise awareness but also create sustained support networks that empower pregnant women to actively engage with maternal health services and plan safer deliveries within this specific sociocultural context. In accordance with existing literature, PWCs are a key strategy in Ethiopia aimed at raising awareness among pregnant women about the importance of timely and skilled maternal care across all stages—pregnancy, childbirth, and postpartum (Ministry of Health of Ethiopia, 2021). Similarly, PWCs have enhanced mothers' knowledge, leading to greater utilisation of maternal health services (Asresie et al., 2019; Asresie & Dagnew, 2021). Matching the outcomes of previous studies, the establishment of PWCs has improved peer-to-peer support among pregnant women, with increased motivation to visit health facilities for antenatal care and greater encouragement to plan for delivery at a healthcare facility (Tigneh, 2017; Wang et al., 2016). This finding provides evidence for the differential support of each stage of maternal care, that of antenatal, delivery, and postpartum care, through community mechanisms, with delivery care receiving the most consistent focus, and postpartum care remaining relatively underemphasised. This finding elucidates the mechanisms through which social actors and community groups facilitate or hinder maternal health service utilisation in Sidama, Ethiopia

5.4.3 Timing of care-seeking and late identification of pregnant women

The study found that mothers' perceptions regarding the best time for the first antenatal care (ANC) visit and the importance of early follow-up significantly influenced the uptake of maternal health services. Despite WHO's recommendation to commence pregnancy follow-up from the third month, most mothers in the study initiated ANC visits much later, often only after the pregnancy became physically visible. Arfaaso (2021) described this during an in-depth interview:

> "…like most mothers in our village, I began visiting the health facility only once I was certain of my pregnancy, as I was afraid of a possible miscarriage if I started too early, before it became visible. I checked my pregnancy condition for the first time at five months. Because of this, I visited the health facility only three times before delivery".

Traditional beliefs also contributed to the late start of pregnancy care. Participants reported that early disclosure of pregnancy was believed to cause miscarriage or delayed delivery. For example:

> "In our culture, it's customary to maintain privacy regarding pregnancy, with discussions becoming more common around the sixth month of gestation. This reflects our cultural values of discretion and gradually opens up opportunities for public acknowledgment and support as the pregnancy advances" (Daraaro, 2021).

Furthermore, perceptions about the timing of seeking care during pregnancy and childbirth influenced mothers' access to timely health services. Some participants stated that attending a facility was seen as necessary only for women experiencing complications:

> "…in Sidama culture, elderly individuals such as husbands' mothers and neighbours believe that a labouring mother should only go to a health facility if there are complications preventing a normal birth" (Dangiite, 2021).

Conversely, some participants acknowledged the importance of professional care to prevent pregnancy-related risks:

> "…giving birth at a health facility has so many advantages: if labour takes a long time, health professionals give medication to fasten labour and delivery. Even if she can't deliver naturally, with health workers' support, they can perform an operation to save both the mother's and baby's lives" (Amuuwa, 2021).

Similarly, Beeko (2021) explained:

> "…they provide medication to expedite labour and delivery if it takes a long time. They also perform operations to deliver the baby if a natural delivery is not possible, thereby saving the lives of both the mother and the baby".

In summary, cultural norms promoting privacy often delay facility visits, reducing opportunities for early interventions. While medical assistance is available for prolonged labour, its success is limited if women seek help too late. Early engagement with maternal healthcare services is needed to prevent complications and improve outcomes. Raising awareness and fostering community support can promote timely access to these vital services. In addition to encouraging women to seek care at health facilities, educating women on how to accurately record their (last) menstrual period, is equally important, as this practical knowledge can aid in earlier pregnancy recognition and timely antenatal care initiation. This is imperative because late initiation of antenatal care (ANC) not only limits preventive measures during pregnancy but also disrupts continuity into skilled delivery and postnatal care, leading to gaps across the maternal care trajectory.

This finding adds to the existing literature by highlighting a new contextual nuance concerning how deeply embedded cultural norms and fears about early pregnancy disclosure specifically delay antenatal care initiation in this setting. It shows that, unlike broader assumptions of mere access barriers, mothers' fears of miscarriage and cultural emphasis on pregnancy privacy exert a powerful influence on postponing timely care-seeking, thereby exacerbating risks associated with late ANC attendance. Importantly, these delays often result in under-utilisation of institutional delivery services and poor postnatal follow-up, as women who enter the health system late are less likely to complete the full maternal care continuum. This insight importantly extends prior work by underscoring the critical role of socio-cultural dynamics alongside referral system weaknesses in delaying early pregnancy identification and antenatal engagement (Kifle et al., 2017; Lera et al., 2017; Seifu & Meressa, 2017; Tiruneh et al., 2022). While timely pregnancy recognition is essential for early ANC initiation (Ministry of Health of Ethiopia, 2022). Previous research in Ethiopia confirms that such norms discourage early pregnancy disclosure and delay care-seeking (Ewunetie et al., 2018; Grum & Brhane, 2018; MCSP, 2019; Stokes et al., 2008; Tola et al., 2021; Wolde et al., 2019). Yet this study reveals the specific mechanisms and lived experiences behind these patterns. Furthermore, it strengthens the evidence that improving maternal knowledge substantially improves early ANC uptake (Gebrekidan & Worku, 2017; Gidey et al., 2017; Tufa et al.,

2020). emphasising the need for targeted community education and robust referral systems tailored to local socio-cultural realities.

5.4.4 Traditional beliefs

Various traditional beliefs held by participants, together with their preference for traditional birth practices, contributed to the reduced utilisation of maternal health services.

Traditional beliefs regarding the need to protect labouring mothers from cold air, deterred women from seeking skilled care at health facilities. Participants expressed fears that exposure to cold air during labour could delay delivery. The preference to avoid cold air during labour is a valid health concern. Yet, it is also considered a traditional belief because it is rooted in long-standing cultural knowledge and practices passed down through generations. Historically, communities observed that exposure to cold seemed to delay labour or cause discomfort, leading to the idea that warmth supports a smoother, timelier delivery. This association between warmth and health is deeply embedded in cultural understandings of childbirth. Such beliefs were developed in contexts where formal medical knowledge was limited, so practical observations shaped maternal care customs. As a result, avoiding cold air during labour became a customary practice aimed at protecting the mother's wellbeing, particularly in resource-limited settings where other medical interventions were scarce. These traditional beliefs continue to influence childbirth practices today, even though they may not always be facilitated in formal healthcare facilities. As illustrated a focus group discussion participant:

> "... in our community there is a perception that exposing women to cold air is one cause of labour delays. Elder mothers tell us not to expose labouring mothers to external air, as it results in delaying labour. So, they believe that home birth is better, because putting extra clothes on a labouring mother will not expose her to cold air, creates a warm environment, and makes the mother sweat, which helps her to deliver immediately" (Daga, 2021).

A traditional birth attendant interviewed in-depth, noted:

> "... In our community, there's a belief that exposing pregnant women to cold air can delay labour. Elder mothers advise against exposing labouring mothers to external air, advocating instead for home births where extra clothes can be used to keep the mother warm, creating a comfortable environment that encourages sweating and aids prompt delivery" (Dangiite, 2021).

Additionally, some elderly mothers were reported to view pregnancy as a natural process based on their own birth experiences. Due to limited knowledge about standard healthcare practices, facility care may be perceived as unnecessary or disrespectful. A traditional birth attendant, explained:

> "... In our community, there is a tradition of respecting older mothers, so they expect that respect from healthcare providers. But the healthcare providers were not respecting them. However, if they give birth at home, we can help her with respect" (Daraaro, 2021).

Overall, cultural and traditional practices continue to influence how labouring mothers perceive their health needs. These findings suggest that traditional beliefs particularly those regarding exposure to cold air during transport, such as covering the mother with a blanket inside the ambulance and while waiting before labour play a significant role at the time of birth. It is crucial to teach standard care practices, as they shape women's decisions regarding health facility service utilisation during labour. Furthermore, the valid fear of cold exposure during transit may prevent women from using transport to health facilities, highlighting the need for transport services to consider mothers' health, and cultural preference, by keeping the sufficiently warm throughout the journey.

This finding adds to the existing literature by highlighting the specific cultural context of cold air exposure beliefs in the Sidama region, demonstrating how these perspectives critically influence maternal health service uptake during labour. Existing research acknowledges similar cultural barriers (Kea et al., 2018), but this study modifies prior understandings by linking these beliefs directly to behaviours around transport and care-seeking, emphasising the importance of culturally sensitive health education that addresses these fears. Furthermore, the physiological impact of cold exposure during labour, as discussed in prior studies (Li et al., 2018). Supports the relevance of integrating cultural practices with biomedical knowledge to enhance maternal outcomes. These findings call for locally tailored health education strategies that acknowledge and address culturally rooted fears to effectively improve maternal health service uptake.

5.4.5 Families' role in maternal health service utilisation

Partners, mothers-in-law, neighbours, and other elder women in the village played a significant part in influencing whether mothers utilised maternal health services. These individuals often made decisions based on beliefs that such services were unnecessary for normal pregnancies, a lack of knowledge regarding the importance of seeking care,

and their own previous experiences with home deliveries. This impact varied across the different stages of maternal health care.

One participant in an in-depth interview who gave birth at home, explained:

> "…During my first pregnancy, my mother-in-law took the leading role in making decisions, along with my husband. They prevented me from utilising maternal health services at the health facility. They wanted me to deliver at home, like other mothers in the village. Since I didn't have much knowledge or experience in giving birth, I couldn't make decisions by myself. When I felt pain during labour, they called a local birth attendant, and I gave birth at home" (Leellitu, 2021).

The influence of elder women was further highlighted by a traditional birth attendant who participated in an in-depth interview:

> "…Another reason is that elderly women who have experience with home births discourage younger women from giving birth in a health facility. So, if we advise them to go to the facility during labour, they tend to consult with those mothers and grandmothers who have experience with normal home births" (Dukkani, 2021).

Overall, the findings indicate that social support is crucial in shaping a pregnant or labouring mother's decision to utilise maternal health services. The support (or lack thereof) from key individuals significantly affects a mother's ability to make independent healthcare decisions.

These findings add to existing research by highlighting how the decision-making authority of elder women and close family members operates through entrenched cultural beliefs and localised knowledge systems, which significantly constrain maternal health service utilisation. This study reveals a more nuanced layer of social influence by demonstrating how elder women actively transmit traditional childbirth norms that discourage facility use, thus limiting mothers' autonomy in this context.

This influence was most pronounced in decisions related to delivery care, where facility use was actively discouraged, and the choice to give birth at home was often the subject of significant pressure from family members. Antenatal care decisions were variably affected, often depending on whether families perceived it as necessary, the mother's obstetric history in terms of the number of children that she has had, while postpartum care received the least attention, remaining largely neglected within the family discourse, with minimal family support reported for postnatal follow-up

This insight challenges prior assumptions that merely increasing knowledge is sufficient to change behaviour, underscoring the critical role of culturally embedded familial power dynamics (Izadirad et al., 2017; Poux, 2017; Shahabuddin et al., 2017). Moreover, it extends earlier work by detailing how indigenous knowledge and experiential authority held by older women reinforce home delivery preferences within Sidama communities (Aubel, 2006; Chakraborty et al., 2003; Woldemicael & Tenkorang, 2010).

5.4.6 Time to visit healthcare facilities

In addition to decision-making barriers, time constraints also hinder service utilisation. The findings indicate that the traditional assignment of household duties to women significantly impacts their ability to access a continuum of maternity care services. Participants identified themselves primarily as housewives, responsible for all household chores. The traditional belief that confines women to domestic responsibilities has increased their burden at home, limiting the time they can spend visiting health facilities. A traditional birth attendant described this experience:

> "…All of the household activities were done by the mother. She takes care of the family, like feeding them, cleaning the house, washing clothes, and many other home responsibilities. For example, there is no adequate water supply in our kebele. So, it is the responsibility of women to carry a 20-litre 'jerikan' [water container] and fetch water from a far place. This is a big burden for a pregnant mother. If possible, the government should supply clean water around the community so that women can get time to go to the health facility to maintain a healthy pregnancy." (Danchile, 2021)

Women in rural areas, burdened with domestic tasks, often lack the time or energy to travel to distant health facilities (Lerberg et al., 2014; Lowe et al., 2016). Consistent with existing research, women's heavy household workloads, particularly in rural areas, pose substantial barriers to seeking and accessing healthcare (Medhanyie et al., 2019). Thus, the heavy domestic workload significantly limits women's ability to visit health facilities for maternity care.

