

**ADDIS ABABA UNIVERSITY COLLEGE OF HEALTH SCIENCE
DEPARTMENT OF NURSING AND MIDWIFERY**

**FACTORS AFFECTING CHOICE OF DELIVERY PLACE AMONG
WOMEN'S IN HARAMAYA WOREDA, EAST HARARGE
ADMINISTRATIVE ZONE ETHIOPIA,2011**

BY

HAYMANOT MEZMUR (BScN)

**THESIS SUBMITTED TO THE SCHOOL OF GRADUATE STUDIES ADDIS ABABA
UNIVERSITY IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE
DEGREE OF MASTERS OF SCIENCE IN REPRODUCTIVE AND MATERNAL
HEALTH NURSING.**

ADVISOR: BERHANU DESALGNE (BSc, MPH)

**MAY, 2011
ADDIS ABABA, ETHIOPIA**

Acknowledgment

First and for most my deepest appreciation goes to the Almighty God for His divine protection and guidance given me to complete this thesis.

My deepest thanks go to my advisor Ato Berhanu Desalgne for his important comments and unreserved encouragements have made it possible the completion of this research.

I express my profound gratitude and appreciation to my husband, sisters and brothers. I feel proud of them. I thank them very much for their strength, motivation and trust that gave me hope and confidence. I am sure; this process would not have been possible without their help. Thank you my family.

Last but not least my heart felt thanks to East Hararge Zone health bureau and to all the staff of Haramaya woreda health office, all health workers and communities. Many thanks also go to all the respondents and data collectors.

Table of contents

Contents	Pages
Acknowledgment	i
Table of contents	ii
List of tables.....	iv
List of figures	v
List of abbreviations	vi
Abstract.....	vii
1. Introduction.....	1
1.1 Back ground	1
1.2 Statement of the problem	4
1.3 Significance of the study	6
2. Literature review	7
2.1 Different countries experience regarding place of birth.....	7
2.2. Home verses institutional delivery.....	9
2.3. Reasons for choice of delivery place	10
2.4. Conceptual Model the Health Behavior Model	17
3. Objectives	19
3.1 General objective	19
3.2 Specific objectives	19
4. Methods and materials	20
4.1 Study area.....	20
4.2. Study design	20
4.3. Study period	20
4.4. Source population	20
4.5. Study population.....	20
4.6. Inclusion criteria	21

4.7. Exclusion criteria	21
4.8. Sample size determination.....	21
4.9. Sampling procedure	22
4.10. Method of data collection.....	23
4.11. Variables of the study	24
4.12. Operational definition	25
4.13. Data quality control.....	25
4.14. Data processing and analysis methods	26
4.15. Ethical Considerations	27
5. Result	28
6. Discussion	51
7. Strength and limitation of the study.....	57
8. Conclusions	57
9. Recommendation.....	59
10. Reference	61
Annex1. English version consent form and questioners	
Annex2. Affan Oromo version consent form and questioners	
Annex3.English version FGDs guide	
Annex4.Affan Oromo version FGDs guide	
Annex5. Declaration form	

List of tables

Tables	Pages
Table1.Socio-demographic characteristics of study participants.....	28
Table2.Women’s reasons for choice of delivery place.....	32
Table3. Women decision making and source of information.....	33
Table4.Women past obstetrical history.....	34
Table5.Health service factors.....	36
Table6.Association of selected socio-demographic variables with women choice of delivery place.....	38
Table7. Association of selected obstetric factors with women choice of delivery place.....	41
Table8.Cross tabulation of women having health information on the benefit of give birth at health institution Vs choice of delivery place	42
Table9. The association between traditional remedies and geographical accessibility of health care with women choice of delivery place.....	43
Table10.The association between health service factors with women choice of delivery place	44

List of figures

Figure	Pages
Fig1. Conceptual model.....	18
Fig2. Schematic presentation of sampling procedure	23
Fig3. Pie chart shows women choice of delivery place	31

List of abbreviations

ANC	Antenatal Care
COC	Center of Competency
ETB	Ethiopian Birr
FGD	Focused Group Discussion
HEW	Health Extension Workers
HEP	Health Extension Program
HRH	Human Resource for Health
HF	Health Facility
HW	Health Workers
IMCC	International Medical Corporation Committee
MCH	Maternal and Child Health
MDG	Millennium Development Goals
SAVE	Sustainable Aid through Voluntary Establishment
SPSS	Statistical Package for Social Science
TBA	Traditional Birth Attendant
UK	United Kingdom
USA	United States of America
WHO	World Health Organization

Abstract

Back ground: Majority of the maternal deaths that occur especially in developing countries are avoidable or preventable. Choice and preference for childbirth location are not merely a matter of women's unrestricted ability to specify preference and act accordingly, but are shaped and modified by the tempering socio-economic effects of the contextual environment in which they arise. They are likely to be at least partially determined by available options, possibilities, and limitations on the realization of preference.

Objective: This study was aimed to assess the factors affecting women's choice of delivery place. Like the role of, socio-economic, demographic factors and past obstetrical factors in determining the place of delivery among women in Haramaya woreda.

Method: A community based cross-sectional study combined both quantitative and qualitative method was employed from October, 2010-May, 2011. The quantitative data was collected from 458 women of age 15-49 that experienced delivery and pregnancy. Multistage sampling technique was utilized to select the study subjects for quantitative survey. Structured interviewer administered questionnaire was used to collect data. For the qualitative study focus group discussions (FGDs) was chosen as the tool for data collection. The participants were purposely selected from different kebeles in the study area. Two FGDs were conducted. Trained supervisors, data collectors and note takers were used in data collection. Quantitative data was entered using Epi Info version 3.5.1 and was analyzed using SPSS Version 13 statistical package. Descriptive statistics and associations between variables were assessed by using multivariate regression both crud odds Ratios and adjusted odds ratio were done at 95% CIs. Qualitative data was transcribed, translated, coded, classified segment by segment, categories and themes were developed to answer the research questions.

Results: A total of 458 women participated in the quantitative survey. One third of women were age 35 and above, 118(25.8%) were aged between 25-29years. 247(53.9%) of women were illiterate, 109(23.8%) get primary education, only 55(12%) attend secondary education and above. 58.7% of women choice home as delivery place and 41.3% choice health facilities. Age, education of women, education of husband, occupation of husband, attending antenatal care, having health information, traditional remedies during child birth at home and provider approach to ward laboring women were found significant predictors on the choice of delivery place. The FGDs identified distance, transport problem, lack of decision making power, economic constraint and need of privacy and support person as important predictors for choice of delivery place.

Conclusion and recommendations: This study confirmed that age of the respondent, women education, husband education, husband occupation, attending ANC, having information on the benefit of health institution delivery, reliance on tradition, distance and provider approach toward laboring women were significant predictors for the choice of women delivery place. More effort should be given to educate women. The government and other responsible bodies should make efforts to increase community based health education, awareness creation and improve better access to information for women regarding maternal health care will be imperative. Zonal Health Administration in collaboration with the woreda should provide means of transport (ambulance) to encourage referral between communities and health care providers.

Key words: Delivery, place, factors

1. Introduction

1.1 Back ground

The World Health Organization (WHO) estimates that about 536,000 women of reproductive age die each year from pregnancy related complications. Nearly all of these deaths (99%) occur in the developing world. These deaths are almost equally divided between Africa (251,000) and Asia (253,000), with about 4% (22,000) occurring in Latin America and the Caribbean and less than 1% (2,500) in the more developed regions of the world. Maternal mortality rate also shows the same disparity among regions .The world figure is estimated to be 400 per 100,000 live births. It is higher in Africa (830), followed by Asia (330), Oceania (240), Latin America and the Caribbean (190), and at the bottom the developed countries (20) .Globally, at least 160 million women become pregnant annually (1).

