



Cultural Barriers to Seeking Maternal Health Care in Ethiopia: A Review of the Literature



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Abbreviations and Acronyms

ANC	Antenatal care
EDHS	Ethiopia and Demographic Health Survey
FMOH	Federal Ministry of Health
HEW	Health extension worker
HSDP	Health Sector Development Plan
MCHIP	Maternal and Child Health Integrated Program
MDG	Millennium Development Goal
MMR	Maternal mortality ratio
SBA	Skilled birth attendant
TBA	Traditional birth attendant
USAID	United States Agency for International Development
WHO	World Health Organization

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Executive Summary

Maternal and neonatal morbidity and mortality rates in Ethiopia are among the highest in the world and are attributable to a range of socioeconomic, political, and demographic factors. The dangers associated with giving birth at home are ever-present in communities throughout the country. However, awareness of these dangers has done little to increase facility-based delivery rates. Given the diverse challenges that pregnant women face throughout the continuum of care, a broad range of measures are needed to improve women's health.

Both globally and in Ethiopia, there has been an acceleration of efforts to improve the availability, accessibility, and quality of maternal health services and develop policies in support of facility-based birth with a skilled provider. As a part of these efforts, and to critically examine the complex issues inhibiting institutional births, USAID asked the Maternal Child Health Integrated Program (MCHIP) to identify cultural practices, perceptions, and beliefs that influence women's decision to seek facility-based maternal health care in Ethiopia. We performed a literature review and prepared this report to summarize the key cultural influences on maternal care-seeking behavior. The objective of our review was to identify sociocultural barriers affecting the use of skilled maternal health care and research gaps with regard to sociocultural barriers that affect utilization of skilled maternal health services.

The review includes both published and unpublished sources and reveals the paucity of literature discussing the influence of culture/tradition on care-seeking behavior. It identifies specific cultural and traditional practices that are considered valuable elements of the birthing tradition in Ethiopia as well as practices that do not support institutional delivery. Expectant mothers face numerous sociocultural barriers in seeking skilled maternal health care. This report summarizes the literature addressing those barriers.

Introduction and Background

Ethiopia has one of the highest maternal mortality ratios (MMRs) in the world (676 maternal deaths per 100,000 live births in the 2011 Ethiopian Demographic Health Survey) (UNDP 2010; Abdella 2010; MEASURE Evaluation & Central Statistical Agency 2012). Despite an effort to expand coverage of health services, Ethiopia has struggled to improve its maternal health indicators (FMOH 2007). Not surprisingly, the country's high MMR is associated with a lack of adequate access and continued under-utilization of modern health services (Fauveau et al. 1988; Fortney 1988; Mekonnen and Mekonnen 2003; Regassa 2011).

The risk of maternal death is greatest during labor, increasing significantly during the second and third stages and continuing into the postpartum period (UN 2012; WHO 1991). It is estimated that 90% of maternal deaths could be prevented with timely medical intervention (Thaddeus and Maine 1994; Ronsmans and Graham 2006).

Leading Direct Causes of Maternal Death in Ethiopia	
Obstructed/prolonged labor	25%
Antepartum/postpartum hemorrhage	12%
Severe pre-eclampsia/eclampsia	11%
Complications of abortion	6%
Postpartum sepsis	5%

Source: EDHS 2011

The chances of death decrease considerably if women receive skilled maternal health care during delivery (WHO 1991; Campbell and Graham 2006; Bloom, Lippeveld and Wypij 1999; Kwast and Liff 1988). Ensuring the availability of appropriate and adequate services and quick access to services when obstetric emergencies arise is one of the most important aspects of safe motherhood programs in developing countries (WHO 1991; Bloom, Lippeveld and Wypij 1999). In addition, numerous studies have noted that the high levels of maternal mortality and morbidity in developing countries such as Ethiopia demonstrate the need for maternal health services such as antenatal and postnatal care (ANC and PNC) and for trained personnel who can provide basic essential obstetric care during labor and delivery (Mekonnen and Mekonnen 2003; UN 2012; Thaddeus and Maine 1994; Ronsmans and Graham 2006; Koblinsky, Campbell and Heichelheim 1999; Warren 2010).

Despite the Ethiopian government's efforts to improve maternal health, as well as the increase in the number of health centers in the country, health service utilization is "unacceptably low" (Seifu, Gebrehiwot and Fantahun 2011). Only about 34% of women receive ANC, and perhaps most significantly, an estimated 90% of births still do not take place in a health facility with the assistance of a skilled provider (MEASURE Evaluation & Central Statistical Agency 2012; Seifu, Gebrehiwot and Fantahun 2011; UNICEF 2012; Belay 1997). Policymakers, practitioners, and researchers all identify the gap between availability and use of maternal health care services. Seifu, Gebrehiwot and Fantahun (2011), Warren (2010), and Mekonnen and Mekonnen (2003) have all concluded that increasing the availability of services and equipment does not guarantee that women will use them.

Little is known about the levels and patterns of maternal health service utilization (Bloom, Lippeveld and Wypij 1999; Mekonnen 2003). However, several Ethiopian studies have examined socioeconomic and demographic factors affecting the use of ANC services (Abdella 2010; Mekonnen and Mekonnen 2003; Regassa 2011; Warren 2010; Seifu, Gebrehiwot and Fantahun 2011; Mekonnen 2003; Shimeka, Mazengia and Woldeyohannes 2012; Karim et al. 2010). In addition, many studies have reviewed the multiple variables contributing to under-utilization of maternal health services in Ethiopia's nine regions (Mekonnen and Mekonnen 2003; Regassa 2011; Kwast and Liff 1988; Seifu, Gebrehiwot and Fantahun 2011; Mekonnen 2003; Shimeka, Mazengia and Woldeyohannes 2012). These studies have produced evidence suggesting that multiple socioeconomic/cultural factors act as barriers to accessing care throughout a woman's

pregnancy, and these factors are particularly evident in the decision to seek care and assistance during and directly after pregnancy. Women generally claim that they faced obstacle(s) to seeking and receiving appropriate health care during their pregnancy (Thaddeus and Maine 1994; Campbell and Graham 2006; Koblinsky, Campbell and Heichelheim 1999; Warren 2010). In ethnically and demographically diverse countries such as Ethiopia, there are many challenges that contribute to low facility use, particularly for delivery.