This study offers further evidence on how routine time poverty, shaped by traditional gender roles, acts as a persistent barrier to maternal health service utilisation**,** thereby deepening understanding of the intersection between cultural expectations and access to care in Sidama. Importantly, this study extends the existing literature by demonstrating that the barrier has stage-specific effects: women are more likely to miss antenatal and

postnatal appointments due to time constraints, whereas labour-related care is often prioritised because of its perceived urgency. This distinction underscores how time poverty disrupts routine care more than it does emergency responses, affecting long-term maternal health monitoring.

5.4.7 Impact of community- and family-related factors on MH services uptake

Community and family dynamics emerged as critical determinants of maternal health service utilisation. Traditional beliefs, cultural norms, and household responsibilities shaped the timing and continuity of service, often delaying facility visits. Support from peer networks such as the HDA and PWC, elder women, and partners, significantly affect mothers' decisions across antenatal, delivery, and postpartum care. By uncovering how social networks, cultural practices, and domestic responsibilities intersect to hinder women from seeking facility-based care in the Sidama region, my study underscores the importance of culturally sensitive community involvement and family-inclusive strategies to improve maternal health service uptake.

5.5 Interpersonal and personal factors affecting maternal health care use

The findings indicate diverse experiences with maternity healthcare services. While some respondents reported receiving essential services during their facility visits, others expressed reservations, which were often based on past encounters with health services. The findings related to interpersonal and personal factors affecting use of care are organised under seven themes: Autonomy in decision-making, Preferences for traditional birth practices, Previous experience of childbirth at home, Knowledge and information about maternal health services, Previous experience of health facility care, Perspectives of health facility care, and Perspectives of healthcare provider skill.

5.5.1 Autonomy in making decisions on healthcare

The study found that women's autonomy in making healthcare decisions significantly influences the uptake of maternal health services. Participants in the focus group discussions noted that younger women's decisions are often shaped by their social networks, particularly their husbands and mothers-in-law. In patriarchal settings, society tends to view younger women as lacking the necessary experience and knowledge about

essential pregnancy care practices, where male family members, especially husbands, hold primary decision-making power over women's healthcare. Sidaam (2021) shared her journey:

> "…During my first pregnancy, my mother-in-law took the leading role in making decisions, along with my husband. They prevented me from utilising maternal health services at a health facility. They wanted me to deliver at home, like other mothers in the village. Since I didn't have much knowledge and experience in giving birth, I couldn't make decisions by myself. When I felt pain during labour, they called a local birth attendant, and I gave birth at home."

Overall, women's autonomy in making healthcare decisions is influenced by socially ascribed roles and status, which determine their ability to make personal choices within their community context. Traditional norms often reinforce women's limited decision-making by promoting respect for elders, such as mothers-in-law, who exert significant influence over younger women's health choices, while patriarchal norms embed male dominance in decision-making authority, particularly that of husbands. This autonomy plays a crucial role in whether women seek facility-based care.

This finding adds to the existing literature by highlighting how deeply embedded social hierarchies within the Sidama context constrain women's autonomy in healthcare decision-making, particularly among younger mothers (Alemayehu & Meskele, 2017; Diriba et al., 2021; Kassahun & Zewdie, 2022). By illustrating how authority figures like mothers-in-law act as gatekeepers to care, this result offers fresh insight into the relational dynamics that shape maternal health service uptake in patriarchal rural communities (Tiruneh et al., 2017). Notably, some evidence suggests that women with multiple children may experience increased decision-making autonomy over time, which can enhance their access to services (Dunlop et al., 2018; Gabrysch & Campbell, 2009; Kebede et al., 2016). This finding also clarifies that women's autonomy affects each stage of care differently; women often gain more control over delivery decisions after their first birth, yet antenatal care decisions are frequently deferred to husbands or elder women in the household, and postpartum care is commonly deprioritised due to competing family demands or lack of spousal support.

Women with higher levels of education and greater economic independence demonstrated more autonomy in healthcare decision-making in this study. Participants who were employed or engaged in income-generating activities, such as trading or government employment, reported greater control over their healthcare choices compared

to housewives who were financially dependent on their husbands (as shown in Figure 4. 3, where the majority of participants identified as housewives). However, even among employed women, traditional norms and family hierarchies often constrained their decision-making autonomy, indicating that economic empowerment alone is insufficient to overcome deeply embedded patriarchal structures (Alemayehu & Meskele, 2017; Diriba et al., 2021).

5.5.2 Preference for traditional birth practices and attendants

Participants reported a strong preference for delivery care provided by traditional birth attendants (TBAs), as these attendants offer a greater sense of respect and familiarity. This preference was particularly observed among older mothers.

A participant in a focus group discussion with members of the Health Development Army (HDA), explained:

> "... Most of the older mothers need respectful care and want to keep their secret. However, they become ashamed of how the healthcare providers care for pregnant women and prefer to deliver at home. But when recently married mothers become pregnant, they are more interested in giving birth at a health facility because of their limited knowledge about pregnancy and fear of risks" (Baallicha, 2021).

Moreover, participants highlighted the accessibility and social familiarity of TBAs. One focus group discussion participant, noted:

> "... Actually, when we have labour pain, we call women from our kebele to support us, such as traditional birth attendants, mothers-in-law, or other close friends from our village. It is a common tradition for labouring mothers to get support from other women living nearby. For example, most mothers choose to call traditional birth attendants because they are easily available, live nearby, and are well known within the kebele. Since they share a similar lifestyle, labouring mothers are not afraid to share their secrets, and the mother can give birth easily according to our traditions" (Amuuwa, 2021).

These insights demonstrate that the influence of traditional practices is most pronounced during labour and delivery, where emotional comfort, privacy, and spiritual rituals are prioritised. While some mothers do attend antenatal care sessions, their strong attachment to traditional birthing rituals and support networks often results in avoiding

facility-based delivery. Postpartum care is similarly affected, as follow-up services are typically under-utilised when birth occurs outside the formal health system and cultural postpartum rituals take precedence.

Overall, these findings indicate that the availability, familiarity, and culturally sensitive care provided by TBAs make them the preferred choice, especially among older women. This often results in reduced utilisation of institutional maternal health services.

In summary, traditional beliefs and practices play a significant role in shaping maternal health service utilisation. Fears about exposure to cold air, cultural practices such as praying during labour, and preferences for familiar, respectful care from traditional birth attendants continue to influence mothers' decisions. This effect is particularly strong at the point of delivery, though antenatal and postnatal services are also bypassed when facility-based care is viewed as incompatible with traditional norms. These findings highlight the need to sensitively integrate traditional practices with modern healthcare to improve maternal health outcomes.

Numerous studies have also indicated that women perceive Traditional Birth Attendants (TBAs) as providers of respectful and culturally acceptable care (Ababor et al., 2019; King et al., 2015; Regassa, 2011). This result modifies prior understandings by showing that in the Sidama context, the respect and confidentiality provided by TBAs critically determine women's preference for home births over institutional deliveries. Corresponding with earlier studies, TBAs remain the preferred choice for many women in rural areas of Ethiopia, with their continued popularity primarily due to their accessibility and the cultural compatibility of their services (Bibbo & Shirazian, 2013; Gurara et al., 2020; Omosivie & Rosemary, 2020). Cultural and social traditions - such as the generational preference for home births and the perspective that health facilities are unsuitable for conducting cultural rituals - further discourage women from seeking care in institutional settings (Ababor et al., 2019). This study contributes fresh insights into how these preferences differentially affect maternal care: they deter institutional delivery most strongly, but also influence delayed or skipped antenatal visits and the neglect of postpartum care when birth occurs outside the health system. It also highlights generational differences in preferences and the social dynamics influencing these choices. The findings underscore the importance of culturally sensitive strategies that integrate respectful care within formal health services to improve maternal health outcomes.

5.5.3 Knowledge and information about maternal health services

Access to health information emerged as a key factor influencing mothers' decisions to use maternal health services across antenatal, delivery, and postpartum care. Participants noted that health education was provided through various channels, including home visits by health extension workers (HEWs), religious institutions, market areas, and community forums. These platforms helped raise awareness about the benefits of facility-based care and the risks associated with home births. As one participant explained:

> "Additionally, trained health professionals provide health education to our community on different health topics at different times. Health information is communicated in churches, market areas, and during public forums held in our kebele. They provide information about the importance of health facility births and the disadvantages of home births. As a result, most mothers understand the advantages and disadvantages of maternal health service utilisation." (Baallicha, 2021)

Participants also emphasised the importance of routine discussions about maternal health during clinic visits and community gatherings. These interactions enhanced their understanding of maternal healthcare and encouraged the uptake of services. One participant noted:

> "At the health post, health extension workers teach mothers during home visits and at religious institutions, in the market, and during coffee ceremonies. We learn about the importance of visiting health facilities to check on pregnancy health conditions, the status of my child's health, and the position of the baby, as well as receiving nutritional counselling. I have visited the health facility three times during my pregnancy and received vaccines to avoid risks." (Sallanu, 2021)

Similarly, another participant shared:

> "During our monthly meetings with health workers, we discuss maternal health issues, available healthcare packages for mothers, and important measures taken to save the lives of women. Additionally, we can get nurses' support for our pregnancy-related concerns and receive vaccinations." (Amuuwa, 2021)

These accounts demonstrate that timely and context-specific health information significantly contributes to increased knowledge, positive attitudes, and stronger intentions to seek maternal healthcare.

This analysis underlines the importance of informal, community-based platforms such as religious gatherings and coffee ceremonies as culturally resonant and trusted channels

for maternal health education. It was clear that embedding maternal health messaging into local social structures facilitates sustained engagement and learning, affirming previous research which noted that HEWs and other healthcare providers play a vital role in community education (see Kebede et al., 2016; Roy et al., 2017; Sarker et al., 2016; Shifraw et al., 2016). My findings strengthen the conclusions of Dutamo et al. (2015) that community-specific strategies result in repeated exposure to critical health information, which can promote behavioural change over time. Conversely, the findings affirm that a lack of awareness about maternal health risks and danger signs remains a significant barrier to care-seeking (Asefa et al., 2019; Wako & Kassa, 2017). By highlighting the role of culturally embedded education mechanisms, my study provides a context-specific contribution that enhances current models of maternal health promotion.

5.5.4 Previous experience of childbirth at home

Mothers with multiple childbirth experiences were often hesitant to use health facilities for subsequent deliveries. Health Extension Workers (HEWs) noted that this reluctance was commonly linked to factors such as advanced maternal age, feelings of shame, and limited awareness of the care standards available at health facilities. Many women perceived home births as safer based on their previous experiences and preferred to rely on traditional practices rather than seeking professional care. As one participant described:

> "When a woman becomes pregnant for the first time, she is concerned about giving birth at a health facility as she may be uncomfortable with exposing her body to strangers. However, when we look at mothers who have 7 or 8 children, they are not interested in giving birth at a health facility because they are ashamed of the way health workers treat them." (Miirtu, 2021)

Overall, past experiences of safe childbirth at home, particularly among older mothers, led to the perception that home delivery was sufficient. This belief, compounded by limited knowledge of available services and discomfort with facility care, contributed to lower utilisation of maternal health services.

This finding adds to the existing literature by highlighting a new contextual nuance in which repeated home birth experiences, particularly among older mothers, foster a perception of sufficiency that diminishes the perceived necessity for skilled maternal healthcare. Previous studies have shown that older mothers, who have accumulated knowledge from past pregnancies, are generally more reluctant to use health facilities than first-time

mothers, who are typically more open to seeking care (Dunlop et al., 2018; Gabrysch & Campbell, 2009; Kebede et al., 2016). Women experiencing their first pregnancy are more likely to utilise maternal health services due to fear of risks and lack of experience (Mondal et al., 2020; Tolera et al., 2020). This theme extends earlier work by revealing how indigenous knowledge systems and cultural expectations around age and experience reinforce trust in traditional practices while simultaneously deterring engagement with formal healthcare services (Ibrahima & Kelly, 2021).