Despite several decades of global health initiatives focused on maternal health, maternal mortality has proven to be an intractable problem. The Millennium Development Goal indicator of maternal health, the maternal mortality ratio, has remained essentially unchanged over the past 15 years, with an estimated mean annual decline of 0.4% since 1990 far short of the progress required to meet the Millennium Development Goal target of 75% reduction by 2015(2).

There is now widespread consensus that a principal effective intervention for reducing maternal mortality is the universal use of skilled birth attendants based in functioning health care facilities who are trained to diagnose obstetric complications and manage or refer them (3). Attended child birth is a key component of most developing countries' primary care strategies and a core part of the essential package of health services (4).

Developing countries that have managed to reduce maternal mortality, such as Malaysia and Sri Lanka, have done so through high-level, sustained political commitment to the survival of mothers, by professionalizing delivery care, and by improving health system infrastructure to respond to obstetric complications (5).

Ethiopia is predominantly rural, low-income country in Eastern Africa. The most recent estimate of Ethiopia's maternal mortality ratio of 673 per 100,000 live births, however, remains among the highest in the world and has fallen little if at all since 2001. Maternal mortality in Ethiopia is likely linked both to extremely low utilization of skilled birth attendants, low facility delivery and to even lower use of emergency obstetric care. The 2005 Demographic and Health Survey found that only 25% of all Ethiopian mothers living in rural areas received any antenatal care from a health professional in their last pregnancy, 3% delivered in a health facility, and 0.3% delivered by Caesarean section(6).

Promoting delivery in health facilities is a core strategy to reduce maternal mortality in Ethiopia (7). Choice and preference for childbirth location are not merely a matter of women's unrestricted ability to specify preference and act accordingly, but are shaped and modified by the tempering socio-economic effects of the contextual environment in which they arise. They are likely to be at least partially determined by available options, possibilities, and limitations on the realization of preference (8).

Haramaya woreda is located in East Hararge Administrative zone, found in Oromia region. The need for this study comes from the fact that despite a high antenatal attendances of pregnant women (78 %) and health education interventions through MCH clinics employed to motivate mothers on the importance of delivering in health units, health facility deliveries, in Haramaya woreda are still low being 1.2%, also there is no study that has been done in the woreda to find

out the determinants therefore it is important to identify the factors which lead to either home or health institution delivery. The result of this research will be used as a guide for zonal administrator to take measure on and solve the problem.

1.2 Statement of the problem

The place of delivery and its determinants have been on the research agenda for a long time. Birth is an event of great importance in family life (9). Majority of the maternal deaths that occur are avoidable or preventable. An emerging consensus said that, these deaths can be prevented if deliveries are managed by skill attendants. However it has been estimated that only 50% of women in the world have access to such skilled care. Maternal deaths are strongly associated with inadequate medical care at the time of delivery. Several factors have been identified as barriers to access to skilled care by women especially in developing countries; these include unavailability of the services, inadequate number of skilled personnel, geographical inaccessibility and poor quality of care, financial constraints, no perceived need for such services, preference for home delivery because it is much less expensive(10).

A number of socio-demographic characteristics of the individual affect the underlying tendency to seek care in this regard, good examples is maternal age, which have been examined as determinants of health care use .The greater confidence and experience of the older and higher parity women, together with greater responsibilities within the household and for child care, have been suggested as explanatory factors for their tendency to use services less frequently .Maternal education has also been shown to be positively associated with the utilization of maternity care services(11).

Most obstetric complications occur around the time of delivery and cannot be predicted. Therefore it is important that all pregnant women have access to a skilled attendant, i.e. someone with midwifery skills, who is able to manage a normal delivery and who can recognize and manage obstetric complications, or refer in time if needed. Skilled attendance at delivery is advocated as the single most important factor in preventing maternal deaths and the proportion of

births attended by skilled health personnel is one of the indicators for Millennium Development Goal 5(MDG) (11).

Ethiopia is well placed as a potential candidate for the MDG. The government show its commitments for achieving these goals launched ambition and acceleration development program with special emphasis for human resources for health (HRH) such as health extension program and accelerated health officers training program and the expansion of primary health care coverage through building about 15,000 health post by 2009(12).

Data show that antenatal coverage in Ethiopia is only 67.7 percent. Delivery and postnatal care services are only 18.4 percent and 34.3 percent, respectively (13).This low utilization of health care services may give some indication of service coverage in the country. Women trust their experience, the experience of relatives, friend or neighbor. Personal preference, fear or desires may lead women to choose different from that suggested by the evidence. A problem solve approach 'bottom-up' start with the consumer to identify deficiencies in the system as it stands from women's perspective should demonstrate in maternity care provision(14).

Pregnancy is a wonderful and personal experience. There is no way to know how quickly one will progress through labour, what complications that may arise, and what emotions one will go through during the process. Some of the complications that arise during child birth can be avoided simply by making the right choice in terms of preferred place of delivery. Therefore, the aim of this study is to elucidate the factors that determine women's choice for place of delivery in Haramaya woreda. There for this research will use as reference for the region to improve the service.

1.3 Significance of the study

The information resulting from this research will be used as first hand information to plan appropriate interventions towards improving safe motherhood services in the woreda. It will help to indicate the direction of intervention to the health workers and also help for improving health facility infrastructure, to take corrective measure to the existing service.

Implication for nursing

Family centered maternity care is consistent with the value and goals of nursing in general. As a maternity nurse we have to listen to the consumer's views to deliver the care that is congruent with the person needs and expectation, to take the lead in shaping the maternity care implementation programs. It is possible that nursing had been more in touch with costumer's views about birth place that would have been less conflict and more rapid progress in establishing family centered care.

2. Literature review

Place of delivery is an important aspect reproductive health care. The place of delivery often determines the quality of care received by the mother and infant and is an important factor in differential risks of preinatal mortality .In delivering essential obstetric services there are four basic model of care deliveries are conducted at home by community member relatives who receive brief training, deliveries takes place at home but it is performed by professional, deliveries is performed by a professional in a basic essential obstetric care facility or all women give birth in a comprehensive essential obstetric care facility with the help of professional(15).

2.1 Different countries experience regarding place of birth

The safety and women's right of choice to home delivery verses hospital delivery is continuously debated in the developed countries but undesirable outcome of home delivery such as high maternity and prenatal mortality is documented in developing countries .A study in Netherlands examined that women's of high socio-economic states delivered more often at home irrespective of other factors(16).

The rate of home births with in the UK remains low at approximately 2%, but it is believed that if women had true choice the rate would be around 8-10%.Furthermore, the studies into women's descriptions of home birth experiences have produced qualitative data on increased sense of control, empowerment and self esteem, and an overwhelming preference for home birth.As a trend, the demand for birth centres and midwifery services varies in different countries. Birth centres and midwifery services grew substantially over the last decades of the 20th century in the United States of America (USA).In Turkey, home delivery represents only a small fraction of the total reported deliveries, while in Tunisia, community health centres staffed by university-

educated midwives are well dispersed throughout the country and most deliveries are in these health centres, or in local hospitals or clinics (16).

The Tanzanian health system comprises a well-established network of health facilities throughout the country, and the government encourages all pregnant women deliver at health facilities. The government has also mandated that maternal and child health services, including deliveries, be exempted from fees at any government facility. The reality, however, is that women are asked to bring delivery kits, such as razorblade, gloves and cotton wool.

In Tanzania, although health facilities are closer to rural households than in many African countries, more than half of children are delivered at home despite a high coverage (94%) of antenatal care (ANC) (17).

Data from the Ghana Demographic and Health Survey (2003) show that medically trained providers assisted with 47% of deliveries, traditional birth attendants (TBA) assisted with 31%, and relatives or friends attended to 19% of deliveries. Although maternal health care utilization is essential for further improvement of maternal and child health little is known about the current magnitude of use and factors influencing the use of these services in Ghana(18).