Many times the only assistance available to a mother is the care provided by a relative or friend or a traditional birth attendant (MEASURE Evaluation & Central Statistical Agency 2012; Central Statistical Agency of Ethiopia 2011). Where a woman delivers, who attends her in labor, and how quickly she can be transported to referral-level care are crucial in determining birth outcomes (Thaddeus and Maine 1994; Campbell and Graham 2006). Cultural norms carry significant weight in women’s decision-making, particularly in the choice of a location for birth (Warren 2010). Yet many of the sociocultural traditions surrounding birth that are important to women and families are not acknowledged by health providers. In the spirit of encouraging women to use health care facilities, sociocultural traditions must be addressed and incorporated into facility-based care (AbouZahr and Wardlaw 2003; Stanton 2007).

In many studies of Ethiopia, cultural barriers have been found to be a significant determinant of care-seeking behavior, particularly as it relates to facility-based delivery (Mekonnen and Mekonnen 2003; Kwast and Liff 1988; Warren 2010; Seifu, Gebrehiwot and Fantahun 2011; Shimeka, Mazengia and Woldeyohannes 2012; Karim et al. 2010; Stephenson et al. 2006). However, there remains a significant need to understand *how* culture encourages or discourages expectant mothers and their families to use maternal health services. We must better understand what causes women to view health facilities as the last resort for their maternal health care needs. Some reports demonstrate that the quality of facility-based maternal health services is poor and that traditional belief systems influence birthing practices (Mekonnen and Mekonnen 2003; Koblinsky 2006; Mavalankar 2003). This same body of literature has identified a broad range of cultural beliefs that influence the perceptions of maternal danger signs and complications (Abdella 2010; Mekonnen and Mekonnen 2003; Regassa 2011; Kwast and Liff 1988; Warren 2010; Seifu, Gebrehiwot and Fantahun 2011; Belay 1997; Shimeka, Mazengia and Woldeyohannes 2012). Ultimately, it is not just the risk of death that encourages women to deliver in the facility, but the accessibility and availability of a caring and competent staff (Bloom, Lippeveld and Wypij 1999). Thus, the experiences women have at the facility can significantly influence their decision to return for further services.

MATERNAL HEALTH IN ETHIOPIA	
Millennium Development Goals Indicators:	
MDG 5A:	
Maternal Mortality Ratio (maternal deaths per 100,000 live births)	676
Top 5 Direct Causes of Maternal Mortality	
Obstructed or prolonged labor (%)	25
Post/ante-partum hemorrhage/retained uterus (%)	12
Eclampsia (%)	11
Complications of unsafe abortion (%)	6
Sepsis (%)	5
Maternal Health Care Indicators:	
ANC received from skilled provider (%)	34
ANC received from HEW (%)	9
Births in health facility (%)	>1
Births attended by TBA (%)	28
Births attended by untrained family member or relative (%)	57
PNC checkup within 2 days (of any kind) (%)	6.7
PNC checkup given by HEW (%)	>1

EDHS 2011; CEmONC 2008

The literature clearly indicates that distance and cost are major obstacles in the decision to seek care, but the relationship between them is not simple (Thaddeus and Maine 1994; Bloom, Lippeveld and Wypij 1999). People often consider the quality of care more important than cost (UNDP 2010; Shimeka, Mazengia and Woldeyohannes 2012). Perhaps even more importantly, the cultural competence of care providers is an essential component in quality health care

(Mavalankar 2003; Anderson 2003; Stephenson et al. 2006). If service delivery is weak, expectant mothers may avoid facilities altogether and seek less effective birth solutions elsewhere (many times resorting to home deliveries and traditional practices) (Mekonnen and Mekonnen 2003; WHO 2004). However, because the alternatives to delivering in a facility are associated with a higher risk of poor maternal outcomes, improving the quality of basic and essential obstetric care in facilities is a crucial strategy to reduce maternal and neonatal deaths (Campbell and Graham 2006; Koblinsky, Campbell and Heichelheim 1999; Karim et al. 2010; Jokhio et al. 2006; Mavalankar 2003). In addition, providing culturally competent services has the potential to improve health outcomes, increase the efficiency of clinical and support staff, and improve client satisfaction with services (Anderson 2003).

METHODS

This literature review included both published and unpublished literature, collected from internet sources and digital copies of library documents. Sources included journal articles, books and monographs, reports, conference proceedings, and thesis works. The following journals and databases were searched: HINARI, PubMed, the *Ethiopian Journal of Health Development*, and the *Ethiopian Journal of Reproductive Health*. A Google search was conducted to identify additional web-based resources. Relevant master's-level public health theses written since 2005 were identified from the libraries at Addis Ababa, Jimma, and Gondar universities. The following search terms were used in the internet searches: *traditional practice Ethiopia*; *cultural practice maternal health Ethiopia*; *Ethiopian traditions*; *reproduction and Ethiopian tradition*; *determinants and maternal health service Ethiopia*; *sociocultural barriers and maternal health Ethiopia*; *women decision making power*; *gender norms Ethiopia*; and *family influence maternal services*. A total of 322 published and unpublished documents were collected for review. After articles and unpublished thesis works were identified, a two-stage process was used to select relevant articles for review. First, abstracts were reviewed and/or documents were superficially scanned for relevance. Second, a detailed analysis of the quality of each article was performed using the Trent Institute of Health Services Research criteria (Belay 1997). The appraisal criteria are listed below:

- Are the methods clearly described and appropriate for the purpose of the study?
- How was the study done (design, sampling, and data collection)?
- How were the data analyzed and interpreted?
- Does the interpretation of the results seem consistent with the results presented?
- Are there other explanations that could account for the results?

In the first stage, 208 documents were not considered relevant for the objective of this review and were excluded. In the second stage, 37 additional articles were excluded. Thus, the final literature review included 77 documents: 57 articles or thesis works and 20 “other” documents and reports (Figure 1).

CONCEPTUAL MODEL

Various frameworks have been developed to demonstrate factors influencing health care utilization. One of the most widely referenced and perhaps most respected frameworks is Thaddeus and Maine's Three Delays Model, which describes barriers to accessing care at a health facility (Thaddeus and Maine 1994). An adapted version of the model is helpful when looking at factors that contribute to under-use of and cultural barriers to maternal health care services. These factors can act separately as well as in tandem and can impact access at different levels of the decision-making process and the health care system. Figure 2 shows the adapted model that was

used to organize the literature into theme-specific categories.¹ The model outlines the three periods during the pregnancy continuum and shows how cultural/traditional practices and perceptions (the barriers) impede care-seeking behavior and the use of maternal health care services.