5.5.5 Previous experience of health facility care

Positive past experiences with health facility care had distinct effects on their uptake of antenatal, delivery, and postpartum services strongly influenced mothers' willingness to return for future services. Respondents shared that receiving lifesaving interventions, respectful treatment, and health education encouraged trust in the healthcare system. One participant explained:

> "My reason for preferring the health centre for delivery is to prevent excessive blood loss after birth. In a health facility, services such as health education related to hygiene and sanitation, maternal health, and child health issues were provided. In addition, almost all maternal and child health services are free." (Daabbaro, 2021)

Conversely, negative experiences including disrespectful treatment, poor communication, and lack of compassionate care deterred mothers from seeking facility-based services. These encounters often left women feeling ashamed, mistrusted, or fearful of mistreatment. One participant reflected:

> "Some mothers do not want to utilise maternal services in a health facility because they have heard complaints from others about experiences such as the insertion of fingers into women's private parts, poor professional handling, and the painful episiotomy procedure during delivery. This has affected mothers' willingness to use maternal healthcare services at a health facility." (Danchile, 2021)

Another participant mentioned:

> "Some mothers do not want to utilise maternal services in a health facility, as they have seen poor care services provided to other women. As a result, they prefer home births. They mention that their previous home birth experiences were safe, and they see no reason to go to a facility for the next delivery." (Doorite, 2021)

One participant highlighted that some health professionals failed to provide appropriate support, using inappropriate language and showing little empathy for labouring mothers:

> “Some health professionals fail to adequately support labouring mothers and provide respectful care. Reports indicate that they do not communicate effectively, sometimes using inappropriate language or even insulting mothers during their visits to health facilities. This behaviour has created a negative perception among mothers, who consequently feel reluctant to seek care at these facilities.” (Luulakko, 2021)

Another participant observed:

> “From what I have seen, there are serious issues in how health professionals handle mothers during their facility visits. Frankly speaking, there is a problem with communication. They often use inappropriate language and sometimes even insult the mothers. It's important to note that many mothers who visit health facilities come from rural areas and may not always maintain perfect personal hygiene. Unfortunately, some health workers mistreat these mothers while providing care. How can pregnant women be expected to go to health facilities when they witness such abusive treatment?” (Bonja, 2021)

The lack of respectful and compassionate care often leads to negative experiences that discourage future engagement with maternal health services.

In conclusion, the study highlights that previous experiences whether at home or in health facilities significantly shape mothers' decisions regarding the use of maternal healthcare. Positive encounters with skilled care, respectful treatment, and accessible health education encourage facility-based deliveries. In contrast, negative experiences, including mistreatment or inadequate communication, undermine trust and reduce service utilisation. Ensuring consistent, dignified, and supportive care is essential for improving maternal health outcomes.

This finding extends earlier work by showing that disrespectful care is not only a deterrent to initial service use but also undermines long-term trust in the healthcare system. Whereas previous research has documented the impact of poor treatment during childbirth (Moshi et al., 2018; Moshi et al., 2020). My study adds further nuance by showing how repeated exposure to mistreatment either directly or vicariously solidifies community-level distrust. Providing respectful, woman-centred care is essential for ensuring positive pregnancy experiences and improving future service utilisation (WHO, 2016a). The accounts in this study strengthen the case that consistent, compassionate,

and culturally sensitive care is vital for addressing barriers to institutional delivery (Bante et al., 2020; Gebremichael et al., 2018). Mistreatment during childbirth continues to push women toward home births, especially in rural areas where traditional alternatives remain accessible (Ababor et al., 2019; King et al., 2015). This result modifies prior understandings by revealing how systemic disrespect in healthcare settings not only alienates individual women, but also generates enduring community narratives that deter maternal health service uptake.

5.5.6 Perspectives of healthcare provider skill

The study highlighted that community perceptions of healthcare providers' skills significantly influence maternal health service utilisation across all stages antenatal, delivery, and postpartum but are particularly consequential during labour and emergency care. In-depth interview participants noted that a perceived lack of competence among healthcare workers, particularly newly recruited staff, was a major obstacle to service uptake. Miirtu (2021), a HEW, commented:

> "…when pregnant mothers encounter serious problems, health workers at the health centre often refer them to another institution that is far from our village. When villagers witness frequent referrals, they begin to question the skills of the health workers and lose motivation to seek care at the health facility during labour. However, if there were doctors available at our health centre, women could deliver there more confidently. Therefore, it is crucial for the government to assign trained and skilled health professionals to our health centre and provide essential equipment, such as ultrasound machines, to enhance maternal service utilisation".

A mother who gave birth at a health facility shared her concern:

> "…I doubt that the newly recruited health professionals have the necessary skills and knowledge to provide appropriate care for mothers with complications" (Faayyo, 2021).

Uncertainty about healthcare staff's competence and frequent referrals undermine trust in health facilities and limit the continuity of maternity care services. These perceptions have a cumulative impact. During antenatal care, frequent referrals and limited diagnostic tools raise early concerns about provider competence, while during delivery, fear of mismanagement or inadequate response to complications discourages mothers from using institutional care. Postpartum care is also affected; mistrust in provider skills often leads women to skip follow-up visits, fearing inadequate attention or misdiagnosis. In

summary, mothers' perceptions strongly influence the utilisation across the continuum of care related to pregnancy, delivery, and postnatal services. While cultural beliefs and privacy concerns chiefly deter delivery care, the perception of healthcare providers' limited skills undermines confidence in all stages of care from delayed antenatal engagement to avoidance of institutional delivery and lack of postpartum follow up.

This result modifies prior understandings by demonstrating that community perceptions of inadequate provider skills particularly among newly recruited healthcare workers—directly erode trust and substantially discourage the utilisation of health facilities during childbirth in this context. It reveals that frequent referrals and perceived incompetence act as powerful deterrents, reinforcing preferences for home deliveries and limiting confidence in institutional care. This insight importantly advances the literature by pinpointing a critical gap in workforce capacity and community confidence that undermines maternal health service uptake, highlighting an urgent need for strategic deployment of skilled professionals and capacity building to restore trust and improve service continuity (Fisseha et al., 2017b). Similar challenges have been documented elsewhere in Ethiopia, where doubts about provider competence correlate strongly with reduced maternal service use (Kea et al., 2018). Limited clinical training and experience contribute to declining public trust in healthcare systems (Girma et al., 2020). particularly in managing complications, where perceived provider inadequacy deters facility-based care (Mahiti et al., 2015; Rieger et al., 2019). This study therefore confirms and deepens understanding that provider skill perceptions constitute a critical barrier to maternal health service utilisation, underscoring the imperative for health system strengthening to address these deficits (Eritero et al., 2022). Although individual healthcare practitioners at local facilities may be fully qualified and capable, their training dictates that patients presenting certain symptoms should be referred to a different level, leading to perceptions of a lack of skill, which may not be entirely accurate but still meaningfully shapes maternal care decisions across all phases.

5.5.7 Experiences of the privacy of care

Mothers' perspectives of privacy significantly impact their choice of delivery location, particularly affecting their decisions during the labour and delivery phase. Concerns over privacy at health facilities led some mothers to prefer home births with the assistance of trusted HEWs. One HEW explained:

> "…but not all mothers share the same positive attitude towards using health facilities during labour and delivery. Some mothers are hesitant to go to a health facility, unlike their peers. They confide in me that they feel embarrassed about the care provided there, often due to limited information on what to expect. Negative feedback from other mothers also influences their reluctance to visit health facilities, leading them to prefer seeking assistance from traditional birth attendants who have supported them in the past" (Miirtu, 2021).

A similar view was shared during a focus group discussion:

> "…not all mothers have the same attitude towards using health facilities during labour and delivery. Some choose not to go to a health facility because they feel embarrassed when healthcare staff observe their private organs during delivery. Instead, these mothers seek assistance from me because they know I can provide the support they desire, despite the efforts mentioned by my colleagues and the increasing number of institutional deliveries" (Diingamo, 2021).

These accounts highlight how privacy concerns most directly affect decisions around delivery, rather than antenatal or postnatal care. While antenatal care often involves less physical exposure and is generally better accepted, the intimate and invasive nature of childbirth intensifies women's concerns about privacy and dignity. This leads to avoidance of facility-based deliveries, even when antenatal care is accessed. Overall, a need for privacy, comfort with familiar caregivers, and certainty about the standard of care influence mothers' decisions, often resulting in a preference for home deliveries.

This theme extends earlier work by revealing the persistent, context-specific barriers created by privacy concerns during childbirth that significantly shape delivery location preferences in this region. It demonstrates that the intimate and vulnerable nature of labour deters many mothers from institutional delivery due to fears of exposure to unfamiliar healthcare providers, reinforcing a continued preference for home births assisted by trusted, culturally sensitive attendants. This finding advances the literature by highlighting how privacy and dignity concerns are not only personal but deeply embedded in community perspectives, thus requiring tailored strategies that go beyond improving facility infrastructure to addressing socio-cultural expectations around childbirth (Kea et al., 2018). Evidence from Kenya demonstrates comparable patterns, with traditional birth attendants often perceived as providing more respectful, culturally acceptable, and discreet care compared with institutional healthcare providers (Mordal et al., 2021). Similar findings have been reported in other low- and middle-income settings, including

Ghana (Ganle et al., 2015) and Nepal (Simkhada et al., 2010), highlighting the importance of respectful maternity care, trust, and sociocultural acceptability in shaping women's choices of childbirth providers. Consistent with evidence from Zambia (Sialubanje et al., 2015), this study further shows that religious beliefs and childbirth-related practices may serve as important barriers to the uptake of facility-based delivery services. These findings align with broader evidence from African contexts indicating that while women's education and economic status are key determinants of maternal healthcare utilization, sociocultural norms, beliefs, and community practices continue to strongly influence decisions regarding place of delivery (Mezmur et al., 2017; Yaya et al., 2018). Enhancing maternal health service uptake, therefore, demands culturally responsive approaches that prioritise privacy and respectful care, particularly at the point of delivery which remains the most sensitive and least accessed service along the maternal care continuum.

This section has shown how mothers' personal autonomy and perspectives influence the uptake of maternal health services, focusing on previous experience of childbirth at home and at health facilities. It is evident that despite the several limitations on their autonomy discussed above, mothers' experiences and perspectives of services have a substantial impact on their use of maternal healthcare.

5.5.8 Impact of interpersonal and individual factors on MH services uptake

Overall, the study shows that maternal health service utilisation in Sidama is significantly shaped by the degree of personal autonomy enjoyed by women, previous experiences of childbirth at home or at a health facility, knowledge and information on health facilities and maternal health, as well as interpersonal influences. Access to locally relevant health information enhances awareness and intention to use services, yet gaps persist. Women’s decision-making is constrained by patriarchal norms, elder authority, and social outlooks, while positive or negative past situations with health facilities critically affect future engagement. Preferences for traditional birth attendants, culturally embedded practices, and concerns over privacy further influence care-seeking behaviour, particularly during the delivery period. Overall, these interpersonal and personal factors interact to either assist or hinder maternal healthcare uptake, highlighting the need for community-informed, culturally sensitive, and respectful strategies to improve the uptake of facility-based care, and by extension, maternal health.

5.6 Conclusion

This study provides an in-depth exploration of community perspectives on maternal health services in the Sidama region of Ethiopia, based on qualitative data from in-depth interviews and focus group discussions. The findings demonstrate that mothers' experiences and perspectives significantly influence their use of maternal healthcare. Positive interactions with health facilities such as respectful care, effective health education, and lifesaving interventions encouraged continued service use. Conversely, negative experiences, including disrespect or perceived neglect, eroded trust and discouraged future utilisation. Many mothers who had previously given birth at home continued to prefer traditional care, shaped by favourable past experiences and limited awareness of facility-based services.

Access to maternal health services is constrained by socio-economic barriers, limited decision-making autonomy, time pressures, and transport challenges. Younger women in particular reported reduced autonomy due to family expectations. Financial constraints such as hidden costs for medication, food, and return transport also restricted service use. A lack of ambulances and reliable transport further compounded these barriers.

The quality of care was often undermined by systemic weaknesses. Health facilities frequently lacked essential infrastructure, including electricity and clean water, and faced shortages of skilled personnel and medical supplies. Weak referral systems contributed to delays in accessing advanced care, compromising timely service delivery.

Social support emerged as a key factor influencing health-seeking behaviour. While some family members favoured home births, community-based structures such as the Health Development Army (HDA) and the Pregnant Women's Conference (PWC) helped raise awareness and encouraged service use through information and emotional support.

Traditional beliefs strongly shaped decisions around maternal care. Cultural concerns such as fear of cold exposure, the desire for privacy, and the importance of prayer during labour led many women to prefer home deliveries. Trust in traditional birth attendants and reluctance to disclose pregnancy early also delayed engagement with formal care, heightening the risk of adverse outcomes. Mothers' perspectives particularly around privacy and healthcare provider skill and were central to their decisions about when and where to seek care.