In Nigeria only 13.5% of the estimated annual birth took place in health facility even 53.6% of those in facility deliveries taking place in private health facilities there is considerable preference delivering in church mission houses or spiritual homes in cross-river and for home deliveries supervised by an older women in the northern –west region(17).

In Ethiopia, only 18.4% of the deliveries are attended by health professionals. The rest 81.6% deliveries took place at home. This situation well explains the maternal mortality ratio of 673 per

100,000 live births, which is one of the highest in the world. Studies revealed that hemorrhage, hypertensive disorders and ruptured uterus were among the causes of maternal deaths (19).

In Bangladesh 52.5 percent of the adolescents received antenatal care services, only 14.4 percent sought assistance from skilled birth assistance during childbirth and 10.7 percent of the babies were delivered at medically-facilitated places. Women and their families were reluctant to spend money on some thing that was perceived to be a natural event that can be practices at home at negligible expanse (20).

In Sri Lanka, over 93% of the women have access to basic health care. Health services were provided free of charge. Maternal and child health services were available at the community level as part of an integrated reproductive health service. This has contributed immensely to a reduction in maternal and infant mortalities. Women from the poorest quintile were three times more likely than women in the richest quintile to undergo home delivery without trained attendants (21).

2.2. Home verses institutional delivery

Globally, it is estimated that 34% of the mothers deliver with no skilled attendant; this means there are 45 million births occurring at home without skilled health personnel each year. Skilled attendants assist in more than 99% of births in developed countries compared with 62% in developing countries. In five countries including Ethiopia the percentage drops to less than 20%.

The study conducted in Tigray, Ethiopia demonstrated that institutional delivery service utilization was very low. In the last five years only 4.1% of mothers gave birth in the health facility for their recent child. The majority of births 95.9% took place at home compared to 4.1% births at different health facilities of the district (1).

A study conducted on Syrian women's preferences for birth attendant and birth Place, a minority of women (5–10%) expressed no preferences related to childbirth .Most women (65.8%) preferred to give birth in hospital, and a similar majority preferred to be attended by doctors compared with midwives (60.4% vs 21.2%)(22).

Study on factors influencing choice of delivery sites in Rakai district Uganda noted that 44% of the sample delivered at home, 17% at traditional birth attendant's place, 32% at public health units and 7% at private clinics (23).

A study conducted in Nepal on 114 women's shows that Sixty seven (58.8%) women had planned for home delivery whereas only 47 (41.2%) had chosen hospital delivery and delivered at home due to various reasons (9).

Traditionally, children in Ghana are delivered at home with the assistance of birth attendants or elderly women of the community. An important component of efforts to reduce the health risks of mothers and children is to increase the proportion of babies delivered under medical supervision. The level of assistance a woman receives during the birth of her child has important health consequences for both mother and child. Births delivered at home are more likely to be delivered without professional assistance, whereas births delivered at a health facility are delivered by trained medical personnel. Medically assisted deliveries continue to be low in Ghana, with less than 50% benefiting from professional delivery assistance over the past 15 years (24).

2.3. Reasons for choice of delivery place

A qualitative study conducted by IMCC and SAVE-in west region of Ghana reported that, during women's interviews, it was said that the health staff sometimes has a rough behavior towards the

women e.g. slapping their thighs during labor, yelling at them when they come in a late stage of labor or do something wrong etc. The women said this keeps them away from coming to deliver at the clinic. I will not go to the clinic because of the nurses there. They are not kind to pregnant woman. If traditional birth attendants are giving the same treatment, why should I go to the clinic? (24).

The various dimensions of autonomy, such as position in the household, financial independence, mobility and decision-making power regarding one's own healthcare, may all impact on health facility use. In many countries, women cannot decide on their own to seek care, but have to seek permission from a husband or mother-in-law. Furthermore, women may lack control over material resources needed to pay for expenses, their mobility may be restricted or they may lack access to vehicles or even bicycles or donkeys' .However, women's informal power in the household may mitigate some of the above. The interpretation of various measures of autonomy depends on the context – women who take decisions alone in a context where this is unusual, "might be relatively isolated, unsupported individuals and not autonomous agents" As such they may have resource constraints and be less likely to use service(16).

In a cross-sectional population-based survey to determine the utilization of approved health facility for delivery by mothers in Ife-Ife, Nigeria 49% delivered outside the health facility. The prominent reasons given for the non- utilization of health facilities were time of occurrence of labor, and difficulty with transportation. (25).

A cross-sectional study in Basra 353 women, 16.1% delivered at home, while 83.9% delivered in hospital. The main reasons for choosing hospital delivery were safety and security (96.6% of the women), better hygiene (66.6%) and because of medical advice (63.2%).The main reasons for the choice of home delivery were social support and privacy (98.2%). The women were

consistent in their choice of delivery place across different pregnancies, previous, present and future (15).

The attitude of health workers is one factor that significantly influenced the choice of place of delivery. In a study on obstetric services utilization in northern Transvaal, South Africa, revealed that negative staff attitude contributed 9.8% to the reasons for home delivery. In a study on socio-economic factors responsible for poor utilization of the primary health care in rural Nigeria, found that unfriendly attitude of health workers contributed 3.6% of the major factors that cause non-utilization. Positive interaction between expectant women and health care providers however lead to client confidence and compliance. In a study on the role of skilled birth attendants in increasing supervised delivery in the West Gonja district of Northern region, Ghana shows that the women complained about the unfriendly behavior of some health providers. They mentioned being harsh, insolent and abusive during labor as common behavior. The providers give preferential treatment to clients who were expensively dressed up (26).

The educational status of the women and that of their partners had strong relationship with the choice of delivery place. Educated women presumably have better sense of appreciation and concern for their health. The study conducted in Tigray shows that mothers who had educated family member/s were positively influenced to select health facility as a delivery place. The probability of a mother who had a family member who at least attended a secondary education of giving birth at a health facility was 11 times higher than those who did not have. One interesting finding is that women with secondary education (38%) were more likely to use the health facility for delivery place than illiterate mothers (3%). Mothers with secondary education were more likely to select a health facility for delivery place than those who were illiterate (1). Receiving ANC has appeared as a significant predictor on the use of institutional delivery and skilled

assistance. Mothers who attended antenatal follow up for the recent pregnancy have five times higher chances of delivering at a health facility and approximately 2.8 times higher chance to be assisted by skilled birth attendants(1).

Study conducted in Nigeria shows that women's with formal education tend to deliver in the hospital while those with no formal education tend to deliver at home. The husband's occupational status was also found to be another determinant of place of delivery as wives of employed husbands tend to deliver at the hospital Among 137 mothers who delivered in the Hospital, 126 of them (92%), their husbands are engaged in one occupation or the other (27).

Study conducted in Syrian women indicate that the demographic variables that were statistically related to stated preference for a hospital delivery included the woman's education (82.6% of literate women preferred a hospital delivery compared with 65.5% among illiterate women, husband's education (80.4% of women whose husbands were literate preferred hospital delivery compared with 70.5% of women whose husbands were illiterate, and the woman's age (89.1% of younger women age <20 years preferred hospital delivery compared with 60.7% of women age \geq 40 years (22).

Maternity is viewed variedly in culture. The health of the pregnant woman is managed traditionally based on several pre-determined and experienced beliefs within specific cultural settings (28).A qualitative study conducted in Ghana shows that, women's says that, a woman will have to prove herself to a "real" woman by delivering alone. This is thought to be a sign of true womanhood. Women who do not utilize the facility for delivery they use that as a way of proving their true women status and try to look down upon those who utilize the facility and consider them as very lazy and inferior. Some men also consider women who deliver at the facility as inferior, and also men think that he is lucky if his wives deliver at home. The society is

built up in a way that men are the decision makers. However when it comes to pregnancy and delivery the mother in laws have the largest mandate "all we know about pregnancy and delivery is that when our wives are pregnant, the first person to know is the mother in law, and if possible the husband is also made to know that the wife is pregnant. It is the mother in law that takes charge of her until she gives birth (25).