Figure 1. Literature selection

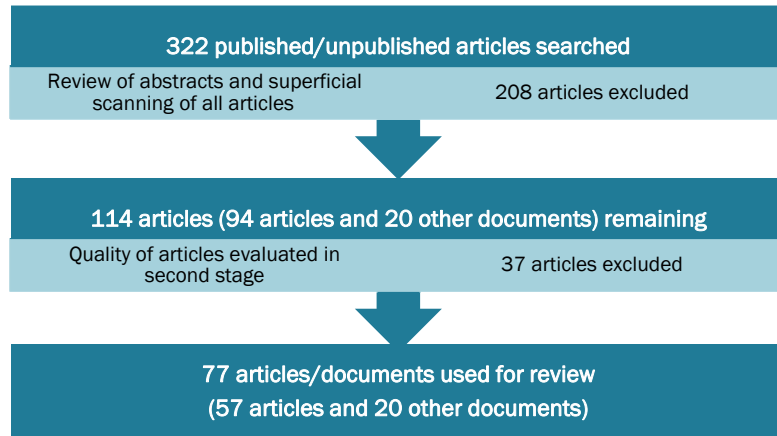


Figure 2: Framework for understanding cultural barriers to seeking maternal health care



Based on this model, key themes were pulled from the reviewed literature (see Appendix C). The literature was then organized into six interrelated categories that show how cultural practices, beliefs, and perceptions influence the use maternal health care services (see Appendix D).

¹ Color-coded barriers are defined in Appendix B.

Findings and Discussion

Danger signs: According to the literature, community perceptions and knowledge about pregnancy and labor complications lead to a number of barriers to maternal health care utilization. Some communities view pregnancy and childbirth as low risk or do not believe that prolonged labor and bleeding are problematic. Such beliefs may result from a lack of knowledge about the risks of pregnancy or a lack of maternal health service promotion. In addition, some communities lack knowledge of pregnancy danger signs or when to begin ANC, thereby inhibiting women from seeking maternal health care in a timely manner.

Pregnancy and illness: The studies also indicate that cultural beliefs about maternal health and illness can prevent women from utilizing modern maternal health care. Believing that illness is a punishment from God or that the outcome of pregnancy is predetermined by God/Allah can discourage women from seeking care to prevent pregnancy complications or treat complications once they occur. For a Muslim woman, believing that no man other than her husband should touch her body might keep her from seeking maternal health care if the facility's provider is male. In both Muslim and Christian communities, there is a belief that a mother can be exposed to the evil eye if she leaves the house within 10 days after childbirth.

Health facilities: Health facilities themselves can become barriers to maternal health care if women have negative perceptions of their cleanliness, equipment quality or availability, provider competence, or behavior. Some communities express dissatisfaction with providers' medical advice or management. In some communities, there is a belief that health facilities are for treatment rather than prevention, so it is not necessary to visit a facility if there is no apparent health problem. Finally, negative views of modern maternal health treatments and interventions sometimes conflict with cultural beliefs and practices, particularly if a woman must be separated from her family members during her delivery.

Birthing practice: The literature also reveals that, in some communities, women have specific childbirth preferences that lead them to opt for home delivery with a traditional birth attendant (TBA) rather than a facility-based delivery. For example, women might prefer the privacy that a home delivery provides, being in the presence of relatives, and/or delivering in a supported-sitting position. In addition, women may find TBAs more affordable than facility-based deliveries and have greater trust in TBAs because of their shared belief system. Many Ethiopian communities employ traditional practices during pregnancy and childbirth, some of which might be harmful to women or delay their seeking more nontraditional forms of medical care. In some religious Christian and Islamic communities, prayer and herbal solutions are used as a primary response to birth complications. In other communities, danger signs and complications are initially identified and treated by the TBA before any decision is made to seek further treatment for the expectant mother.

A mother's decision-making power: Studies of a number of communities in Ethiopia found that women lacked autonomy and involvement in decision-making. Such gender norms can prevent women from attending routine visits in health facilities, if they must attend and travel alone. A woman's decision to seek maternal health care is not always a decision she makes independently. Often women must have their husband's approval before they are permitted to seek and receive health care. In some of the communities studied, husbands either disapproved of ANC on religious grounds or lacked awareness of the importance of skilled care during pregnancy, labor and delivery, and the postpartum period.

Conclusions

Despite the growing body of literature documenting cultural barriers to care-seeking behavior, providers and policymakers continue to fall short in answering the question of why health facilities are under-used by pregnant women. There is little evidence to support the suggestion that increased coverage directly affects the number of deliveries that take place in facilities, which further suggests that perhaps use is constrained by less tangible/visible barriers such as culture and tradition (Mekonnen and Mekonnen 2003; Regassa 2011; Ronsmans and Graham 2006; Kwast and Liff 1988; Warren 2010; Seifu, Gebrehiwot and Fantahun 2011; Belay 1997; Mekonnen 2003; Shimeka, Mazengia and Woldeyohannes 2012; Karim et al. 2010; Central Statistical Agency of Ethiopia 2011).

The choice of where to give birth involves a complex balance between freedom of choice, control of the process and the outcome, and important cultural and traditional norms associated with the birthing process. As found in the literature, expectant and new mothers desire their family's involvement and community support throughout the pregnancy continuum. The factors discussed in this review contribute to women's and families' positive and negative perceptions of pregnancy and childbirth and can lead to barriers to care seeking at health facilities.

The literature reveals a number of sociocultural factors that influence the use of skilled care and maternal health care services in Ethiopia. There also are a number of gaps in the research on this topic, including the following:

1. Although the studies reviewed provided useful general information about perceptions of pregnancy and labor complications in Ethiopia, information about perceptions of specific maternal complications was not available. For example, no information was available about perceptions of the cause, risk, severity, and treatment of specific complications such as obstructed or prolonged labor, bleeding, or eclampsia.
2. The literature reviewed did not identify any studies that evaluate providers' cultural sensitivity. Given the great cultural diversity in Ethiopia and the numerous cultural beliefs and practices related to the pregnancy continuum, it is important to know whether providers are sensitive to such beliefs and traditions. If providers are not culturally sensitive, the lack of sensitivity might be another barrier to use of maternal health services.
3. The literature reviewed suggests that cultural and religious beliefs affect maternal health service utilization. Although the literature identified how these beliefs generally influence service utilization, no information was available about how such beliefs apply to specific maternal complications.
4. Although the studies reviewed cover some of the dominant ethnic groups (e.g., Oromo, Amhara, Somali, and Tigray), not all ethnic groups are included. Thus, the various traditions practiced in each ethnic group and their influences on the use of maternal health services have not been comprehensively studied.

Recommendations

Given the sociocultural barriers to maternal health care identified in the literature, the following measures are recommended in order to reduce these barriers and increase the utilization of skilled maternal health care services in Ethiopia.