In summary, this study highlights the complex interplay between systemic economic, cultural, and personal factors affecting maternal healthcare utilisation in Sidama. Addressing these challenges requires improving service quality and infrastructure, strengthening trust in providers, and incorporating culturally sensitive, community-based support. These findings contribute to a context-sensitive conceptual framework, informed by the Theory of Planned Behaviour (TPB) and the Socio-Ecological Model (SEM), to better understand and enhance maternal health service uptake in the region.

CHAPTER SIX: INTEGRATING THE THEORY OF PLANNED BEHAVIOUR (TPB) AND THE SOCIO-ECOLOGICAL MODEL (SEM) FOR A DEEPER UNDERSTANDING OF INFLUENCES ON MATERNAL HEALTH SERVICE UTILISATION

6.1 Introduction

This study on community perspectives of maternal health services in the Sidama region, Ethiopia, combined the Theory of Planned Behaviour (TPB) and the Socio-Ecological Model (SEM) to establish its theoretical framework. In this chapter, I discuss the theoretical frameworks used for this study and present the results in relation to these frameworks. Each subsection explicitly explains how the TPB and SEM were applied to understand the factors influencing maternal health service utilisation.

The TPB explains the psychological factors influencing health behaviours, particularly attitudes, subjective norms, and perceived behavioural control. These factors significantly impact maternal health service utilisation, shaping women's attitudes towards healthcare, social pressures, and their perceived ability to access services (Ajzen, 2012; Glanz et al., 2015). The TPB helps to identify the psychological drivers behind maternal healthcare decisions and supports the design of strategies to improve service uptake.

The SEM expands this perspective by considering multiple levels of influence, including system- and contextual factors, institutional, community, interpersonal, and individual factors. It acknowledges that maternal health behaviours are shaped not only by personal beliefs but also by broader environmental and societal factors, such as social norms and healthcare infrastructure (Harper et al., 2018). By incorporating these dimensions, the SEM facilitates the design of multi-level interventions.

Together, the TPB and SEM provide a comprehensive framework for understanding the complex factors that affect maternal health service utilisation. By examining both individual and structural influences, these frameworks help to identify key barriers and facilitators to improved maternal health outcomes in the Sidama region.

6.2 Theory of Planned Behaviour (TPB)

This study used the Theory of Planned Behaviour (TPB) to examine the cognitive and personal factors influencing mothers' decisions regarding the utilisation of maternal health (MH) services. The TPB highlights the role of individual attitudes, subjective norms, and perceived behavioural control in shaping health-related behaviours (Ajzen & Driver, 1991). While the TPB has proven valuable in predicting health decisions, it has been critiqued for overlooking contextual and emotional factors that also impact decision-making. The following sections elaborate on the key components of TPB, offering a deeper understanding of how each element contributes to maternal health service utilisation.

6.2.1 Attitude towards behaviour

The TPB suggests that an individual's attitude significantly influences their decision-making process regarding engaging in recommended health actions. My study supports the idea that mothers' attitudes towards MH services play a crucial role in shaping their intention to seek maternity care from a health facility with skilled healthcare providers. Mothers' attitudes are influenced by their beliefs about the perceived consequences of using or not using MH services.

This study showed a strong intention to utilise MH services among mothers who possess a thorough understanding of the importance of seeking skilled maternity care to prevent potential complications associated with pregnancy and childbirth. Specifically, the study found higher utilisation of MH services among mothers who are well-informed about the value of timely maternity care for managing potential pregnancy risks and safeguarding the lives of both mother and baby. The study highlighted that mothers' awareness of pregnancy and childbirth complications, as well as knowledge about available services, directly impacts their uptake of MH services (G. S. Ayele et al., 2019).

On the other hand, the study revealed that negative beliefs deterred mothers from seeking timely maternity care. The World Health Organization (WHO) recommends that pregnant women receive care at eight contact points, starting from the first trimester (WHO, 2018a). However, my investigation showed that the belief that discussing pregnancy before it becomes visible could lead to miscarriage discouraged mothers from accessing MH services for their initial antenatal care visit. This belief limits mothers' engagement with the continuum of MH services, particularly the utilisation of antenatal care services across the recommended eight contact points.

It is important to recognise that most miscarriages occur during the first trimester, often before any visible signs of pregnancy emerge. As such, women's preference to delay disclosure until later stages is not only culturally grounded but also a rational response to the uncertainty of early pregnancy. At the same time, early access to pregnant women is vital from a healthcare perspective, particularly in resource-limited settings. Without access to ultrasound technology, healthcare providers depend on women's recall of the date of their last menstrual period to estimate gestational age and provide timely antenatal care. This underscores a practical tension between women's lived experiences and the structural limitations faced by the health system highlighting the need for context-sensitive approaches that acknowledge and respect both realities.

This finding, consistent with the assumptions of the TPB, illustrates how mothers' beliefs about the perceived consequences of initiating pregnancy care early can shape their attitudes towards MH services, influencing their intention to use these services. Hence, positive beliefs about the importance of MH services in ensuring favourable health outcomes enhance mothers' motivation to utilise the services, while negative beliefs act as barriers to the uptake of MH services. Evidence consistently shows improved utilisation of MH services among mothers who believe the services are essential for ensuring a safe pregnancy, positive birth outcomes, and the management of risks and complications before, during, and after childbirth (Adinew & Assefa, 2017; Lera et al., 2017; Machira & Palamuleni, 2018).

In conclusion, this study extend the TPB by showing how beliefs and awareness impact maternal health service utilisation. While TPB suggests that attitudes influence intent, this study refines the theory by revealing that cultural beliefs, such as fears of miscarriage, play a significant role in shaping maternal decisions. Thus, the theory is enhanced by integrating both contextual and emotional factors, offering a more detailed understanding of how mothers' attitudes are shaped by personal knowledge and cultural beliefs.

6.2.2 Subjective norms

My study findings are consistent with the assumptions of the TPB, which emphasise the role of personal perception of social expectations in shaping one's intention to adopt a specific behaviour (Godin & Kok, 1996). Specifically, the study revealed that the uptake of MH services is influenced by social pressure on mothers, particularly from individuals within their social network, including spouses, mothers-in-law, elderly women, friends, and

peers involved in the Health Development Army (HDA) and the Pregnant Women's Club (PWC).

The findings demonstrated that mothers experience either encouragement or opposition when attempting to utilise MH services. For instance, mothers without prior childbirth experience were prevented from making their own decision to utilise MH services due to objections from their husbands and mothers-in-law. This is particularly evident in rural areas, where husbands or mothers-in-law frequently make decisions on behalf of the mothers, citing reasons such as the perceived lack of necessity for MH services during normal pregnancies, the value placed on traditional childbirth practices, the belief that young mothers lack sufficient knowledge and experience to make decisions independently, and the experiences of women who previously gave birth at home without complications, leading to doubts about the need for maternity care and pressuring mothers to deliver at home.

In the rural areas of the Sidama region, mothers were compelled to comply with the expectations of their husbands, mothers-in-law, and elders, forcing them to adhere to the same practices as their mothers and grandmothers, even when these practices contradicted their own preferences (Kea et al., 2018).

Conversely, the findings showed that social support from a mother's social network enhanced the uptake of MH services. My study demonstrated a strong intention to utilise MH services among mothers who received support from family members, peers involved in the HDA and PWC, as well as from Health Extension Workers (HEWs) and healthcare providers. HDA and PWC members assist mothers by taking care of their children during health facility visits, reminding pregnant women to visit health facilities for a continuum of MH services, and connecting them with HEWs for additional support. When mothers received encouragement and assistance from influential individuals in their social networks, they were more motivated to engage with a continuum of MH services. The HDA and PWC, as peer-to-peer networks, contributed to the increased uptake of MH services by enabling mothers to discuss pregnancy concerns openly with peers, motivate each other to utilise maternity care, and access pregnancy-related information from HEWs and healthcare providers to prepare for delivery in a health facility (Asresie et al., 2019; Assefa et al., 2019). Therefore, social support played a critical role in enhancing the uptake of MH services.

Finally, building on TPB's idea of social pressures, this study highlights the influential role of social networks in rural communities. While TPB acknowledges subjective norms, this research adds complexity by illustrating how traditional and patriarchal norms influence maternal health decisions. The study reveals that maternal health behaviours are shaped not only by direct social pressure but also by adherence to traditional practices, deepening the theory's applicability in culturally driven environments.

6.2.3 Perceived Behavioural Control (PBC)

The study highlighted that mothers living in rural areas, where health centres are unavailable, face challenges accessing health facilities due to the considerable distance between their kebele and the nearest health centre. They also experience financial constraints, making it difficult to afford transportation for repeated visits to health facilities for a continuum of antenatal care. In Ethiopia, MH services are provided free of charge at public health facilities, but evidence indicates that women with low socio-economic status lack the funds to cover direct and indirect costs associated with visiting a health facility, limiting their ability to utilise a continuum of MH services (Kazanga et al., 2019; Merga et al., 2019; Sarker et al., 2016; Cephas Sialubanje et al., 2017).

Additionally, the study found that traditional expectations, which place the responsibility of all household chores on women, have hindered their ability to allocate time to visit healthcare facilities for maternity care. The heavy burden of household chores left women physically and mentally exhausted, making it challenging to attend health facilities for multiple pregnancy care services (Lerberg et al., 2014; Lowe et al., 2016). The application of TPB concepts in this study facilitated an understanding of the various factors influencing mothers' utilisation of MH services.

Moreover, this study findings are consistent with the assumptions of the TPB, which suggest that a mother's perception of her ability to access MH services influences the uptake of these services. The study revealed that women's perceptions of their capability to visit health facilities affected their intention to seek maternity care. The research identified factors such as mothers' economic conditions, societal gender norms, and geographical barriers as influential in shaping their perceived ability to access MH services.

Overall, this section deepens TPB by exploring how external factors such as geographical, financial, and gender constraints affect mothers' perceived control over accessing

maternal health services. By considering rural-urban differences and gendered responsibilities, the study broadens the PBC construct to reflect real-world barriers more comprehensively. This expansion improves the theory's predictive power, especially in settings where socio-economic and logistical challenges are prevalent.

Each section contributes to advancing TPB by incorporating socio-cultural, emotional, and contextual factors, refining the model's relevance and applicability in maternal health.

In summary, this study deepens the Theory of Planned Behaviour (TPB) by refining its key constructs. It highlights how cultural beliefs and personal knowledge, such as fears of miscarriage, shape mothers' attitudes towards maternal health services. The findings also emphasise the significant role of social networks and traditional norms especially in rural and patriarchal contexts in influencing mothers' subjective norms and health decisions. Additionally, the study expands the Perceived Behavioural Control construct by incorporating practical barriers such as geographical distance, financial hardship, and gendered responsibilities, thereby providing a more nuanced understanding of the factors shaping maternal health behaviours. These insights enhance the TPB's relevance and predictive capacity in complex socio-economic environments.

Building on these individual and social factors, the next section explores broader socio-cultural and environmental influences through the Socio-Ecological Model, offering a multi-level perspective on maternal health service utilisation

6.2.4 Implications of study findings for TPB

The Theory of Planned Behaviour (TPB) adopts a rational-actor perspective that overlooks emotional and affective components of decision-making, despite evidence that motivation and emotional readiness are central to behaviour change (Clark & Janevic, 2014). Although Ajzen (2011) suggests that emotions may be incorporated within existing belief components, this remains theoretically ambiguous. TPB focuses primarily on short-term behavioural processes and assumes that beliefs remain stable, even though intentions may change as individuals encounter evolving personal and social circumstances (Morgan & Bachrach, 2011).

Moreover, TPB offers a framework for understanding individual intentions, but does not sufficiently account for broader contextual or environmental influences, such as developmental changes, historical experiences, and past behaviour, all of which are

known to shape attitudes, norms, and perceived behavioural control Ajzen & Fishbein (2005). The result is that TPB concentrates on individual perceptions without adequately addressing policy-related, economic, organisational, material, and cultural influences on behaviour. Since maternal health service utilisation is shaped by multiple layers of influence, TPB alone transpired to be an insufficient explanatory framework for fully meeting the aims of this study.

In the narratives of study participants, behavioural control was affected by practical barriers, including distance to health facilities, financial constraints, and gendered household responsibilities. The stories of pregnant women and mothers in Sidama, Ethiopia, demonstrated that their uptake of maternal health services was driven not only by their own knowledge and decision-making, but also by various systemic, contextual, socio-cultural, and individual factors. Women's subjective norms and decisions were strongly influenced by culturally grounded beliefs, community networks, peers, and family, highlighting the role of social support and traditional expectations in maternal health decisions. Through sharing their perspectives and lived experiences, my study participants who live in Sidama, Ethiopia, empowered me to enhance the relevance and predictive power of the Socio-Ecological Model (SEM) for understanding maternal health service uptake in rural and resource-limited settings.