In many settings, the physical distance between services and women is associated with service utilization. A significant influence of distance to the health centers on prenatal visits as well as child delivery has been found by many studies. The physical distance from their house to the health care centers imposes another cost to the pregnant women that is opportunity cost time spent obtaining these services and accessibility of health service in terms of location and distance is very important in the use of reproductive health services, also argued that the distance to the maternity hospital as having causal role for the place of delivery. In Tanzania, 84% of women who gave birth at home intended to deliver at a health facility but did not due to distance and lack of transportation .In Kenya, a study showed that the most important significant predictors of choosing an informal delivery setting (home) are the household's distance from the nearest maternity centre(29)

Study on women's in semi-urban settlement of Zaira, Northern part of Nigeria shows that financial problem was the most common reason followed by ignorance and transportation problem. High proportion of women (87.6%) was attended by an untrained family member, friend or neighbor, and 7% of women delivered completely unattended. Women were brought to the hospital by family member 59.6% other than husband and 8.8% were accompanied by neighbors/friends. Most of these women were brought with retained placenta, primary post partum hemorrhage (24). Study done in Kalimantan Indonesia where preference to home

delivery among pregnant women was high was found due to poor quality of care which was an important contributor to excessive maternal mortality in many countries (30).

In India, a study of analysis of choice of delivery location showed that maternal and, paternal education, and scheduled caste status were the predisposing factors that determined the choice of private facilities, public and home deliveries (31). In a similar way, a study from Pakistan showed that family size, parity, educational status and occupation of the head of the family were knowledge of maternal health also associated with health seeking behavior in addition to age, gender and marital status (32). A study from rural Tanzania identified that ethnicity, gender of the household head, mother's education, mother's age at child birth, socio-economic and quality of services status were important independent factors in determining the choice of delivery place. Sudden onset of labour or short labour were affecting decisions towards selecting the delivery place. Selecting health facility for delivery was perceived to be more desirable for prolonged labour (33).

An explorative study of factors influencing mother's choice of place of delivery in rural Malawi shows that unsatisfactory availability of skilled delivery care in terms of distance, transport, cost and poor approach of health workers were found to be among the most consistent associated factors with the choice of health facilities for delivery. One of the health workers explained: "Most of the women, they stay very far from the hospital, Some places there are no labour transport, no buses they use bicycles, so it's a problem when the mother starts the labor. That is why most of the women just deliver at the TBA'S (traditional birth attendant), they can't reach the hospital" (34).

Study done in Bhutan shows that age is seen to be positively associated with the place of delivery. The women in the age group 35-49 years are expectantly seen to deliver two times

more in the health centers than those of age group 15-24 years. Compared to the women aged between 15-24 years, the women who are 25-34 years old are just 1.24 times more likely to deliver in health institutions. With out much significance, the older women are found to be more likely to deliver in health centers than their counterpart (29).

Study conducted among women in rural Kebele of Debre markose town shows that monthly household income was statically associated with preference of delivery place. Women who earn less than 320 -600 ETB were more likely to prefer home deliver four times when compared to women who earn greater than 1000 ETB (35). Information on benefit of health service delivery is also contributes to the selection of delivery place. When the women who get health information increases the probabilities of preferring health institution delivery five times than those who did not get the information mean that decrease the probability of preferring home delivery(1)

In summary, the above studies have identified that the main determinants for women's choice of delivery place include maternal education, husband education, socio-economic status, distance, and decision making power, health staff attitude to ward laboring mother and socio cultural factors.

2.4. Conceptual Model the Health Behavior Model

Andersen's Behavioral Model of Health Services Utilization was used as the conceptual framework. This model has been used extensively in both developing and developed countries to understand health services utilization. The model classifies factors that affect health services utilization into three groups: predisposing, enabling and need factors. Among the predisposing factors, demographic characteristics (age, gender, marital status) reflect the tendency of individuals to use services. Social structure (education, occupation, and race/ethnicity) measures the ability of the individual to cope with the problem, the resources available in the community, and the state of the physical environment. Health beliefs are values and knowledge about health and the health care system that influence utilization and these include general attitudes towards medical care, physicians, and disease. Enabling factors, both personal and organizational, must be present for service utilization, and these represent the actual ability of the individual to obtain health services. Personal enabling factors include income, regular source of care, travel and waiting times; organizational enabling factors include the availability of health care providers and their spatial distribution. The most immediate cause of health services utilization is need. This judgment about need can be made by the individual himself or family caregivers (perceived need), and can be estimated by a self assessment of health status, symptoms experienced during a period of time, or number of symptoms during a period of time.

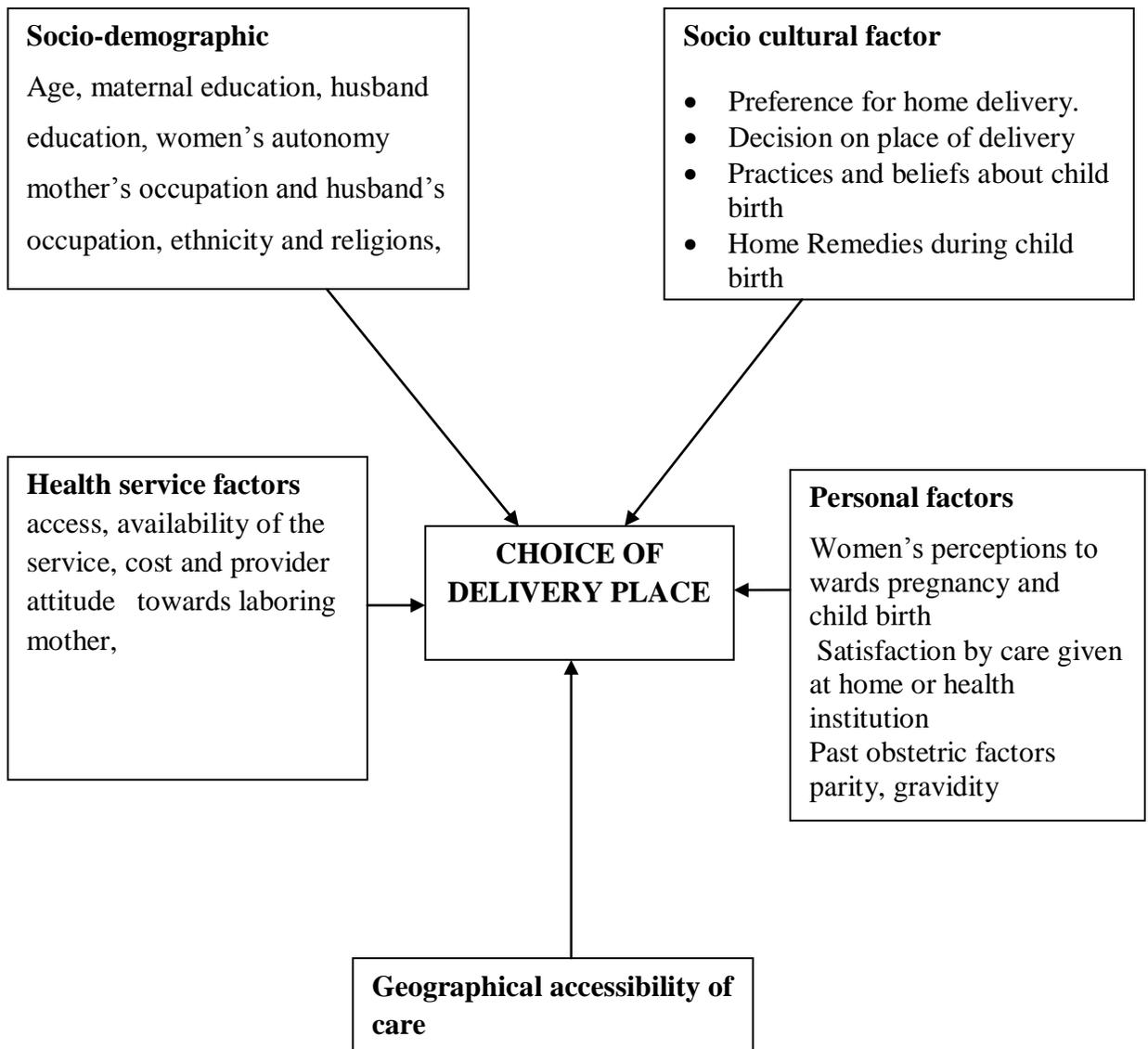


Fig.1. Conceptual frame work on factors affecting women's choice of delivery place

3. Objectives

3.1 General objective

To assess factors affecting women's choice of delivery place in Haramaya woreda in, 2011.