COMMUNITY

1. Engage community and religious leaders in discussions about the importance of maternal health care and collaborate on educational or behavior change campaigns that encourage the use of modern maternal health care services.
2. Target men to improve their understanding of the importance of seeking care during pregnancy, including attendance at birth.
3. Develop targeted public education campaigns about pregnancy, preventive health services, complications, and risks in order to fill knowledge gaps. Such campaigns should target women of reproductive age and all individuals who may be influential in maternal health care decision-making.
4. Support communities to develop action plans to prepare for birth and emergencies in order to minimize out-of-pocket expenses associated with facility-based care and reduce delays in seeking care.

FACILITY

1. Solicit community views in quality assurance reviews of health facilities, including health posts, to improve quality of care.
2. Ensure the availability of female providers to offer maternal health services in health facilities.
3. Incorporate known preferences into facility-based deliveries (e.g., allow relatives to remain in the delivery room, allow women to deliver in the position of their choice, allow women to bring foods to the facility that have special significance during the birthing continuum).

GOVERNMENT POLICY

1. Use the existing HEW networks and the Health Development Army to help organize birth preparedness and complication readiness plans and promote ANC and skilled maternal health care in communities.
2. Review the ratio of female to male midwives in student selection and deployment, particularly in regions where female providers are preferred.
3. Devise educational or behavior change campaigns that explain and discourage harmful traditional practices.

LANGUAGE

1. Establish systems of community members who can serve as “on-call” translators in health facilities where providers may not be competent in local languages.
2. Seek to hire staff with diverse language skills in communities where the local language is not the national language.

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Appendix B: Literature-Specific Barriers

	BARRIERS	BARRIERS	BARRIERS
Community/household	<ul style="list-style-type: none"> Pregnancy seen as low-risk and as a “natural phenomenon/process” that can end in death or life, according to the will of Allah or God Pregnancy not typically discussed until noticeable Women receive help with pregnancy from their mothers and grandmothers Preference for ANC in the home Lack of understanding of maternal danger signs Distrust of modern medicine TBAs typically consulted first when pregnant woman falls ill Religious leaders typically consulted before health facilities for reproductive and maternal health complications Women have less freedom of movement on their own outside the household, and husbands hesitant to send wives to health facilities alone Cultural norms that rest heavily on patriarch and male decision-making; husbands seen as “decision makers”; their approval plays significant role in women seeking and receiving ANC Transportation and cost to get to health facility for ANC not typically justified for individuals who live far from health facility 	<ul style="list-style-type: none"> Preference to give birth with family members in a comfortable environment Family does not support facility birth Stronger trust in TBAs than in trained health professionals Lack of understanding of maternal danger signs “Evil eye” associated with maternal complications Intrapartum hemorrhaging seen as a normal side effect of vaginal births; not perceived to be a “danger” Prayer to God or Virgin Mary primarily employed when complications arise Belief that if there is no visible complication or perceived complication, there is no need to seek medical attention or care 	<ul style="list-style-type: none"> Typically, in both Christian and Muslim populations, women do not leave the house for 20–40 days postpartum Postpartum hemorrhage seen as a way of “cleansing and clearing out the bad blood from pregnancy” Traditional practices such as abdominal massage and leaving umbilical cord untied still practiced throughout country Lack of knowledge/understanding surrounding importance/necessity of postpartum care Fear of “evil spirit” (if information is disseminated, it can expose new mother to evil spirit, especially within 10 day postpartum period)
Health facility	<ul style="list-style-type: none"> Poor service quality/perception of poor service (i.e., “why bother?”) Husbands’ beliefs and/or religious views do not support male health workers touching their wives Lack of knowledge that ANC services are available and/or advisable during pregnancy Poor understanding of maternal danger signs and/or lack of understanding of follow-up 	<ul style="list-style-type: none"> Women will seek care only after traditional methods of resolving maternal complications have failed Many women dislike the way vaginal examinations are handled Women dislike being left alone during labor Some involvement of husbands/male support desired in terms of getting transport and paying for health facility services Health workers seen as insensitive to traditional birthing practices/positions/ceremonies Health workers seen as inattentive and/or unskilled 	<ul style="list-style-type: none"> Due to cost, women will leave facility soon after birth to decrease expenses Difficulties in preparing <i>genfo</i> (hot porridge) or coffee at health facility; <i>genfo</i> believed to help “heal or nourish new mother”; typically prepared by women of community before and after childbirth

	BARRIERS	BARRIERS	BARRIERS
		<ul style="list-style-type: none"> ▪ Family members not allowed in birthing rooms ▪ Women fear having male midwives touch their bodies/genitalia; ▪ Inaccessibility of traditional healers and TBAs as a support system through birthing process in health facility ▪ Inability to perform cultural ceremonies (i.e., coffee ceremony, prayer groups, and presence and use of holy water) in health facility ▪ Presence of male health workers at delivery not cultural norm ▪ Lack of privacy ▪ Lack of freedom to move around during labor 	

Appendix C: Key Themes Found in Literature

KEY THEMES
Familial/husband involvement and influence
Access to appropriate maternal and newborn health care
Gender roles and women's autonomy
Traditional maternal health practices
Community perceptions of maternal risks and danger signs
Birth preferences

Appendix D: Literature Review Tables

COMMUNITY PERCEPTIONS OF MATERNAL RISKS AND DANGER SIGNS					
Author	Title	Region	Source/Year	Study Design	Key Findings
Abdella (2010)	Maternal mortality trends in Ethiopia	Ethiopia	<i>Ethiop J Health Dev</i> 24 (4): 115-122	Review of published/unpublished documents	<ul style="list-style-type: none"> DHS and hospital data indicate decreasing maternal mortality despite current MMR remaining high Proportion of deaths after unsafe abortion is decreasing Deaths due to pre-eclampsia/eclampsia are increasing No notable change in proportion of deaths due to ruptured uterus/obstructed labor/hemorrhage/sepsis Case fatality rates of pre-eclampsia/eclampsia/ruptured uterus/obstructed labor are increasing
Dida (2010)	Determinants of institutional delivery among mothers following ANC at health institutions in Gindaberet and Abuna Gindaberet districts	Oromia	Department of Health and Education Behavioral Sciences, Jimma University, master's thesis	Cross-sectional facility-based survey	<ul style="list-style-type: none"> Mothers who had low perceived susceptibility to and severity of pregnancy complications were more likely to deliver at their home than those with high perceived susceptibility to and severity of pregnancy complications
Direess (2009)	Assessment of practices of women during pregnancy and childbirth with the perspectives of HEWs' role, Gubalافتo Woreda, North Wollo Zone, Amhara National Region State, Ethiopia	Amhara	School of Graduate Studies, Addis Ababa University, master's thesis	Cross-sectional community-based survey [qualitative/quantitative methods]	<ul style="list-style-type: none"> Some 63.4% of respondents received ANC 8.4% delivered in health facilities in their last pregnancies During pregnancy and childbirth, traditional practices such as abdominal massage and leaving umbilical cord untied were prevalent Around 35% of mothers/discussants expressed dissatisfaction with HEWs' minimal involvement in supporting in normal labor Many HEWs described never having attended a normal labor or delivery Maternal age, marital status, age at first pregnancy, perceived pregnancy and childbirth risks, and women's decision-making status were significantly associated with ANC attendance Women who were able to decide by themselves whether to use health services used ANC more than twice as often as their peers who did not decide by themselves <p>Most respondents reported that they were assisted by:</p> <ul style="list-style-type: none"> Family (332; 39.5%) TBAs (284; 33.8%) HEWs (33; 3.9%) for home deliveries Nurses/midwives (19, 2.3%) for health facility deliveries Other relatives and other health workers <p>The majority of respondents identified the following reasons for home delivery:</p> <ul style="list-style-type: none"> Previous home delivery was normal (196; 25.5%) Told pregnancy was normal (191; 24.8%) Presence of TBAs/trust of TBAs (130; 16.9%)