6.3 The Socio-Ecological Model (SEM)

The Socio-Ecological Model (SEM) served as the guiding theoretical framework for this study, enabling a nuanced exploration of how maternal health (MH) behaviours are shaped by the interaction of individual, interpersonal, organisational, community, and policy-level influences (McLeroy et al., 1988; Sallis et al., 2008). At the personal level, it considers mothers' knowledge, beliefs, and attitudes towards MH services. The interpersonal level captures the influence of family and social networks. Organisationally, the model examines health facility availability and quality. The community level reflects shared norms and cultural traditions, while the policy level addresses national strategies and structural supports. This study employed this layered framework not only to categorise these factors but to interrogate how they intersect and are embedded in the lived realities of women in the Sidama region.

6.3.1 Policy-related factors

Policy-level influences were also critical to understanding service uptake. My study found that while the referral system intended to link pregnant women with health centres through HEWs and ambulances was designed to reduce access barriers, its implementation was often dysfunctional. Delayed identification of pregnancies, limited availability of ambulances, poor road infrastructure, and long wait times significantly reduced the system's effectiveness. These challenges not only undermined trust in formal health services but also discouraged future use. When the referral system operated as intended, women expressed appreciation; however, system breakdowns had the opposite effect, fostering frustration and avoidance. These findings reflect broader concerns highlighted in previous research, which similarly emphasises that the success of referral systems depends heavily on timely coordination and adequate resourcing (Kilpatrick et al., 2019).

While the SEM includes policy-level influences, my study suggests that it must be expanded to better capture how failures in policy implementation rather than design impact real-life outcomes and perpetuate systemic barriers to care.

In conclusion, this study demonstrates that maternal health service utilisation in Sidama is shaped by complex, interconnected factors operating across all SEM levels. At the personal level, socio-economic status and experience intersect with cultural meaning. Interpersonal dynamics reveal both support and control. Community norms influence timing and preferences. Institutional limitations erode trust, and policy challenges obstruct access. While the SEM remains a useful framework, these findings highlight the need for a more refined, context-sensitive model that fully incorporates the often overlooked practical, cultural, and emotional realities of care-seeking.

6.3.2 Institutional factors

The institutional setting of healthcare delivery emerged as a key barrier to maternal health (MH) service utilisation in this study. Participants' experiences revealed that poorly resourced facilities not only limited access but also shaped emotional responses that discouraged future use. Inadequate infrastructure, long travel distances, and frequent shortages of essential drugs and equipment significantly undermined trust in local health facilities. Many women reported paying out-of-pocket for services or forgoing care altogether due to these limitations. Power outages, lack of clean water, and unreliable testing services further eroded confidence in facility-based care. The shortage of trained

professionals and the overreliance on referrals to distant hospitals also discouraged utilisation, with participants expressing frustration at being turned away due to the absence of doctors or basic diagnostic tools. Additionally, negative experiences such as verbal abuse, neglect, and lack of privacy served as strong deterrents to seeking institutional care.

These findings affirm the SEM's recognition that organisational factors directly shape health-related behaviours (McLeroy et al., 1988). However, they also point to limitations within the SEM. While the model identifies institutional barriers, it may understate the depth of emotional and logistical burdens experienced in chronically under-resourced settings. A lack of trained professionals and overreliance on referrals to distant centres also discouraged use (Ayenew et al., 2020; Mitiku et al., 2020). Additionally, women expressed frustration at being sent elsewhere due to the absence of doctors or basic diagnostic tools. Furthermore, negative experiences such as verbal abuse, neglect, or lack of privacy acted as strong deterrents (Yosef et al., 2020). These institutional failures highlight a gap in the SEM, which could benefit from greater emphasis on the lived realities of service users navigating fragile health systems.

6.3.3 Community-level factors

This study highlights the depth of community influence on maternal health (MH) service uptake, particularly through cultural beliefs and practices. Consistent with past studies (Abel, 2008; Kifle et al., 2017; Mehretie Adinew & Abera Assefa, 2017; Onta et al., 2014; Sarker et al., 2016), home births are preferred in the Sidama region due to beliefs about cold air during labour, the importance of prayer, and the perception that health facilities are only necessary when complications arise. This study found that traditional practices such as keeping pregnancies secret to avoid miscarriage and relying on TBAs for their perceived respectfulness remain highly influential in maternal health decisions.

Furthermore, my findings revealed that some participants avoided health facilities because communal prayers during labour could not be accommodated an important cultural element in Sidama. This finding reflects practices that are not only specific to Sidama but also observed elsewhere in Ethiopia (Kea et al., 2023). My study also identified that women's domestic responsibilities often conflicted with antenatal appointments, further limiting their ability to access services.

This study found that women's autonomy increased with age and experience, suggesting that community structures assign greater decision-making power to older women an observation supported by previous research (Alemayehu & Meskele, 2017; Anderson & Eswaran, 2009). These insights indicate that while the SEM acknowledges community norms, it requires refinement to account for deeply rooted cultural beliefs that are not easily shifted by awareness campaigns alone.

6.3.4 Interpersonal factors

The role of interpersonal dynamics emerged strongly in my study, affirming the SEM's attention to family and social relationships. This finding shows that husbands, mothers-in-law, and senior women often exercised significant control over maternal healthcare decisions. In some households, pregnancy and childbirth were viewed as natural events that did not require medical attention unless complications arose. Many participants expressed a preference for traditional birth attendants (TBAs), who were trusted for aligning with local values and rituals.

Previous research supports these patterns. For instance, TBAs have been found to gain trust by adhering to cultural norms and traditional practices (Ganle et al., 2015). However, my study also revealed that interpersonal relationships were not uniformly restrictive. Supportive family members and peers were critical in encouraging service use. Women who received emotional and practical assistance from their families such as help with transport or childcare were more likely to seek care.

This echoes earlier studies, which highlight the positive roles of community-based groups like the Health Development Army (HDA) and Pregnant Women's Conferences (PWCs). These groups not only provide information and encouragement but also serve as crucial links between mothers and Health Extension Workers (Datiko et al., 2019; Mamo et al., 2019). Furthermore, mothers who received emotional and practical support from their families were more likely to seek care (Mohammed et al., 2019).

These findings reinforce that interpersonal influences are contextually complex and deeply embedded in local gender norms and expectations. This study contributes to the SEM by demonstrating how interpersonal control and support operate alongside institutional structures, ultimately shaping women's autonomy and their ability to make informed healthcare decisions.

6.3.5 Personal factors

This study found that individual factors such as age, education, parity, and socio-economic status meaningfully shaped MH service use. Older women were more likely to rely on home births and traditional birth attendants (TBAs), citing familiarity and cultural respect. These women often saw institutional care as unnecessary, especially when previous births had been uncomplicated (Phua & Loh, 2008).

By contrast, younger mothers, often more educated and influenced by urban lifestyles, demonstrated greater trust in biomedical care and used health services more frequently (Naser et al., 2012). Socio-economic limitations especially among women dependent on their husbands for financial support emerged as a major barrier. Transport costs and distance to facilities were commonly cited, particularly in rural areas. Multiparous mothers also tended to avoid facilities, assuming prior experience made professional assistance redundant.

Perspectives of the quality of care further influenced behaviour. Some mothers changed their views after receiving information from health workers or hearing about peers' experiences. Others were discouraged by poor treatment or lack of privacy. Existing studies have shown that individual behaviours are shaped not only by characteristics like age and income, but by how these intersect with deeper social meanings (Moshi et al., 2018; Moshi et al., 2020). This study shows the importance of emotional, cultural, and informational dimensions that shape individual decision-making beyond what is typically captured under personal factors in the SEM.

Overall, this study builds upon the Theory of Planned Behaviour (TPB) and the Socio-Ecological Model (SEM) by aligning with their core definitions while refining their constructs based on empirical findings. The TPB, as originally defined by Ajzen (1985) emphasises individual-level determinants of behaviour namely attitudes, subjective norms, and perceived behavioural control. My study retains these foundational constructs but extends their scope to incorporate context-specific and culturally embedded influences. For example, mothers' fear of miscarriage due to early pregnancy disclosure, traditional beliefs about childbirth, and the burden of gendered responsibilities emerged as central factors shaping maternal attitudes and intentions dimensions not fully captured in the original TPB framework. These refinements do not represent a deviation, but rather a context-driven extension grounded in the lived experiences of women in Sidama.

The SEM is preserved in its original structure, which encompasses individual, interpersonal, organisational, community, and policy-level influences (McLeroy et al., 1988). However, this study adopts a modified version of the model developed by Lee et al. (2017), which was originally applied to explore agricultural safety risks affecting children in rural settings. This adaptation illustrates how individuals with limited autonomy such as children, or in this case, rural mothers, are embedded within interconnected systems of relational and structural constraints. The model proposed by (Lee et al., 2017), was particularly relevant to my study context, as it demonstrates the importance of addressing barriers across multiple levels simultaneously. In low-resource rural areas, maternal health behaviours are shaped by weak health system linkages, infrastructural gaps, and entrenched gender norms, over and above personal factors and preferences.

Accordingly, my study refines the SEM to emphasise how these levels interact in practice in the maternal health services sector. For example, how the absence of functioning referral systems at the policy level intersects with negative provider behaviours at the institutional level to discourage maternal service uptake. The framework developed here remains grounded in the original definitions of both TPB and SEM, while enhancing their contextual applicability through data-driven insights. These theoretical refinements contribute a more locally responsive understanding of maternal health service utilisation in Sidama and similar rural contexts.

6.4 Articulating an integrated, context-sensitive conceptual framework

Refining existing theories by incorporating mothers' lived experiences enhances their contextual relevance and helps uncover determinants of maternal health service uptake that may be overlooked in conventional models. Drawing on the key findings of my study, I propose a context-sensitive conceptual framework that integrates the Theory of Planned Behaviour (TPB) and the Socio-Ecological Model (SEM). This framework embeds socio-cultural, emotional, institutional, and environmental influences within both theoretical perspectives, offering a more nuanced and locally grounded understanding of maternal health behaviours in the Ethiopian context.

This conceptual framework illustrates how multiple, interconnected domains shape maternal health service utilisation in the Sidama region of Ethiopia. It brings together the Theory of Planned Behaviour and the Socio-Ecological Model to show how individual decision-making is embedded within broader social, cultural, institutional, and policy

environments. At the policy level, various factors constrain access and undermine trust. Institutional factors and experiences further shape behaviour and perceptions. Community-level influences, including cultural norms and beliefs create expectations that shape women's preferences. Interpersonal relationships either support or restrict women's autonomy in seeking care. At the individual level, women's subjectivity and personal characteristics interact with practical barriers.

Together, these domains highlight that maternal health behaviours emerge from a complex interplay between structural, cultural, relational, and personal factors. The framework underscores the need for multi-level, culturally responsive interventions, as change in any single domain is unlikely to be sufficient to improve maternal health outcomes.

The framework is structured around five empirically derived domains: (1) Policy Level Factors, covering systemic barriers, referral mechanisms, and health policy environments; (2) Institutional and Organisational Factors, such as healthcare infrastructure, provider trust, and quality of care; (3) Community Level Factors, including cultural beliefs, community norms, and local health initiatives; (4) Interpersonal Factors, such as the influence of family members and the dynamics of social support or control; and (5) Individual Level Factors, including women's attitudes, subjective norms, perceived behavioural control, and personal characteristics.

These domains are mapped onto the TPB and SEM to illustrate how multi-level influences intersect with individual decision-making processes. This framework strengthens theoretical understanding while offering practical guidance for the development of contextually relevant interventions and policies aimed at improving maternal health service uptake in Sidama and similar low-resource settings.

Figure 6.1, below presents the new Integrated Socio-Cultural and Access Framework for Maternal Health Service Utilisation (ISAF-MHU). Based on the theory of planned behaviour and a version of the socio-ecological model, this novel conceptual framework can be used for researching the social contexts of maternal healthcare in different nations. (Lee et al., 2017).

Policy-Level
National and regional health policies and regulations govern the delivery of maternal health services. These include maternal referral systems, ambulance access, investments in health infrastructure, and coordination of service delivery. However, weak implementation of these policies combined with structural barriers such as limited transportation, inadequate funding, and shortages in the healthcare workforce undermines public trust and restricts women's ability to access timely and quality maternal care.