3.2 Specific objectives

- To determine the distribution of socio demographic characteristics of study participants in Haramaya woreda
- To identify women's choice of delivery place in Haramaya woreda.
- To explore the reasons of women' choice of delivery place in Haramaya woreda.
- To determine the association between women's choice of delivery place and its determinant in Haramaya woreda.

4. Methods and materials

4.1 Study area

The study was conducted in Haramaya woreda which is located in Oromia regional state of East Hararge zone, across the high way from Addis Ababa to Harar 508 km from Addis and 19km ahead to reach Harar. According to recent Ethiopia Censes Authorization data the total population of East Hararge zone is around 2,739,390 of this 2,518,363(87.3%) residence in rural and 221,027(12.7%) in urban. Male population is about 1,391,017(50.8%) and female population is 1, 348, 373, (49.2%). Regarding health service distribution 2 district hospitals, 20 health centers and 402 health posts found in the region. According to East Hararge Zonal Health report in 2009 the antenatal care (ANC), institutional delivery and of postnatal service coverage was 74%, 0.8% and 47% respectively.

The total population of Haramaya woreda is 271, 394 of whom 138,376(51%) is male and 133,018(49%) is female. There are four health centers, twenty seven health posts and four private drug stores and clinics. The woreda contains 4 urban Kebeles and 33 rural Kebeles. There are two high schools and one preparatory school, the known Haramaya University is also found in this woreda.

4.2. Study design:-A descriptive community based cross sectional study which employed both quantitative and qualitative method was used.

4.3. Study period:-October, 2010 -May, 2011.

4.4. Source population:-All women of child bearing age (15-49 year) in Harmaya woreda.

4.5. Study population:-Women of child bearing age groups who had experience in pregnancy and delivery in selected kebeles.

4.6. Inclusion criteria:-women of age 15-49 years that had experience in pregnancy and delivery.

4.7. Exclusion criteria:-women who were never been pregnant, who weren't physically and mentally capable to be interviewed and who were not willing to be interviewed.

4.8. Sample size determination

The sample size was determined using single population proportion formula $n = z^2 (pq)/d^2$

Proportion of deliveries attended by skilled birth personnel of Oromia region is 16.3% (Health and health indicators 2009)

Where n =sample size

Z =Reliability Coefficient with 95%confidence interval

P =Population variance available from previous data $q=1-p$

d = Standard error allowed

If the value of p is 0.163 and the desired error chosen to be 0.05 with the reliability coefficient of 1.96% certainly ($z=1.96$)

Then, $n = \frac{[(1.96)^2 (0.163 * 0.837)]}{(0.05)^2}$

$$(0.05)^2$$

$N=210$ multiplying by 2(design effect) =420+10% none respondent rate 42= 462

4.9. Sampling procedure

Quantitative part

Multistage sampling was used in this study. The primary sampling units, the Kebeles were selected by simple random sampling, one Keble from 4 urban Kebeles and three Kebeles from 33 rural Kebeles were selected. The sample size was distributed to Kebeles by population proportion to size (PPS) formula. The secondary sampling units, the house holds in the selected Kebeles were selected by using systematic sampling procedure with a random start. The interval was determined by the division of total number of house holds in the study area estimated to be 6523 by the sample number 462 which result in an interval of 14th house holds. Interviews were conducted by face to face at women's house of those who were eligible for the study.

Qualitative part

Purposive sampling was used to select respondents from four Kebeles for a focus group discussion. A series of two focus group discussions were conducted; 18 women who were volunteered and one TBA and one TTBA in the selected study site were participated in the discussions. The recruitment of the participants was assisted by the chairpersons of the kebeles. The study participants had who practice delivery and pregnancy.

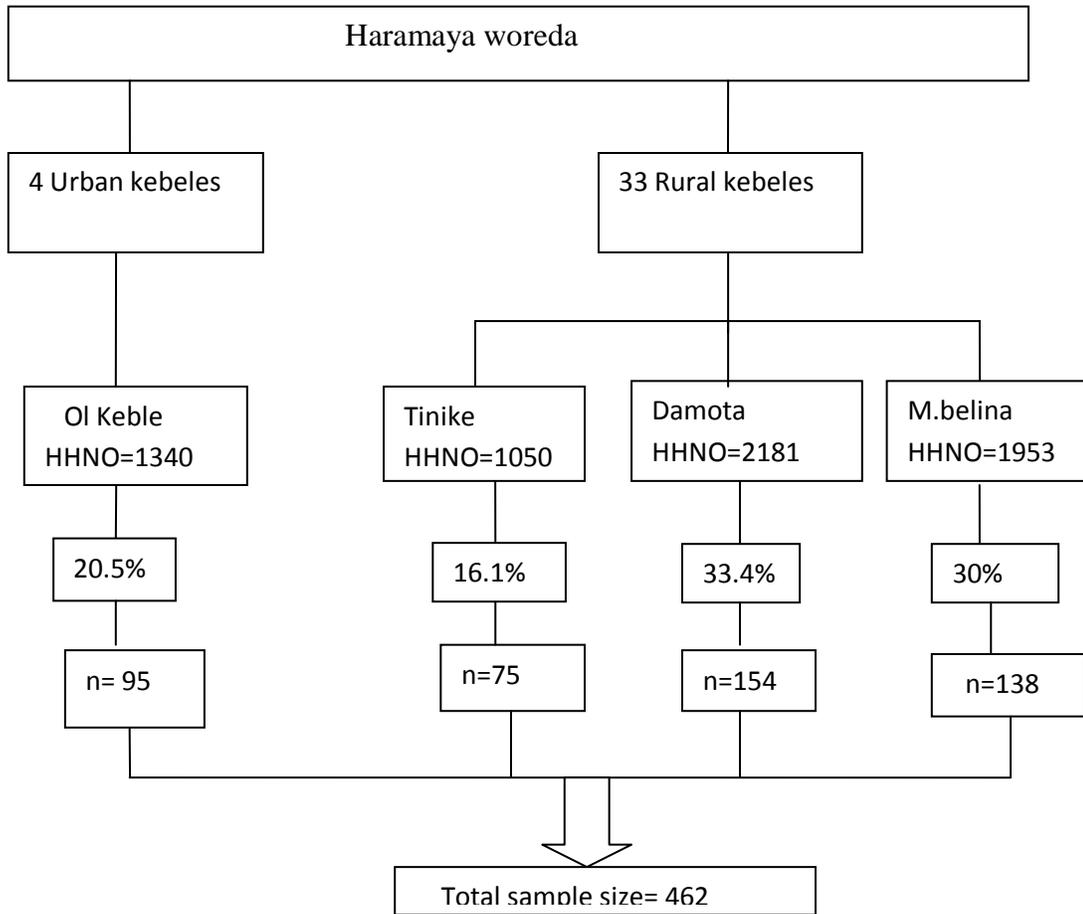


Fig.2 Schematic presentation of sampling procedure

4.10. Method of data collection

Quantitative survey

The survey questionnaire was first prepared in English language and then translated to Affan Oromo. The interview techniques were employed for the selected respondents in the chosen households. Explanation was given on the purpose of the study and the importance of their involvement then respondents who volunteered were interviewed face- to- face using structured and pretested questionnaires. The interviewers were nurses who pass COC examination and who know and speak the local language. They were trained on objective of the study, method of data collection and discussed thoroughly on the tools prepared for data collection. The supervisors

were health professionals who were trained by the researcher. During the training days explanation was given on the purpose of the study and discussed on the tool designed for data collection, how to implement, potential problems that can arise and how to solve them.