COMMUNITY PERCEPTIONS OF MATERNAL RISKS AND DANGER SIGNS					
Author	Title	Region	Source/Year	Study Design	Key Findings
Warren (2010)	Care seeking for maternal health: Challenges remain for poor women	Countrywide	<i>Ethiopia Journal Health Dev</i> 24 (Special issue 1): 100–104	Community-based survey [qualitative rapid assessment technique(s)]	<ul style="list-style-type: none"> ▪ Community perceived majority of pregnancies to be natural and relatively low-risk ▪ Community became less attentive to the recognition and treatment of complications ▪ At community level, TBAs, both trained and untrained, are the prime source of advice and a key influence on behavior during all stages of the pregnancy continuum ▪ Health facility workers are perceived to be insensitive to traditional elements of childbirth ▪ Both sexual behavior and care-seeking behavior are strongly determined by gender ▪ Men define reality for the community and control access to resources ▪ Pervasive gender inequality affects decision-making and undermines female control over sexuality and its outcomes ▪ Men are thought to be needed in the event of complications, in order to facilitate referral and the necessary resources
Yousuf, Ayalew and Seid (2011)	Maternal health beliefs, attitudes and practices among Ethiopian Afar	Afar	<i>Exchange</i> 1: 12–16	Qualitative community-based study	<p>Main reasons for delayed referral to health facilities were:</p> <ul style="list-style-type: none"> ▪ Preference for home delivery ▪ Religious beliefs ▪ Traditional attitudes in community ▪ Fear of male midwives touching their bodies, especially reproductive organs <p>Key themes:</p> <ul style="list-style-type: none"> ▪ Pregnant women seek advice from TBAs and traditional healers when they fall sick. ▪ TBAs and traditional healers often keep mothers at home and pray for them (make <i>du'aa</i>) in the hope of recovery ▪ Muslim religious leaders provide RH issues reflective of Quranic teachings ▪ Afar women prefer sitting position while delivering ▪ Women seek formal health services when physiological abnormalities like bleeding, prolonged labor, and swelling of feet do not respond to <i>du'aa</i> (prayer) ▪ Dizziness, puerperal psychosis, protrusion of tongue, prolonged labor, and lack of appetite are [mostly] associated with <i>jinni</i> (evil spirit) and are to be dealt with by traditional healers and religious leaders

ACCESS TO APPROPRIATE MCH CARE					
Author	Title	Region	Source/Year	Study Design	Key Findings
Alemayehu (2008)	Determinants of teenage fertility and their maternal health service utilization in Ethiopia	Amhara, Oromia, and Addis Ababa	School of Graduate Studies, Addis Ababa University, master's thesis	Cross-sectional community-based survey; further analysis of EDHS 2005 [qualitative]	<ul style="list-style-type: none"> 27.3% of women received ANC from a health facility worker at least once before recent childbirth Level of education, wealth index, and place of residence were identified as important determinants Concerns expressed about family support at health facility or with health facility worker Other reasons for not using a health facility included: inadequate information about the existing service, ignorance, fear, shyness, distance, culture, economic factors unfriendly approach of health care providers
Aliy (2005)	Assessment of equity in provision and utilization of maternal and child health programs in Butajira	Southern Nations, Nationalities, and People's Region (SNNPR)	School of Graduate Studies, Addis Ababa University, master's thesis	Case-control study and document (chart) review	<ul style="list-style-type: none"> Living in urban area was significantly associated with ANC service utilization Living within 6 km of a health facility was significantly associated with giving birth to live baby
Asres (2008)	Assessment of factors associated with safe delivery service utilization among women of childbearing age in Sheka Zone	SNNPR	School of Graduate Studies, Addis Ababa University, master's thesis	Cross-sectional community-based survey [qualitative/quantitative]	<p>Women more likely to give birth at health facilities if they:</p> <ul style="list-style-type: none"> Completed a minimum of secondary school in first birth order Received ANC Had previous delivery at health facility Experienced birth complications <p>Key informant interview indicated:</p> <ul style="list-style-type: none"> Difficult to provide delivery service at any time and place since most deliveries take place unexpectedly at night Inadequate skilled professionals Lack of in-service training Shortage of equipment and supplies Lack of knowledge of maternal danger signs and risk factors and benefits of delivery at a health facility Unwelcoming attitude to women; "unprofessional" behaviors Lack of basic equipment at health facilities
Ayele (2005)	What factors determine delivery practices of pregnant women? Comparative analysis of findings from behavioral modeling and follow up	Oromia	School of Graduate Studies, Addis Ababa University, master's thesis	Prospective community-based follow-up study	<p>Institutional delivery services were more likely to be used by:</p> <ul style="list-style-type: none"> Younger educated women Women who attended ANC follow-up Women whose husbands and relatives preferred SBA Women who were able to make the decision to seek at care at a health facility