Institutional/Organisational-Level
Healthcare facility-level conditions and operational systems shape women's experiences of maternal care. These include the availability of trained healthcare staff, essential medical supplies, infrastructure adequacy, and the functionality of referral mechanisms. The quality and availability of services along with women's trust in healthcare providers are critical to service uptake. Negative experiences such as verbal abuse, neglect, poor responsiveness, or lack of privacy during care can severely undermine women's confidence in institutional services and discourage future use.

Community-Level
Norms, values, and cultural practices shared within communities strongly influence maternal health behaviours. Examples include preferences for home births, secrecy during pregnancy, the influence of traditional birth attendants, and social expectations surrounding domestic roles. Community health initiatives such as the Health Development Army play a role in promoting or discouraging maternal health service use. These culturally embedded norms and community dynamics often restrict service use, even when biomedical care is available.

Interpersonal-Level
Influences from individuals within a woman's immediate social network such as husbands, mothers-in-law, family members, peers, and community elders shape maternal health decisions. Decision-making often involves these key figures, with traditional birth attendants sometimes trusted over formal providers. The dynamics of social support and control within these relationships significantly affect women's ability to seek and use maternal health services.

Individual-Level
Personal attributes and perceptions that shape health-seeking behaviour. These include age, education, economic status, number of children, and prior experiences with care. Women's attitudes towards maternal health services whether positive or negative and subjective norms, such as social pressures and family expectations, strongly influence their choices. Perceived behavioural control, reflected in women's sense of agency and ability to act on their preferences, varies across different stages of care. Women often gain more autonomy over delivery decisions after their first birth, while antenatal care is frequently influenced by husbands or elder women, and postpartum care is often deprioritised due to competing family demands or lack of spousal support. Women with greater autonomy and resources are more likely to prefer biomedical services, while those facing financial or transport constraints tend to rely on traditional practices.

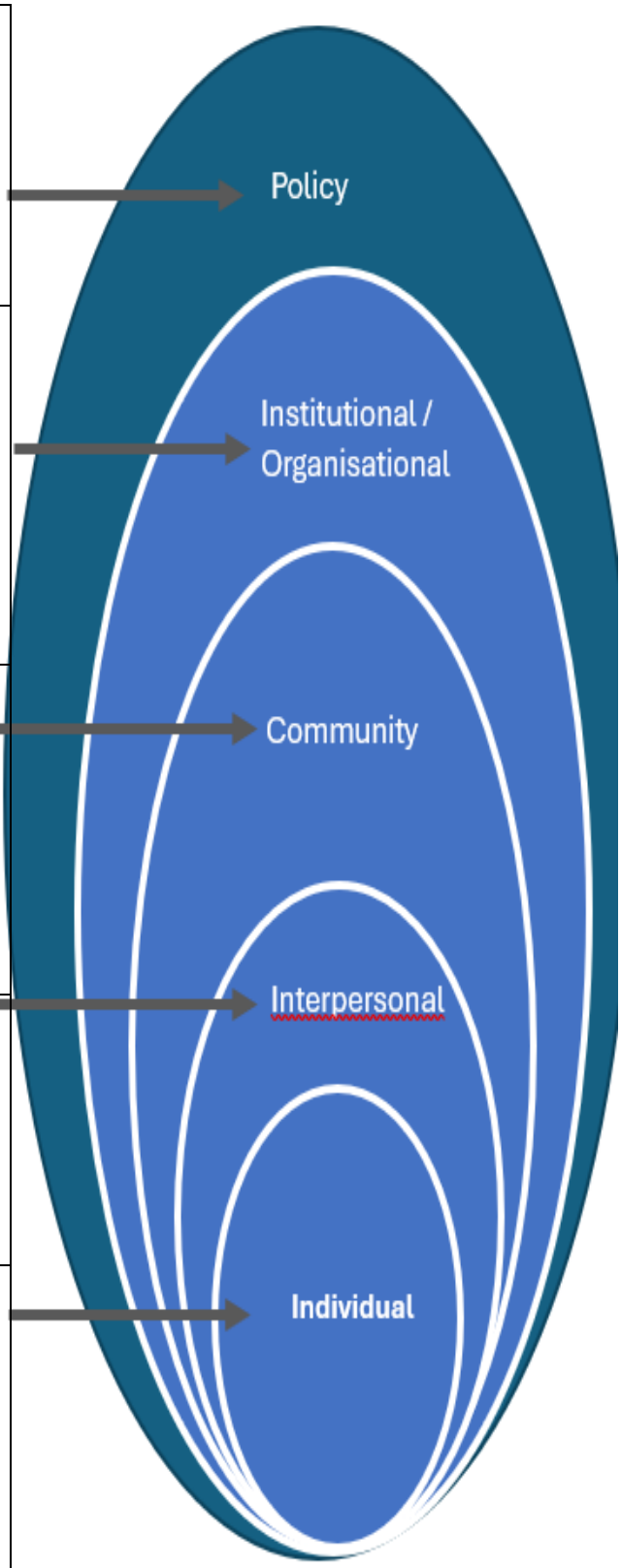

Figure 6.1: Integrated Socio-Cultural and Access Framework for Maternal Health Service Utilisation (ISAF-MHU)

6.5 Explanation of the integrated conceptual framework diagram

The conceptual framework diagram presents the key empirically derived domains and their interrelated influences on maternal health service utilisation in the Sidama region of Ethiopia. It reflects the complexity of women's lived experiences, illustrating how individual, interpersonal, community, institutional, and policy-level factors interact to shape maternal health-seeking behaviours. By combining the constructs of the Theory of Planned Behaviour (TPB) and the multi-level perspectives of the Socio-Ecological Model (SEM), the framework captures both personal decision-making processes and the broader social and structural environment in which those decisions are made.

6.5.1 Policy-level factors

The policy-level domain addresses systemic and structural determinants of maternal health service use. Weak referral systems, a shortage of trained staff, and limited financial resources, create significant barriers, particularly for rural women. Inadequate transportation and inconsistent implementation of health policies further exacerbate inequalities. These factors do not operate in isolation but interact with all other domains undermining trust, reinforcing socio-cultural constraints, and limiting women's perceived and actual ability to access services.

Together, these five domains form an integrated, empirically grounded framework that reflects the real-world complexities of maternal health service utilisation. The diagram demonstrates the reciprocal relationships between domains, underscoring the need for multi-sectoral, culturally informed, and community-engaged strategies. Interventions that target only one aspect—such as improving facility infrastructure without addressing social norms—are unlikely to succeed. The framework offers a holistic approach for researchers, policymakers, and practitioners seeking to improve maternal health outcomes in Sidama and similar settings.

6.5.2 Institutional-organisational factors

The institutional domain focuses on the accessibility, quality, and perceived reliability of maternal health services. Infrastructure challenges, such as distance to facilities and lack of transport, are compounded by concerns about the competence and attitude of healthcare providers. In Sidama, mistrust often stems from experiences with undertrained

or unfamiliar staff, privacy violations, and poor treatment. These experiences discourage women from seeking institutional care and reinforce community reliance on traditional methods. Respectful, culturally sensitive care and improved facility conditions are essential to restoring trust and encouraging service uptake.

6.5.3 Community-level factors

Community beliefs and collective behaviours, including traditional practices and local perceptions of maternal care, significantly influence health-seeking. In Sidama, norms that favour home births, fears related to biomedical interventions, and longstanding trust in traditional birth attendants shape women's preferences. Community initiatives such as the Health Development Army and Pregnant Women's Conferences aim to counteract harmful norms and promote facility-based care. However, their effectiveness is mediated by the degree to which they engage with and respect local traditions while introducing evidence-based practices.

6.5.4 Interpersonal factors

Interpersonal influences, particularly from husbands, mothers-in-law, and peers, play a critical role in maternal health behaviour. In many households, women's healthcare decisions are heavily mediated by family members, who may either support or constrain their autonomy. Supportive partners can facilitate access to services, while controlling or dismissive attitudes may hinder it. The dynamic between social support and social control is central in determining whether women feel empowered or restricted in their decision-making, and this domain is closely tied to community norms and gender expectations.

6.5.5 Individual-level Factors

At the centre of the framework are individual-level factors derived from the TPB, which highlight women's attitudes, subjective norms, perceived behavioural control, and personal characteristics. In Sidama, attitudes towards maternal health services range from positive perceptions of skilled care to mistrust and fear based on previous experiences. Subjective norms such as family expectations and community pressure shape whether women feel supported or discouraged from seeking care. Behavioural control is influenced by logistical realities such as transportation and finances, a woman's autonomy, and her

confidence in accessing services. These elements intersect with socio-economic status, age, and level of education, shaping how women perceive and navigate maternal health.

6.6 Conclusion

This study explored maternal health service utilisation in the Sidama region of Ethiopia by drawing on the Theory of Planned Behaviour (TPB) and the Socio-Ecological Model (SEM). Individual-level factors such as women's attitudes towards maternal care, perceived behavioural control, subjective norms, and socio-demographic characteristics played a significant role in shaping health-seeking behaviour. These factors were closely influenced by interpersonal relationships, especially the roles of husbands, mothers-in-law, and peers, which often created both supportive and restrictive environments. Community-level influences, including traditional beliefs, preferences for home births, and initiatives like the Health Development Army, further shaped maternal health decisions. Institutional and policy-level factors, such as referral systems, transport barriers, service quality, and provider attitudes, also emerged as key determinants of whether and how women accessed care.

Although TPB and SEM provided useful frameworks for examining these dynamics, the study identified key limitations in their explanatory capacity. TPB did not adequately address the powerful role of cultural traditions and household decision-making hierarchies, while SEM lacked attention to emotional and perceptual aspects of care, including fear of mistreatment and trust in providers. These gaps limited the ability of either model to fully capture the complexity of maternal health decision-making in this context. As such, the findings point to the need for a more nuanced approach that acknowledges the interplay between psychological, relational, cultural, and structural influences.

A key contribution of this study lies in the development of a context-sensitive conceptual framework that integrates and adapts elements of both TPB and SEM. This framework is grounded in the lived experiences of women in Sidama and reflects the interconnected emotional, cultural, interpersonal, and systemic factors that shape maternal health behaviours. By bridging theoretical and community-based insights, the study advances current understanding and provides a more holistic foundation for designing effective, culturally responsive policies and interventions. This contribution not only deepens academic knowledge but also has relevance for policy and practice that can improve maternal health outcomes in Sidama and similar low-resource settings.

CHAPTER SEVEN: CONCLUSION AND RECOMMENDATIONS

7.1 Introduction

This section presents a summary of the study's findings, aligned with the research objectives that were designed to explore the factors influencing maternal health service utilisation in the Sidama region of Ethiopia. The study draws upon the lived experiences of mothers, highlighting the complex interplay of systemic and health facility-related challenges, socio-cultural norms and relationships, and individual perspectives that influence maternal healthcare decisions. By critically reflecting on how these real-world experiences correspond with existing theoretical frameworks, the findings are structured around five main research objectives, offering a clear and organised account of the determinants affecting maternal health service uptake. Additionally, this section puts forward key recommendations aimed at addressing the identified challenges and suggests important areas for future research to improve maternal healthcare services in this and similar settings.

7.2 Overarching research findings

The findings of this study are structured around the research objectives, which were developed to explore the factors shaping maternal health service utilisation in the Sidama region of Ethiopia. Drawing from the lived experiences of mothers, the study illustrates how health system constraints, socio-cultural beliefs, and individual perspectives influence decisions related to maternal care. It also critically evaluates how well existing theoretical frameworks correspond with these contextual realities. The following sections present the main findings, organised according to the study's five research objectives.

7.2.1 Contextual challenges faced by mothers in accessing facility-based maternal care

Transport barriers and dysfunctional referral systems limit mothers' access to facility-based maternal health care. Many communities face a lack of reliable transportation, limited ambulance availability, and high travel costs, while referral pathways often fail to

ensure timely care. This situation creates delays in receiving adequate care, particularly during emergencies. Transportation challenges, including limited ambulance availability and a lack of return travel, were exacerbated by hidden costs for food and medication.

7.2.2 Health facility-related factors influencing the utilisation of maternal health services

Health system limitations presented significant barriers to maternal healthcare utilisation. Mothers' experiences revealed both encouraging and discouraging factors in the use of maternal health services. Positive experiences, such as effective emergency care or clear health education, motivated continued use of health facilities. Conversely, negative experiences, particularly those involving neglect or disrespect by health workers, served as strong deterrents. Mothers who gave birth at home often reported satisfaction with these experiences, especially when they had limited awareness of the standards of care available in health facilities.