Qualitative survey

Focus group discussion (FGD) was chosen as the tool for data collection. It aimed to explore and to share the experiences, thoughts, feelings, attitudes and ideas of participants on determinant to choice delivery place. Two series of FGDs were held by 20 women, each contained 10 participants. The group members were not knows each other and homogenous in terms of gender and fulfilled inclusion criteria .Before the FGDs, the moderator introduced all participants, explained the general purpose of the study and topic of the discussions. The participants were informed about the tape-recorder and permission to be recorded was requested. Informed verbal consent was obtained from all individuals participating in the discussion. The FGDs generally took place at the nearest school and health facility. The sessions lasted 40-60 minutes. The researcher and other trained moderator and two note takers led the discussion and it was recorded using a tape recorder. Oromiffa was the language used in all the sessions. The moderators used the topic guide to direct the discussion and cover all of the relevant topics. The questions were selected in relation to the research objectives while taking into account local knowledge and cultural sensitivities.

4.11. Variables of the study

Dependent variable: women's choice of delivery place

Independent variables

Socio-demographic like age, maternal education, husband education, women's autonomy mother's occupation and husband's occupation, ethnicity and religions, income

Socio-cultural factors like traditional beliefs,

Geographical accessibility of care like distance to facility

Information availability

Health service factors like access, availability of the service, cost and provider attitude towards laboring mother.

Personal factors like women's perception towards pregnancy and child birth, satisfaction by the care given at health institution, women's previous experience

Past obstetrical profile of the mother, gravidity, parity

4.12. Operational definition

Parity:-total number of delivery that occur after 28 wks of gestational age.

Gravidity:-total numbers of pregnancies a woman have regardless of pregnancy outcome.

Income-for rural study participant calculated in kind the crop, cattle changed in to monetary forms.

Women's autonomy:-decision-making power of women on one's own choice of delivery place.

Attitude of health staff:-affective behavior of health staff towards clients and relatives.

Delivery place:-the place where women's give birth either home or health institution.

Age:-refers to the respondent's age in completed year at the time of survey.

Educational status: - refers to the highest level of education attended by the respondent during the time of survey.

Distance: - is measured in kilometers from home to the nearest health facility. According to WHO standard distance > 5km from home to health facilities are said to be far.

+4.13. Data quality control

The following key strategies were used for data quality control:-

- All data collection tools were translated to local language and back translated to English by people who have proficiency in translation to ensure its consistency.
- Training of data collectors and supervisors was made to enable them acquire basic skills necessary for data collection and supervision, respectively.
- Pre-testing of data collection tool was made in Adele Kebele on 10% of sampled women and based on the results of pre-testing necessary adjustment to the data collection tools was made.
- Spot check was done on the field.
- Filled questionnaires were checked daily.

4.14. Data processing and analysis methods

Quantitative part

Collected quantitative data was edited, coded and entered to Epi Info version 3.5.1 computer packages. It was then transported to SPSS version 13.0 for analysis. Frequencies and percentages of the responses were calculated. Associations between variables were assessed by using Odds Ratio, 95% Confidence Intervals and p-values. Multiple logistic-regressions were used to adjust for possible confounding variables.

Qualitative part

Participants' conversations were audio taped, transcribed verbatim and translated. Then the data were systematically coded segment by segment based on the research questions. Categories were formed and then based on the emerged relationships between the categories themes were developed and used to answer the research questions in conjunction with the data from the quantitative survey.

4.15. Ethical Considerations

Ethical approval and clearance was obtained from Addis Ababa University Medical Faculty Centralized School of Nursing Institutional Review Board Committee. Ethical clearance was also obtained from the administration of the East Hararge Zone Health offices and woreda health offices. To collect data from participants, explanation was given on the purpose of the study, the importance of their participation and true response. It was also explained that the study had no connection with individual affairs of respondents. Confidentiality of all data collected was kept. All sample populations were encouraged to participate in the study while at the same time they were told their right not to participate.

5. Result

Quantitative results

Table 1. Socio-demographic characteristics of study participants on the study factors affecting choice of delivery place in Haramaya woreda, East Hararge Zone Oromia region, 2011.(N=458)

Variable	n=458	Frequency	%
Age	15-19	6	1.3
	20-24	89	19.4
	25-29	118	25.8
	30-34	94	20.5
	35+	151	33
Marital Status	Married	368	80.3
	Divorced	35	7.7
	Separated	23	5
	Widowed	32	7
Religions	Muslim	402	87.8
	Orthodox	48	10.5
	Protestant	7	1.5
	Catholic	1	.2
Ethnicity	Oromo	399	87.1
	Amhara	37	8.1
	Gurage	18	3.9
	Tigre	2	0.4
	Adare	2	0.4
Respondent occupation	House wife	278	60.7
	Merchant	60	13.1
	Civil servant	42	9.2
	Farmer	33	7.2
	Daily labors	21	4.6
	Student's	24	5.2
Respondent's educational status.	Illiterate	247	53.9

	Read and writes	47	10.3
	Primary education (1-8)	109	23.8
	Secondary education and above	55	12
Husband occupation	Farmer	248	54.1
	Daily laborers	56	12.2
	Merchant	85	18.6
	Governmental employer	68	14.9
Husband educational status	Illiterate	192	41.9
	Read and writes	80	17.5
	Primary education (1-8)	86	18.8
	Secondary education and above	100	21.8
Monthly house hold income	<320	63	13.8
	320-600	135	29.5
	601-1000	127	27.7
	>1000	133	29
Estimated distance from home to the near by delivery institution			
	below 2km	99	21.6
	2-5km	8	1.7
	>5km	351	76.6

From the total of 462 sample 4 questioners were excluded as a result of incompleteness and inconsistencies. 458 women age 15-49 years who had experience pregnancy and delivery were participated in this study made the response rate 99.1%. Table 1 shows the socio-demographic characteristics of the study participants. One third of women were age 35 and above, 118(25.8%) were aged between 25-29years. The mean and median age of participants were 30.8, 30, respectively. Majority of them 368(80.3%) were married, 35(7.6%) were divorced and 32(7%) were widowed. About 402 (87.8%) of the total respondents were Muslim, 48(10.5%) were

Orthodox by religions. Among the respondent 399(87.1%) of them were Oromo, 37 (8.1%) were Amhara. Regarding educational status of the women 247(53.9%) of them were illiterate 109(23.8%) get primary education, only 55(12%) attend secondary education and above. About 278(60.7%) of them were house wife 60(13.1%) were merchant. With regard to husband educational status 192(41.9%) was found illiterate, 80(17.5%) able to read and write, 86 (18.8%) getting primary education, 100(21.8%) were attend secondary education and above. About 63(13.8%) of the women had monthly income less then 320ETB, 135(29.5%) earn between 320-600ETB. 351(76.6%) of the women where live above five kilometers from the nearby health institution, 99(21.6%) were live below two kilometers.