ACCESS TO APPROPRIATE MCH CARE						
Author	Title	Region	Source/Year	Study Design	Key Findings	
Birhanu (2009)	Satisfaction of outpatients with health care provider interactions and influencing factors at health centers in West Shoa zone, Oromia region	Oromia	Department of Health Education and Behavioral Sciences, Jimma University, master's thesis	Cross-sectional facility-based study	<ul style="list-style-type: none"> 50% of patients perceived low empathy from providers 63.4% of respondents perceived that providers were technically competent enough The mean consultation length was 6.26 minutes Mean time of expected consultation duration was 14.02 minutes 62.9% of patients reported they had been satisfied with their visit <p>Study revealed the following independent predictors of satisfaction:</p> <ul style="list-style-type: none"> Perceived empathy Technical competency Nonverbal communication Enablement 	
Central Statistical Agency and ICF Macro (2011)	<i>Ethiopia Demographic and Health Survey 2011:</i>	Countrywide	MEASURE DHS, ICF Macro Calverton, Maryland, USA	Community-based survey	10% of women received delivery and 34% received ANC services from a health facility worker	
Ejigu (2010)	Quality of antenatal care services in public health facilities of Bahir-Dar Special Zone, Northwest Ethiopia	Amhara	Department of Health Services Management, Jimma University, master's thesis 2010	Facility-based cross-sectional study employing both quantitative and qualitative methods	<ul style="list-style-type: none"> Less than half (47.7%) of the women were satisfied with the ANC services received 64.0% of the women had not received iron/folic acid On inventory, Urictix for detection of glucose & protein in urine, VDRL, and hemoglobin measurements were available in only two health facilities and iron sulfate/folic acid were present in only one facility 	
Koblinsky et al. (2010)	Responding to the maternal health care challenge: The Ethiopian Health Extension Program	Countrywide	<i>Ethiopia J Health Dev</i> 24: 105–109	Literature review	<ul style="list-style-type: none"> Achieving the set targets is a daunting task despite reaching the physical targets of two health extension workers per kebele. The 2015 MDG target for MMR is 218 while the 2005 MMR estimate was 673. The HSDP target is 32% skilled birth attendant use by 2010, but only about 12% use was found in the four most populated regions of the country in 2009. The Health Extension Program can have greater impact through improved promotion of family planning and specific maternal interventions such as misoprostol for third stage of labor, immediate postpartum visits, and improved coordination from community to referral level. 	
Kruk et al. (2010)	Women's preferences for obstetric care in rural Ethiopia: A population-based discrete choice experiment in a region with low rates of facility delivery	Oromia	<i>J Epidemiol Community Health</i> 64(11): 984–988	Population-based discrete choice experiment (DCE)	<ul style="list-style-type: none"> 93.8% had last child at home Strong preference for health facilities with good quality, highly trained providers, and reliable supply of medicines Provider respect for the patient was also important Convenient access and proximity to health facilities were not considered of primary importance 	

ACCESS TO APPROPRIATE MCH CARE					
Author	Title	Region	Source/Year	Study Design	Key Findings
Mekonnen (2003)	Patterns of maternity care service utilization in Southern Ethiopia: Evidence from a community and family survey	South	Ethiop J Health Dev 17(1): 27-33		<ul style="list-style-type: none"> 26.1% of women received ANC and 3.3% received delivery care services ANC and delivery care services for subsequent pregnancies were less common among those women with more than one child under-five and those residing in the rural parts of the study area
Sinshaw (2009)	Assessment of quality of antenatal care in Addis Ababa health centers	Addis Ababa	School of Graduate Studies, Addis Ababa University, master's thesis		<ul style="list-style-type: none"> Overall client satisfaction was 89% Likelihood of satisfaction with ANC service was lower among women above 34 years of age Most health facilities have no clinical management guidelines
Tariku (2008)	Why do pregnant women delay to attend prenatal care? Cross-sectional study on timing of first antenatal care booking at public health institutions in Addis Ababa	Addis Ababa	School of Graduate Studies, Addis Ababa University, master's thesis	Cross-sectional facility-based study	<ul style="list-style-type: none"> 40.2% of women made their first ANC within the recommended time [before or at 12 weeks of gestation] Timing of ANC booking ranged from 1st month to 9th months of gestation (mean timing was 4 months [SD 1.8]) Respondents with their first pregnancy who said their pregnancy was planned and who received advice on the advantages of early ANC booking were more likely than others to make a timely booking
Tayeign (2010)	Assessment of quality of institutional delivery service in referral hospitals of Amhara region, Ethiopia	Amhara	School of Public Health University of Gondar, master's thesis	Cross-sectional hospital-based survey	<ul style="list-style-type: none"> Overall quality of institutional delivery care was rated poor by study subjects Essential consumables were not adequately available Necessary infrastructure were also deficient in hospitals Poor patient-centered care was observed; however, 61.9% of mothers stated were satisfied with delivery care Women's satisfaction with delivery care was associated with status of the pregnancy, current maternal condition, waiting time before being seen by a health worker, perceived availability of waiting area, care taken by providers to ensure privacy during examinations, and cost of service
Yared and Asnakech (2003)	Factors influencing the use of maternal healthcare services in Ethiopia	Countrywide	JHPN 21(4): 374-382	Community-based cross-sectional study (from EDHS data)	<ul style="list-style-type: none"> 27% and 6% received SBA-attended ANC and delivery care services in the five years preceding the study Demographic and sociocultural factors were the most important aspects that influenced the use of maternal health care services Education of mothers, marital status, place of residence, parity, and religion were predictors of service use

ACCESS TO APPROPRIATE MCH CARE

Author	Title	Region	Source/Year	Study Design	Key Findings
Yared (2005)	Patterns of maternity care service utilization in Southern Ethiopia: Evidence from a community family survey	SNNPR	School of Graduate Studies, Addis Ababa University, master's thesis	Qualitative	26.1% of women received ANC and 3.3% received delivery services

BIRTHING PREFERENCES					
Author	Title	Region	Source/Year	Study Design	Key Findings
Argaw (2009)	Assessment of the magnitude and factors affecting safe delivery and postnatal services utilization among women living in Ambo town and its surrounding area, West Shewa Zone, Oromia regional state, Central Ethiopia	Oromia	School of Graduate Studies, Addis Ababa University, master's thesis	Cross-sectional community-based survey	<ul style="list-style-type: none"> 389 (67%) of the respondents utilized ANC Majority of respondents (75%) delivered at home 98 (17%) received postnatal care 278 (48%) said reason for home delivery was need to be with a relative 178 (31%) lacked knowledge of institutional delivery <p>Major reasons for using health facility delivery included:</p> <ul style="list-style-type: none"> High-quality care Positive approach of health facility workers Convenient location of health facility
Dessaiegn (2010)	Assessment of utilization of maternal health care services and influencing factors in Dabat woreda, Northwest Ethiopia	Amhara	School of Public Health, University of Gondar, master's thesis		<ul style="list-style-type: none"> 35.8% of mothers used ANC services at least once during their most recent pregnancy 11.1% had institutional delivery 9.2% received postnatal care 626 (78.2%) wanted to deliver at home with relatives nearby 158 (19.7%) wanted home delivery with cultural ceremonies and familial support 112 (14.0%) had greater trust in TBAs or relatives than health facility workers at health facilities <p>Reasons given for not attending postnatal care:</p> <ul style="list-style-type: none"> 480 (89.9%) perceived state of health to be normal 174 (88.8%) stated cultural practice did not allow new mothers to leave the house before baptism of new baby 103 (92%) had limited or no knowledge of postpartum services
Mekonnen (2009)	Assessment of level of institutional delivery and associated factors among women who gave birth five years preceding the survey in Motta Town Administration, East Gojjam zone, Amhara regional state	Amhara	School of Public Health, University of Gondar, master's thesis	Cross-sectional community-based survey [quantitative/qualitative]	<ul style="list-style-type: none"> 390 (59%) mothers delivered at home in previous five years 264 (67.9%) home deliveries were assisted by family members 110 (28%) were assisted by TBAs 13 (3.3%) of women delivered alone <p>Reason(s) given for home deliveries:</p> <ul style="list-style-type: none"> 28.8% had no problem in previous delivery 25.4% had short and smooth labor 8.7% preferred to be with family members 10.3% experienced problems with health facility service <p>Qualitative findings indicated that women:</p> <ul style="list-style-type: none"> Had negative perception toward institutional delivery Disliked vaginal examination Disliked being left alone (separated from family members) Disliked the way health providers handle them Preferred familiar traditional ceremony and traditional form of care Believed that there is no need of going to health institution if there is no problem