7.2.3 Influence of sociocultural norms and relationships on maternal healthcare utilisation

Sociocultural norms remained powerful determinants of maternal health decisions. Limited autonomy was experienced by younger women whose healthcare decisions were often made by husbands or elder women. Influential family members, particularly husbands and elder women, often favoured home deliveries over facility based care. Women also experienced time constraints due to domestic responsibilities. Intra-household power dynamics articulated with heavy domestic workloads, to detract from women’s autonomy, significantly reducing service use.

Cultural beliefs, such as the need to avoid cold air during labour, uphold modesty, or perform religious rituals at home, reinforced the preference for home births. Cultural fears, particularly around cold exposure during labour and travel, further reduced the likelihood of facility-based deliveries. These findings illustrate how socio-cultural and constraints intersected with household circumstances to shape access to maternal care.

Community structures like the Health Development Army (HDA) and Pregnant Women’s Conferences (PWCs), however, played a positive role by offering health education, emotional support, and promoting institutional deliveries. These grassroots initiatives

proved vital in reconciling traditional practices with modern maternal healthcare services. The burden of domestic labour, including household chores and caregiving tasks, further limited women's time and capacity to seek facility-based care.

This study uniquely elucidates how entrenched cultural practices intersect with healthcare delivery challenges to hinder early disclosure and follow-up, offering a more nuanced understanding that can inform culturally sensitive interventions.

7.2.4 Mothers' perspectives of the maternal healthcare services available within their communities

Mothers in the Sidama region expressed diverse perspectives of maternal healthcare services, shaped by cultural beliefs, levels of trust in healthcare professionals, and previous experiences. Some delayed seeking care due to fears that early disclosure of pregnancy might result in miscarriage. This reflected deeply embedded cultural concerns. Issues around privacy and discomfort with unfamiliar health professionals also discouraged the use of facility based services. A notable lack of trust in newly assigned or inexperienced staff further reinforced preferences for home births, particularly when traditional birth attendants were accessible and perceived as more culturally attuned. These findings highlight the need for interventions that foster trust, safeguard privacy, and promote culturally sensitive care to improve service uptake.

7.2.5 Refining theoretical perspectives through lived experiences of maternal health service utilisation

The lived experiences of mothers offered valuable insights into the relevance of existing health seeking behaviour theories. The Theory of Planned Behaviour (TPB), which focuses on attitudes, subjective norms, and perceived behavioural control, provides a useful lens for understanding intention and action. However, it does not adequately capture the cultural and structural barriers specific to the Sidama context. Similarly, while the Socio Ecological Model (SEM) recognises the influence of multiple levels, it tends to overlook the nuanced and dynamic role of traditional beliefs and infrastructural deficiencies. The study's findings suggest the need for a more context sensitive framework that integrates social norms, institutional limitations, and mothers' lived experiences. Such a model would offer a more accurate representation of maternal health service utilisation

in this region and inform culturally appropriate interventions. The ISAF-MHU framework is presented as a novel theoretical contribution.

7.2.6 How have community experiences and perspectives of maternal health care in the Sidama region of Ethiopia informed broader understandings of decision-making regarding the use of health facility-based care during and after pregnancy and childbirth?

Community experiences and perspectives in Sidama reveal that maternal health service utilisation is shaped by a complex interplay of institutional, social, and individual factors. At the policy and institutional level, structural constraints such as limited referral systems, inadequate transport, inconsistent availability of health services, and perceived gaps in privacy, dignity, or cultural sensitivity directly influence which care options women consider viable. These findings demonstrate that the mere presence of facility-based services does not guarantee utilisation; mothers continuously evaluate the feasibility, accessibility, and appropriateness of care within the health system.

At the community level, trust, familiarity, and culturally sensitive support strongly influenced maternal health decisions. Health extension workers, traditional birth attendants, the Health Development Army, and Pregnant Women's Conferences played pivotal roles in guiding mothers' choices. Where formal facilities failed to meet expectations, women often turned to community-based care perceived as safer and socially acceptable. These narratives show that relational trust can either bridge or widen the gap between traditional practices and biomedical services, shaping whether mothers feel encouraged, constrained, or confident in seeking facility-based care.

Individual-level decision-making reflected dynamic evaluations across the maternal continuum. Antenatal care was selectively accessed, delivery services were often sought only in emergencies, and postpartum care was frequently neglected. Women weighed practical constraints such as transport, domestic responsibilities, hidden costs, and cultural stigma around early pregnancy disclosure alongside social expectations and cultural norms. Maternal health-seeking is therefore a contextually negotiated process rather than a simple choice between home and facility-based care.

Taken together, these insights deepen our understanding of the viable options and choices available to pregnant women and mothers in Sidama. They reveal that maternal health service utilisation is relational, context-sensitive, and dynamically negotiated across the maternal continuum. This study extends existing theoretical perspectives by integrating individual intentions, social influences, and systemic constraints into a framework that more accurately reflects lived experiences. The findings underscore the importance of culturally responsive, socially grounded interventions that support mothers in navigating multiple care options within rural Ethiopian realities.

7.3 Implications for policy and practice

The implications for maternal health policy and practice presented below respond directly to the barriers and enablers identified in my study and are intended to improve maternal healthcare service utilisation in the Sidama region through community-level, health system, and culturally sensitive interventions.

7.3.1 Accessibility of services

In Sidama, maternal health service utilisation was deterred by a combination of weak referral, transport limitations and in particular the absence of return transport, and hidden costs for food and medications. Awareness of these difficulties significantly discouraged uptake, as mothers anticipated financial and logistical burdens before seeking care. Therefore, policy and practical recommendations should prioritise strengthening the referral system by improving coordination between health facilities, health extension workers, and traditional birth attendants, and establishing clear protocols for timely patient transfers. Strengthening communication and monitoring mechanisms within the referral chain is also critical to reduce delays.

Policy efforts should prioritise strengthening maternal transport systems, including the provision of safe, dignified, and warm travel arrangements during labour, by providing items such as blankets or heated vehicles. Guaranteeing return transport for mothers would further encourage timely and sustained service utilisation. Alongside this, a reduction of indirect costs linked to food and medication is needed. Together, these

measures would enhance equitable, acceptable, and continuous access to facility-based maternal care across the Sidama region.

7.3.2 Quality of care

Concerns over poor infrastructure, shortages of skilled staff, and a lack of essential equipment contributed to negative perspectives of care quality. Women expressed mistrust towards inexperienced or newly assigned staff and reported discomfort when assisted by male providers. These issues reduced satisfaction with facility-based care and encouraged reliance on home births, especially when traditional providers were perceived as more attentive or respectful.

Improving the quality of maternal healthcare requires investment in health facility infrastructure, especially reliable access to water and electricity. It is also essential to recruit and retain qualified female healthcare workers and ensure all staff receive regular professional development to maintain high standards of care. Equipping health centres with essential supplies and strengthening referral mechanisms would support timely emergency responses and advanced care, thereby increasing public trust in facility-based services.

To accommodate cultural expectations and alleviate or shift social influences, facility environments should be adapted to accommodate prayer spaces and warm delivery rooms that reflect local preferences. Traditional birth attendants (TBAs), who are valued for their experience and close relationships with mothers, but are not formally part of the government's community maternal health groups (Gurara et al., 2020; Omosivie & Rosemary, 2020), could be offered an opportunity to maintain their own respected status in the community. With appropriate training and health education on the importance of skilled care, TBAs could be integrated into the formal referral system as voluntary community health promoters, and could then refer mothers for antenatal care, early identification of danger signs, facility-based delivery, and postnatal follow-up visits. Should this succeed, traditional birth attendants could be formally integrated into the healthcare system through training in safe delivery and referral procedures, allowing them to retain their status and act as trusted community health promoters while bridging the gap between households and health facilities. Collectively, these actions would help restore confidence in formal maternal healthcare and reduce reliance on home births.

7.3.3 Socio-cultural and community-level factors affecting service utilisation

Maternal health service use was strongly shaped by the influence of close family members, particularly husbands, mothers-in-law, and elder women. Their approval or disapproval often determined service access. In addition to these interpersonal influences, cultural norms such as fear of cold exposure during labour, the desire to perform religious rituals at home, and concerns around modesty favoured home births. Traditional Birth Attendants (TBAs) were deeply trusted and viewed as more culturally aligned and emotionally supportive than facility-based providers. Nevertheless, community-led initiatives such as the Health Development Army (HDA) and Pregnant Women's Conferences (PWCs) played a key role in promoting institutional care and disseminating essential health information.

Education campaigns must be culturally sensitive, respectfully challenging harmful norms while reinforcing the importance of skilled maternal care. Greater involvement of influential family members such as husbands and elder women within health awareness and behaviour change programmes could strengthen interpersonal support for maternal health-seeking behaviours. Encouraging shared decision-making across families, alongside support for maternal autonomy, will further promote timely utilisation of services. Expanding grassroots platforms like the Health Development Army and Pregnant Women's Conferences, particularly in remote areas, would promote community-level mobilisation.

7.3.4 Mothers' knowledge and perspectives of maternal healthcare

Mothers' own perspectives played a crucial role in determining healthcare utilisation. Concerns about privacy during labour, fear of early pregnancy disclosure, and perceived incompetence of some healthcare workers deterred women from seeking care. Delays in recognising pregnancy linked to limited knowledge of menstrual tracking and frequent referrals also diminished trust in facilities and reinforced preferences for home births.

Enhancing service quality and mothers' trust in the healthcare system requires improvements in privacy within maternity wards, including designated consultation areas and standard protocols to protect privacy. Ongoing staff supervision and targeted training

particularly for less experienced health workers should be strengthened to ensure respectful and competent care.

Women demonstrated a clear awareness of shortcomings in health facilities, including concerns about privacy during labour, limited provider skills, and occasional disrespectful treatment, which shaped their reluctance to use institutional services. At the same time, many participants valued home-based deliveries, particularly when previous births at home had been safe and culturally comfortable, reinforcing a preference for familiar practices. Despite this experiential knowledge, gaps remained in understanding the specific risks associated with home births and the optimal timing for antenatal visits or facility-based delivery. Targeted health education and community-based interventions are needed to bridge these knowledge gaps and support informed decision-making.

Limited understanding of the benefits of skilled care and the risks of home births contributed to underutilisation of services. Familiarity with home-based delivery, often reinforced by negative past experiences in health facilities, increased reluctance to seek professional assistance. Many women also lacked basic information about when and why to attend antenatal care or deliver in a facility.

Outreach programmes must also support women in recognising early pregnancy, tracking their menstrual cycles, and preparing for childbirth in advance. All proposed interventions should be accompanied by continuous monitoring and evaluation to ensure effectiveness and guide improvements in maternal health outcomes in the Sidama region.

7.3.5 Implications of community perspectives of maternal care for policy and practice

The insights from mothers in the Sidama region provide a valuable foundation for shaping maternal health policy and practice. By highlighting the influence of accessibility barriers, service quality, socio-cultural norms, and maternal knowledge on healthcare utilisation, my study identifies practical areas for intervention. Strengthening referral and transport systems, improving facility infrastructure and staff competence, integrating trusted Traditional Birth Attendants into formal health strategies, and promoting culturally sensitive community education can collectively enhance trust in services and encourage timely, facility-based care. These evidence-based recommendations offer policymakers

and practitioners actionable guidance to improve maternal health outcomes and support sustainable, community-aligned improvements in service delivery.

7.4 Limitations of the Study

While this study provides valuable insights into maternal health service utilisation in the Sidama region, several limitations should be acknowledged.

First, the study was conducted in a single district (Boricha) within the Sidama Region, which may limit the generalisability of findings to other districts or regions with different socio-cultural and infrastructural contexts.

Second, the qualitative nature of the study, while providing rich and nuanced data, does not allow for statistical generalisation. The findings are context-specific and reflect the lived experiences of participants in this particular setting.

Third, the study relied on self-reported data from participants, which may be subject to recall bias and social desirability bias, particularly regarding sensitive topics such as home births and traditional practices. Participants may have provided responses they perceived as socially acceptable rather than their actual experiences.

Fourth, the study was conducted during the COVID-19 pandemic, which may have influenced healthcare-seeking behaviours and access to services. The pandemic restrictions and fear of infection may have affected both the availability of services and women's willingness to seek care.

Fifth, as the researcher is an insider to the community (having worked in the regional health bureau), there is a potential for positionality bias, although measures were taken to mitigate this through reflexivity, use of trained data collectors, and triangulation of data sources.

Despite these limitations, the study provides important insights that can inform policy and practice in similar low-resource settings. The rich qualitative data offers deep understanding of the complex factors influencing maternal health service utilisation in Sidama.