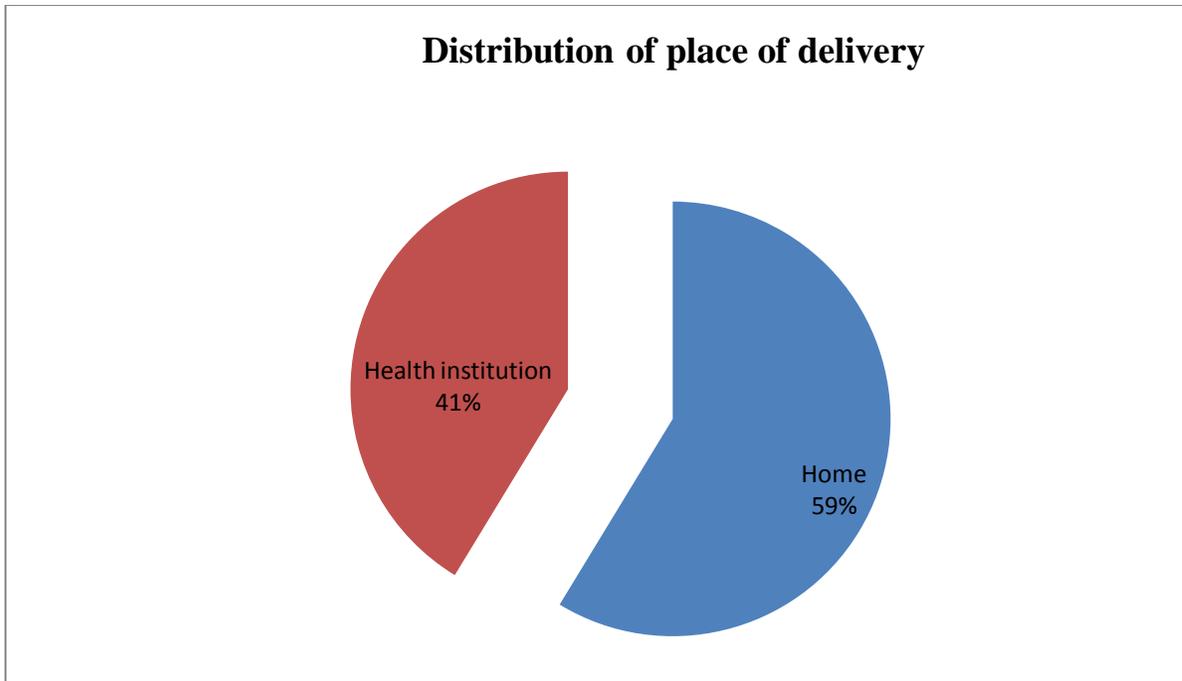


Fig.3 Distribution of choice of delivery place of women in Haramaya woreda, 2011

As the above pie chart depict that from the total respondents 269(58.7%) choice home as delivery place and 189(41.3%) choice health institution.

Table 2 .Women’s reasons for their choice of delivery place in Haramaya woreda, East Hararge Zone Oromia region, 2011. (N=458)

Variables	Frequency	Percentage
Reason for choosing home delivery		
Distance of health institution	228	49.8
Trust on TBA	224	48.9
No means of transportation	164	35.5
Not necessary for labor & delivery	99	21.6
I have no money to pay	51	11.1
I dislike the behavior of health workers	28	6.1
I have bad experience delivery in health institution	22	4.8
Reason for choosing health institution delivery		
Safe and clean delivery		
Better service	184	40.5
Fear of complication	144	31.4
I was informed to deliver in health unit	97	21.2
close to my home	86	18.8
The approach of health worker is best	11	2.4
	3	.7

*More than one possible answer was used

As above the table depict that from the respondents who choice home delivery were asked about the main reason for their choice among those 228(49.8%) of them replied due to distance from home to the health facility is too far, 224(48.8%) trust on TBA and 164(35.8%) said due to no means of transportation, 99(21.6%) were no need for labor and delivery. Most frequently reason giving for choice of health institution delivery was that the health facilities were safe and clean 184 (40.2%), for better service144(31.4%), 97(21.2%) replied due to fear of complication and 86(18.8%) of them said due to having information about health institution delivery.

Table 3. Women decision making and source of information on place of delivery in Haramaya woreda, East Hararge Zone Oromia region, 2011 (N=458)

Variables	Frequency	Percentage
Who decides on place of your delivery		
Just me	122	26.6
My husband	132	28.8
Both	155	33.8
TBA	49	10.7
Where did your last delivery take place		
Home	291	63.5
Health unit	176	36.5
Information about the benefit of delivery in health institution		
Yes	366	79.9
.No	92	20.1
what is the primary source of information		
Health workers	207	45.2
Friends, neighbors	99	21.6
Media	60	13.1

Concerning decision on place of delivery 155(33.8%) of respondents replied that both husband and wife made decision on place of delivery, 132(28.8%) replied decision was made by their husband, 122(26.6%) decided by themselves and the rest 49(10.7%) of them said decision was made by traditional birth attendant. Among the study participants 291(63.5%) of respondent said the last delivery took place at home where as 167(36.5%) of them give last birth at health unit. From the total study participants 336(79.9%) of them had information about the benefit of giving birth at health institution from them 207(45.2%) of respondents said that the primary source of

information were health workers, 99(21.6%) replied primary source of information were friends or neighbors and 60(13.1%) of them said media.

Table4. Women past obstetrical factors in Haramaya woreda, East Hararge Zone Oromia region, 2011.(N=458)

Variables	Frequency	Percentage
Age at first marriage		
<18	100	21.8
>18	358	78.2
Age at first pregnancy		
<18	81	17.7
>18	377	82.3
Gravidity/total number of pregnancy		
1	116	25.3
2-5	236	51.6
>5	106	23.1
Parity/total number of births		
1	120	26.2
2-5	238	52
>5	100	21.8
Did you attend antenatal care for last pregnancy		
Yes	319	69.7
No	139	30.3
How many visits you have for antenatal		
1	62	19.4
1-4	217	68
.>5	40	12.6
Have you come across any obstetric difficulties in previous delivery?		
Yes	106	23.1
No	352	76.9

What specific measures were taken		
Nothing	3	.7
Visit health institution	94	20.5
Traditional method (massage, herbs)	9	2

Women's age at their 1st marriage and pregnancy was determined the data showed that majority 358(78.2%) of them married above 18yrs old and 377(82.3%) of them had their pregnancy at the same age. 236(51.6%) of the respondents have 2-5 total pregnancy and 238(52%) of them have 2-5 children. Regarding antenatal attendance 319(69.7%) of them attend antenatal care during their pregnancy from them 217(68%) attend about 2-5 visit. 106 (23.1%) of the total respondent had come across obstetric difficulties during child birth from them 94(20.5%) of women visit health institution to get solution and 9(2%) of them get solution at home by taking traditional treatment.

Table5. Health service factors that affect women choice of delivery place in Haramaya woreda, East Hararge Zone Oromia region, 2011.(N=458)

Variables	Frequency	Percentage
Presence of health institution which gives delivery service in your area		
Yes	458	100
No		
Satisfaction with delivery services given at health units?		
Yes	340	74.2
No	118	25.8
If No what is the reason		
It kills time	52	11.4
Unable to perform cultural ceremonies	8	1.7
Unpleasant approach of health workers	58	12.7
Do you think that there is a difference giving birth at home and health facility		
Yes	399	87.1
No	59	12.9
Which one is the best		
Health facility	261	57
Home	138	30.1

Delivery service Provider attitude to ward laboring women.		
Very good	28	6.1
Good	85	18.6
Satisfactory	248	54.1
Poor	97	21.2
Payment for delivery service at health facility		
<100ETB	422	92.1
>100ETB	24	5.2
Free of charge	12	2.6

All the participants responded that the presence of health unit which gives delivery service in their area. 340 (74.2%) of them were satisfied with the delivery service given at health unit, 118(25.8%) of them were not satisfied, from them 58(12.7%) found that the reason of unsatisfaction were due to unpleasant approach of health worker, 52(11.4%) were said that it kill time. 399(87.1%) of the respondent think that there is a difference between giving birth at home and health facility. Regarding the attitude of health workers toward labouring mother 248(54.1%) of them replied that it was satisfactory 97(21.25) were said poor. Regarding payment for delivery service given at health facility 422(92.1%) of them replied that the payment is less than 100 ETB and 24(5.2%) of them said greater than 100 ETB the rest said free of charge.