BIRTHING PREFERENCES					
Author	Title	Region	Source/Year	Study Design	Key Findings
Shimeka, Mazengia, Woideyohannes (2012)	Institutional delivery service utilization and associated factors among mothers who gave birth in the last 12 months in Sekela District, North West of Ethiopia: A community-based cross sectional study	Amhara	A community-based cross sectional study. <i>BMC Pregnancy Childbirth</i> 12(1): 74.	Cross-sectional community-based survey [quantitative/qualitative]	<ul style="list-style-type: none"> ▪ 12.1% delivered in health facilities ▪ 12.7% delivered assisted by SBAs ▪ 80.0% assisted by family members and relatives <p>Common reasons for home delivery:</p> <ul style="list-style-type: none"> ▪ Familial support (60.9%) ▪ Common/usual practice (57.7%) ▪ Unplanned/unexpected complications during labor (33.4%) ▪ Not "sick" and/or had no problem (21.6%) ▪ Influenced by family (14.4%) <p>Qualitative findings:</p> <ul style="list-style-type: none"> ▪ Home was preferred place of delivery ▪ Women felt there was freedom in home during delivery ▪ Women felt they got closer attention and care from family members, especially from their mother and sisters ▪ Husband and other family members influenced their decisions ▪ Women had negative perception of service quality in health ▪ Common perception or experience that health facility workers do not respect mother's beliefs, interests, or birthing preferences ▪ Fear of evil spirit (<i>thought</i>: if information is disseminated, it can expose new mother to evil spirit, especially up to 10 days postpartum) ▪ Majority of women noted that preferred attendant for delivery is woman's relative ▪ Typical for the mother to assist her daughter during labor

TRADITIONAL MATERNAL HEALTH PRACTICES					
Author	Title	Region	Source/Year	Study Design	Key Findings
Abay (2009)	Ethiopian herbal medicine practice and the recognition with modern medicine	Ethiopia	Phcog Rev 3(5): 44–47. Available online at www.phcogrev.com	Literature review	<ul style="list-style-type: none"> Use of traditional medicine for primary health care is extensive in Ethiopia (90%) Significant number(s) of people depend on herbal medicine even if it is not part of conventional health care system Herbalists are known by their Amharic names: <i>kite/betash</i> and <i>sir mash</i> Herbalists obtain drugs from different types of plants Drugs are prepared in various forms, including liquid (e.g., solution, suspension), semisolid (e.g., ointment), and solid (e.g., powder)
Argaw	Assessment of the magnitude and factors affecting safe delivery and postnatal services utilization among women of reproductive age group living in Ambo Town and its surrounding area, West Shewa Zone, Oromia Regional State	Oromia	School of Graduate Studies, Addis Ababa University, master's thesis	Cross-sectional community-based survey	<ul style="list-style-type: none"> 389 (67%) of respondents utilized antenatal care 75% gave birth to their last child birth at home 98 (17%) of mothers receive post natal care Most commonly raised reason for home delivery was need to be with relative (48%) followed by absence of knowledge of institutional delivery (31%) <p>Major reasons for using health facility for delivery:</p> <ul style="list-style-type: none"> High-quality of care Good approach of health workers Closely located near health facility
Deribe et al. (2006)	A historical overview of traditional medicine practices and policy in Ethiopia	Countrywide	Ethiop J Health Dev 20(2): 127 –134	Systematic review of available literature on Ethiopian traditional medicine	<ul style="list-style-type: none"> Traditional medicinal practices include prevention and curative services for physical, spiritual, social, mental, and material well-being Traditional practitioners have different names, including: bonesetters (<i>wogeshra</i>), birth attendants (<i>yelimd awalaj</i>), herbalists (<i>medhanit awaki</i>), religious healers (<i>debeta</i> and <i>kalich</i>), witch doctors (<i>tenquay</i>), and spiritual healers (<i>weqaby</i>) Religious practices such as praying and going to church play a large role in the healing process for Ethiopians Holy water for Orthodox Christians (called <i>tsebel</i> in Amharic) or <i>zemzem</i> in the case of Moslems is also frequently used for a wide variety of illnesses