7.5 Recommendations for further research

Building on the findings and practical recommendations, several areas require further research to inform sustainable, context-sensitive maternal healthcare strategies in Sidama and similar settings:

a) Healthcare Accessibility and Transport Solutions: Assess the impact of mobile clinics, ambulance services, and subsidised transport schemes on maternal care access in rural and hard-to-reach areas.
b) Addressing Financial Barriers to Care: Evaluate how different financial support interventions—e. g. cash transfers, service fee waivers—affect service uptake, especially among the poorest women.
c) Quality of Care and Maternal Health Outcomes: Examine how infrastructure, staff competence, and service availability affect maternal outcomes and patient satisfaction.
d) Integration of Traditional Birth Attendants into Formal Systems: Study models of collaboration that enable TBAs to contribute safely within the formal system, including training and incentive mechanisms.
e) Effectiveness of Culturally Sensitive Health Education**:** Investigate how integrating traditional beliefs into health promotion affects maternal behaviours and uptake of facility-based care.
f) Influence of Social Support Networks on Service Utilisation: Explore the roles of fathers, senior female relatives, and community structures like HDA and PWC in shaping maternal health decisions.
g) Longitudinal Studies on Maternal Health-Seeking Behaviour: Track maternal care utilisation across multiple pregnancies to understand long-term behavioural patterns and service gaps.
h) ICT-Based Maternal Health Services: Future research should assess the availability, accessibility, and utilisation of ICT-based maternal health services (e.g. mobile health applications, telemedicine, SMS appointment reminders, and health information hotlines) in rural Ethiopian settings, and examine how technological innovations could address geographical and informational barriers to maternal healthcare access.

Pursuing these research areas will provide critical insights to strengthen maternal health systems and ensure that interventions are grounded in the lived realities of mothers and communities in Sidama.

7.6 Conclusion

This thesis provides a comprehensive understanding of the complex factors influencing maternal healthcare utilisation in the Sidama region of Ethiopia, aligning closely with the aims stated in the abstract. The literature review identified significant gaps in current maternal health interventions, particularly the limitations of generic approaches that overlook cultural and contextual realities in low-resource settings.

By integrating the Theory of Planned Behaviour (TPB) and the Socio-Ecological Model (SEM), this study developed an innovative theoretical framework that bridges personal agency with structural and community-level influences. This dual lens enabled a richer analysis of how attitudes, social norms, and perceived control interact with broader systemic and cultural factors shaping maternal health decisions.

Employing a qualitative methodology grounded in semi-structured interviews with mothers, the study captured original, in-depth perspectives often marginalised in health research. The findings highlight the pivotal roles of cultural beliefs, family and community expectations, health system quality, and accessibility challenges in shaping service utilisation.

To improve maternal health service utilisation in contexts like Sidama, it is essential to develop strategies that respond to the complex interplay of social, cultural, and structural factors. These insights culminated in a context-sensitive conceptual framework that critiques the limitations of existing theory and provides practical guidance for multi-level interventions. Specifically, the framework highlights the need to address cultural norms, strengthen women's autonomy, improve health infrastructure, and promote respectful and empathetic care as central components of effective maternal health strategies.

In conclusion, this thesis both advances knowledge and contributes to the related policy discourse by demonstrating that improving maternal healthcare utilisation requires integrated, context-aware approaches that are responsive to the lived realities of women. The findings and framework provide a solid foundation for future interventions that are both theoretically robust, practically applicable, and effective at the level of the individual and her community.

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APPENDICES

Appendix A: Ethical Clearance

UNISA university of south africa

COLLEGE OF HUMAN SCIENCES RESEARCH ETHICS REVIEW COMMITTEE

31 July 2020

NHREC Registration # :
Rec-240816-052
CREC Reference # : 2020-PsyREC- 61947849

Dear Fara Emebet Mekonnen

Decision:
Ethics Approval from 31 July 2020 to 31 October 2023

Researcher(s): Fara Emebet Mekonnen

Supervisor(s) : Dr NC Mthembu

mthemnc@unisa.ac.za

Community Perceptions towards Maternal Health Programmes in Sidama Zone, Southern Ethiopia.

Qualification Applied: PhD

Thank you for the application for research ethics clearance by the Unisa Department of Psychology College of Human Science Ethics Committee. Ethics approval is granted for three years.

The ***high risk application*** *was* ***reviewed and*** **expedited** by Department of Psychology College of Human Sciences Research Ethics Committee, on **31 July 2020** in compliance with the Unisa Policy on Research Ethics and the Standard Operating Procedure on Research Ethics Risk Assessment.

The proposed research may now commence with the provisions 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.

Open Rubric

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2. Any adverse circumstance arising in the undertaking of the research project that is relevant to the ethicality of the study should be communicated in writing to the Department of Psychology Ethics Review Committee.
3. The researcher(s) will conduct the study according to the methods and procedures set out in the approved application.
4. Any changes that can affect the study-related risks for the research participants, particularly in terms of assurances made with regards to the protection of participants' privacy and the confidentiality of the data, should be reported to the Committee in writing, accompanied by a progress report.
5. 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. Adherence to the following South African legislation is important, if applicable: Protection of Personal Information Act, no 4 of 2013; Children's act no 38 of 2005 and the National Health Act, no 61 of 2003.
6. Only de-identified research data may be used for secondary research purposes in future on condition that the research objectives are similar to those of the original research. Secondary use of identifiable human research data require additional ethics clearance.
7. No fieldwork activities may continue after the expiry date **(31 October 2023).** Submission of a completed research ethics progress report will constitute an application for renewal of Ethics Research Committee approval.

Note:

The reference number **2020-PsyREC-61947849** *should be clearly indicated on all forms of communication with the intended research participants, as well as with the Committee.*

Yours sincerely,

Signature :

Prof I. Ferns
Ethics Chair: Psychology
Email: fernsi@unisa.ac.za
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Signature :

Prof K. Masemola
Executive Dean : CHS
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Appendix B: Informed Consent Form

Dear Participant,

Hello, my name is Emebet Mekonen Fara and I am currently working towards obtaining a doctoral degree in Sociology at the University of South Africa (UNISA).

My research centres on understanding mothers' experience and views regarding maternal health service utilisation. I will like to conduct an interview with you, by asking you some questions; particularly about your experiences of service use during pregnancy, childbirth, and immediately after delivery. I want to interview mothers who give birth in the last two years, so as to enable me gain insights into your experiences before, during and after childbirth, and that is why you were selected for this research.

Please note that answers are completely confidential and your name and identification will not be written on this form and will never be used in connection with any of the information provided. You are also notified that you do not have to answer any questions that you are not comfortable with (sensitive), and may end this interview at any time you want. We would greatly appreciate your assistance to participate in this study. In case you need any clarification, you can contact the researcher with the following address. Tel: +2519111817744; e-mail: emekonnen62@yahoo. com.

Are you willing to participate in this research voluntarily?

Yes ☐ No ☐

Signature of participant _____ Date_____

(Certifying that informed consent has been given verbally by the participant)

Signature of researcher/research assistant _____ Date_____

(Certifying that the researcher has given information verbally to the informant)

Appendix C: In-depth interview schedule for mothers

Background information of participants

Please tell us about yourself	
Age	
Marital status	
Educational status	
Number of living children	
If pregnant, when is your baby expected?	

1. Do you know about the maternal health services provided in health facilities? What types of services do you know?

To asses attitude towards maternal health program

2. Do you think it is important for pregnant mothers to go to a health facility for ANC (Antenatal care), Delivery and PNC (postnatal care) service?

To asses subjective norm

3. From whom do you prefer to get ANC (Antenatal care) Delivery and PNC (postnatal care) services?

To assess the ability to use MH service

4. What things make it easy for you to go to a health facility during your pregnancy, during labour and after delivery?

To assess community-related factors

5. What community-related factors do you think affected pregnant mothers from using health facilities?

Appendix D: In-depth interview schedule for Traditional Birth Attendants

Background information of the participant

Please tell us about yourself, and your role in providing maternal health services	
For how long are you working as a traditional birth attendant?	
Educational status?	
Received any training on maternal health	

To asses knowledge and attitude about MH services

1. What advantages did you think a pregnant mother gets when giving birth by TBA (Traditional birth attendant)?
2. Do you have regular communication with HEW (Health Extension Worker)? Under what circumstances do you contact the HEW (Health Extension Worker)?
3. What traditional practices do you think pregnant women practice during pregnancy, delivery and postnatal times that decrease the likelihood of maternal health service utilisation?

To assess access to maternal health

4. Do you send women to a health facility? When?
5. What challenges did you face in encouraging high-risk women to deliver in a health facility?

To assess mothers / community/ attitudes

6. Who do you think women normally contact when they are pregnant?
7. How do you evaluate communities' attitudes towards TBAs (Traditional birth attendant)?

Appendix E: Interview schedule for Health Extension Workers

Background information of participants

How long have you been a HEW?	
Did you get additional on-job-training on maternal health care?	

1. Please tell us a bit about your role in providing maternal health services.

To assess Facility and policy-related factors

2. What services do you currently provide for pregnant women and delivering mothers?
3. What challenges do you face in making referrals?
4. Do you have service delivery guideline and policy documents related to your work? If no, how do you give maternal health services?

To assess Community attitudes towards MH service

5. How do you see the community's attitude towards maternal health services delivered by HEWs? Which service do they prefer the most?
6. What factors do you think affect pregnant mother's decisions regarding the place of delivery?
7. What factors do you think led them to deliver at their home?
8. What do you think is expected from the Government to improve the maternal health services?

Appendix F: In-depth interview guide for delivery case team leader at a health centre

Background information of participants

Gender	
What is your profession?	
For how long did you work in this Health Center?	

1. Please tell us about your role in providing maternal health services in the health facility.

To assess knowledge and practice about MH service

1. What maternal health services are available for pregnant mothers in your health centre?
2. Have you received any referral?

To assess perceptions and belief about maternal health service

3. How do you see communities' attitude towards maternal health services provided by the health centre for pregnant mothers?
4. Where do you think, women would like to give birth? Why?
5. What health facility-related factors do you think to affect pregnant women from utilising the health centre for maternal health services?
6. What religious or traditional factors do you think affect maternal health service utilisation in your community?

To assess institutional and public policy issue

7. Do you think the health centre is providing adequate maternal health services based on the standard?
8. What do you think is expected from the Government and other stakeholders to improve the maternal health services?

Appendix G: In-depth interview schedule for maternal health programme head

Background information of participants

What is your profession?	
For how long do you work in this position?	

1. Can you tell us your role concerning coordinating maternal health services?

To asses programme coordinator perception of maternal health program

2. What do you think is the importance of HEP (Health Extension Programme) in the implementation of MH (Maternal Health) services?
3. What do you think is the reason for low institutional delivery in your area?

To assess programme coordinator perception of health facility factors

4. How do you see the readiness of health facilities to provide quality maternal health services?
5. How do you see a health care provider's skill, competence and readiness to provide adequate services for pregnant mothers?

To asses factors affecting maternal health service utilisation

6. What health facility and policy-related factors need to be addressed to improve maternal health services?
7. What traditional practices do you think affect maternal health service utilisation during pregnancy, delivery and postnatal times in your area?
8. What do you think should be done to improve maternal health service utilisation?

Appendix H: Focus Group interview schedule for women participants

Background information of participants

Code	Age	Role in community or Occupation	Education:

To asses Knowledge, belief and attitude regarding MH service

1. What do you know about maternal health programme available in health facilities? (Including health posts and health centres)
2. Do you think it is important for pregnant women to visit a health facility during pregnancy for ANC (Antenatal Care), Delivery, PNC (postnatal care) services? Why? When?

To assess subjective Norm

3. From whom do you think a pregnant mother wants to get advice and support?
4. To assess the perception of mothers to MH service
5. What do you think is the importance (advantage/disadvantage) of giving birth at a health facility?

Appendix I: Focus group Interview schedule for men and HDA

Background information of participants

Code	Age	Role in community or Occupation	Education:

To asses knowledge, factors and subjective norms

1. What do you know about maternal health programme available in health facilities?
2. What religious, cultural and social beliefs are affecting mothers not to use modern health institutions for maternal health services?
3. How do your community respond to the information disseminated by HAD (Health Development Army) and HEWs (Health Extension Workers)?
4. How are community mobilization about maternal health and institutional delivery implemented in your kebele?
5. Before finishing our discussion, if you have anything to add, any additional points regarding maternal health programme as you have experience in working with mothers and families.