TRADITIONAL MATERNAL HEALTH PRACTICES					
Author	Title	Region	Source/Year	Study Design	Key Findings
Fenta (2005)	Assessment of factors affecting utilization of maternal health care services in Ayssaita and Dubti towns, Afar Regional State, Northeast Ethiopia	Afar	School of Graduate Studies, Addis Ababa University, master's thesis	Cross-sectional community-based survey	<ul style="list-style-type: none"> 80% of women had at least one ANC visit during their recent pregnancy Most started ANC in second trimester of pregnancy Majority of deliveries took place at home (93.7% of home births were attended by TBAs) <p>Main reasons for home delivery:</p> <ul style="list-style-type: none"> Mothers desired presence of relatives during birth More trust of TBAs Lack of privacy in health facility Male professionals assisted during labor at health facilities Muslim religious leaders said that according to Muslim religion it is prohibited for a man to touch a woman's body (except for her husband) In Muslim religion it is indicated that a woman's genital organ be examined only by a female Women have less freedom of movement on their own outside the household; husbands hesitant to send their wives to health institutions alone
Gall and Shenkute (2009)	Ethiopian traditional and herbal medications and their interactions with conventional drugs	Ethiopia	<i>EthnoMed</i> November 3; available at: http://ethnomed.org/clinical/pharmacy/ethiopian-herb-drug-interactions	Literature review	<ul style="list-style-type: none"> Herbal ingredients and spices in Ethiopian food substances are also used in Ethiopian traditional medicine Common herbs/spices: <i>besobila</i> (basil), <i>senafich</i> (black mustard), <i>tikur azmud</i> (black seed), <i>berbere</i> (cayenne pepper), <i>qarafa</i> (cinnamon), <i>dimbelal</i> (coriander), <i>ensiala</i> (cumin), <i>dingetegna</i> (no translation), <i>abish</i> (fenugreek), <i>telba</i> (flaxseed), <i>nech shinkurt</i> (garlic), <i>zingibil</i> (ginger), <i>nanna</i> (peppermint), <i>tena adam</i> (rue) and <i>ird</i> (turmeric) When used for medicinal purposes these herbs and spices can increase adverse interactions with conventional medicines such as anti-arrhythmic, anti-seizure, anti-diabetic, and anti-coagulant medications
Hodes (1997)	Cross-cultural medicine and diverse health beliefs. Ethiopians abroad		<i>West J Med</i> 166(1): 29-36	Cross-sectional community-based survey [comparative study]	<ul style="list-style-type: none"> Traditional healers and prayers are needed when the health problem is associated with evil eye or evil spirit (like zar, a form of spirit possession) Excess sun exposure causes <i>mich</i> (skin disease); blowing winds cause chest diseases like TB Exposure to full moon at time of urination causes urethritis <i>Buda</i> (evil eye) and evil spirits are associated in many types of health problems, especially mental disorders <p>Traditional curative practices:</p> <ul style="list-style-type: none"> Tooth extraction for prevention of diarrhea Eye-brow incision for prevention of eye disease Uvulectomy for prevention of suffocation

TRADITIONAL MATERNAL HEALTH PRACTICES					
Author	Title	Region	Source/Year	Study Design	Key Findings
Molakign (1996)	Ethiopian cultural profile	Countrywide	EthnoMed; available at: http://ethnomed.org/culture/ethiopian-copy_of_ethiopian-cultural-profile/@view-documentation	Qualitative	<ul style="list-style-type: none"> Pregnancy usually not discussed until it is noticeable Women are helped through pregnancy by their mothers and other female family members; friends and neighbors rather than husband In rural areas, babies are born with the assistance of TBA or relatives In Orthodox Christian communities, women pray to God by the name of Virgin Mary at the time of labor and complications Warm foods are eaten during pregnancy and postpartum because they are believed to aid in healing after birth A thick, hot porridge called <i>genfo</i> is eaten by new mothers in the postpartum period <i>Genfo</i> ceremony before or after child birth by neighboring women to test the prepared food
Tegene (2010)	Antenatal care service utilization and associated factors in Jigjiga district, Somali national regional state, eastern Ethiopia	Somali	School of Public Health University of Gondar, master's thesis	Cross-sectional community-based survey [qualitative/quantitative assessment]	<ul style="list-style-type: none"> 649 women (60.4%) had at least one ANC visit during their last or current pregnancy 323 (82.6%) women who received ANC had less than four ANC visits during their recent pregnancy <p>Qualitative findings indicated that Somali communities believe that: <ul style="list-style-type: none"> Pregnancy is a natural process that can be ended either by death or life, as per the assignment of Allah. Somali women feel shy and, due to religious beliefs, do not like their body to be seen or touched by male health facility workers. Islam does not allow the female body to be seen by males, except by a woman's husband and close relatives. Home is the best place for ANC service because TBAs can come and administer service at low cost and because TBAs are old, experienced, and know everything </p>
Mekonnen (2009)	Household decision making status of women in relation to maternal health care utilization in Dabat, North West Ethiopia	Amhara	School of Public Health, University of Gondar, master's thesis	Cross-sectional community-based survey [quantitative/qualitative method(s)]	<ul style="list-style-type: none"> 58.8% and 60.1% of the respondents respectively reported that large purchases and visits to family, friends, and relatives are decided by husband alone. Women's involvement in decisions about large purchases was 0.1%. Involvement in decisions for big purchases showed a significant relationship with ANC use. Involvement of women in household decisions was limited in Dabat. Respondents believed that decisions about large purchases were for males and decisions about small daily purchases were for females. Women expressed lack of interest/involvement in large purchases and lack of confidence to purchase larger items. Male's role as primary decision-maker for large purchases was seen as a duty.

FAMILIAL/HUSBAND INVOLVEMENT/INFLUENCE					
Author	Title	Region	Source/Year	Study Design	Key Findings
Abay (2007)	Assessment of utilization of skilled birth attendant at delivery in Mekelle town, Northern Ethiopia	Tigray	Department of Community Health, Addis Ababa University Master Thesis, 2007	Cross-sectional community-based survey	<ul style="list-style-type: none"> About 69% of the women utilize skilled birth attendant during delivery. Maternal education (expectant mother/husband) with 1st pregnancy. Women who had ANC visits, know presence of pregnancy plan and possible delivery complications w/ their husband's preference to use SBA during delivery were more likely to utilize SBA than those who lacked knowledge, support, and access
Biratu and Lindstrom (2000)	The influence of husbands' approval on women's use of prenatal care: Results from Yirgalem and Jimma towns, Southwest Ethiopia	Yirgalem town, surrounding rural locations (SNNPR), and Jimma town (Oromia)	<i>Ethiop J Health Dev</i> 20(2): 84-92	Cross-sectional community-based survey	<ul style="list-style-type: none"> Husband's approval has greater effect on prenatal care utilization than whether pregnancy is unintended/intended, regardless of expectant mother's level of education Impact of a husband's approval on prenatal care is greatest among women under the age of 20
Mehryarkarim, Betemariam and Yalew (2010)	Programmatic correlates of maternal healthcare seeking behaviors in Ethiopia	Amhara, Oromia, SNNPR, and Tigray	<i>Ethiop J Health Dev</i> 24: 92-99	Cross-sectional community-based survey	<ul style="list-style-type: none"> Kebeles (neighborhoods) with relatively high prevalence of model families have: higher rate of household visits by health extension workers AND higher rate of household visits by voluntary community health workers. This is associated with improved ANC use, and postnatal care visits Impacts of Health Extension Program strategies on maternal health care use were statistically significant, but not enough to reach Ethiopia's maternal mortality reduction targets
Yigzaw (2005)	An exploratory study on the contexts of domestic violence in Gondar town, Northwest Ethiopia	Amhara	School of Graduate Studies, Addis Ababa University, master's thesis	Qualitative	<ul style="list-style-type: none"> Study explores presence of male dominance/patriarchy and the subsequent power system Proves the presence of cultural and religious elements that serve to maintain subordination of women and perpetuate domestic violence Demonstrates culture that nurtures the dominant model of males by portraying men as providers, administrators, and correctional officers