Table6. Association of selected socio-demographic variables with women choice of delivery place in Haramaya woreda, East Hararge Zone Oromia region, 2011

Variables	n%	Delivery place choice		COR at95%CI	AOR at 95% CI
		Home n%	Health unit n%		
Age					
15-19	6(1.3)	2(.4)	4(.9)	5.4(.947-30.4)	.23(.15-3.6)
20-24	89(19.4)	29(6.3)	60(13.1)	4.1(2.3-7.2)*	2.1(1.2-5.5)*
25-29	118(25.8)	40(8.7)	78(17.1)	2.6(1.5-4.3)*	1.4(1.1-3.1)*
30-34	94(20.5)	62(13.5)	32(7)	1.39(.793-2.4)	.45(.19-1.08)
35+	151(33)	110(24)	41(9)	1.00	
Respondents Education					
Illiterate	247(53.9)	200(43.7)	47(10.3)	0.14(.004-.045)*	.06(.008-.408)*
Read and writes	47(10.3)	25(5.5)	22(4.8)	.015 (.014-.186)*	.07(.01-.51)*
Primary education (1-8)	109(23.8)	41(9)	68(14.8)	.096(.028-.33)*	.16(.24-1.02)
Secondary education and above	55(12)	3(.7)	52(11.3)	1.00	
Respondent occupation					
House wife	278(60.7)	192(41.9)	86(18.8)	.149(.057-.389)*	1.1(.302-3.85)
Civil servant	42(9.2)	5(1.1)	37(8.1)	2.5(.663-9.18)	4.9(.63-39.4)
Merchant	60(13.1)	29(6.3)	31(6.8)	.36(.124-1.02)	2.6(.62-11.15)
Farmer	33(7.2)	28(6.1)	5(1.1)	.06(.016-.224)*	1.3(.23-7.37)
Daily labors	21(4.6)	9(2)	12(2.6)	.444(.125-1.58)	4.09(.75-22.4)
Student's	24(5.2)	6(1.3)	18(3.9)	1.00	
Husband educational status					
Illiterate	192(42)	161(35.2)	31(6.8)	.02(.009-.042)*	.23(.073-.76)*
Read and writes	80(17.5)	55(12)	25(5.5)	.05(.02-.11)*	.34(.108-1.054)
Primary education (1-8)	86(18.8)	44(9.6)	42(9.2)	.09(.043-.214)*	.33(.117-.925)
Secondary education and above	100(21.7)	9(2)	90(19.7)	1.00	
Husband occupation					
Farmer	248(54.1)	199(43.4)	49(10.7)	.15(.005-.04)*	.21(.052-.868)*
Daily laborers	56(12.2)	34(7.4)	22(4.8)	.04(.013-.13)*	.19(.045-.767)*

Merchant	85(18.6)	32(7)	53(11.6)	.1(.034-.31)*	.32(.082-1.21)
Governmental employee	69(15.1)	4(.9)	65(14.2)	1.00	
Monthly household income	63(13.8)	56(12.2)	7(1.5)	.083(.035-.196)*	.64(.18-2.36)
<320	135(29.5)	99(21.6)	36(7.9)	.241(.144-.404)*	.65(.27-1.56)
320-600	127(27.7)	61(13.3)	66(14.4)	.717(.438-1.172)	.92(.45-1.87)
601-1000	133(29)	53(11.6)	80(17.5)	1.00	
.>1000					

*Adjusted for all significant variables p <0.05

From socio-demographic characteristics there is strong association between women age, educational status of women, husband educational status, husband occupation with women choice of delivery place.

Age group of women was found to be associated with choice of delivery place. Those who were in the age group twenty to twenty four and twenty five to twenty nine were respectively 2.1 and 1.4 times more likely to choice health facility as delivery place than women who were in the age group of thirty five and above [**AOR(95%CI) 2.1(1.2-5.5) and 1.4(1.1-3.1)**] as shown in table 6.

Educational status of the women was found as one of significant predictors for choice of delivery place. Women who were illiterate were less likely to choice health facility as delivery place compared to women who were secondary and above education [**AOR (95%CI) 0.06(.008-.408)**] and also women who were able to read and write less likely to choice health facility than women who receive secondary education and above [**AOR (95%CI) 0.15(.14-.186)**].

Husband educational status also found to be statistical significant association. Those women whose husbands illiterate were less likely to choice health facility as delivery place when compared to women whose husbands were receive secondary education and above [**AOR(95%CI).23(.173-.76)**]. Similarly Husband occupation also an important determinant

of women choice of delivery place. Women's whose husband occupation were farmer less likely to choice health facility as delivery place compared to women whose husband were governmental employee [**AOR(95%CI).25(.52-.87)**] and women whose husband were daily laborers also less likely to choice health facility than women whose husband were governmental employee [**AOR (95%CI) .19(.045-.767)**].

In crud analysis monthly house hold income was found to be association with women choice of delivery place. Those women whose household income less than three hundred twenty and from three hundred twenty to six hundred Ethiopian birr were less likely to choice health facility compared to women of house hold income greater than one thousand Ethiopia birr [**COR (95%CI) .38(.035-.96)**] and [**COR (95%CI) .24(.144-.4.4)**] respectively as shown in table 6. But the association was insignificant after adjusting for possible confounder.

Table7. Association of past obstetrical factors with women choice of delivery place in Haramaya woreda, East Hararge Zone Oromia region, 2011

Variables	n%	Delivery place choice		COR at 95%CI	AOR at 95%CI
		Home n%	Health unit n%		
Gravid/total number of pregnancy					
1	116(25.3)	40(8.7)	76(16.6)	8.7(4.6-16.3)*	
2-5	236(51.5)	142(31)	94(20.5)	3.03(1.7-5.3)*	
>5	106(23.1)	87(19)	19(4.1)	1.00	
Parity/total number of births					
1	120(26.2)	40(8.7)	76(16.6)	7.4(3.9-13.7)*	
2-5	238(52)	142(31)	94(20.5)	2.8(1.6-4.89)*	
>5	100(21.8)	87(19)	19(4.1)	1.00	
Did you attend antenatal care					
Yes	319(69.6)	144(31.4)	175(38.2)	10.8(5.9-19.7)*	3.4(1.43-8.25)*
No	139(30.4)	125(27.3)	14(3.1)	1.00	
How many visits you have for antenatal?					
1	62(19.4)	39(12.2)	23(7.2)	.45(.194-.98)*	.52(.154-1.72)
1-4	217(68)	88(27.6)	129(40.4)	1.08(.55-2.15)	
>5	409(12.5)	17(5.3)	23(7.2)	1.00	

*Adjusted for all significant variables p <0.05

As indicated in table 7 above from the obstetrical factors women with gravida one more likely to choice health facility as delivery place when compared to women with gravida above five [**COR (95%CI) 8.7(4.6-16.3)**] and women with gravida two to five also more likely to choice health

facility than women with gravida above five [**COR (95%CI 3.03(1.7-5.3))**] but when adjusting to possible confounders found to be statistically insignificant. Parity also found to be factor for choice of delivery place. Women who had one parity were more likely to choice health facility than women with parity above five [**COR (95%CI) 7.4(3.9-13.7)**]. Receiving antenatal care was found to be significant factor on choice of delivery place. Women who had ANC visit [**AOR (95%CI) 3.4(1.43-8.25)**] were higher to choice health facility as delivery place than women who did not have ANC visit. Number of ANC visit also found to be significant women who have one visit less likely to choice health facility than women who have greater than five visit[**COR(95%CI),45(.194-.98)**] but have no association when adjusted to possible confounder.

Table 8. Cross tabulation of women having health information on the benefit of give birth at health institution Vs choice of delivery place in area under study, 2011

Having health information on the benefit of institutional delivery	Choice of delivery place		
	Home	Health institution	Total
Yes	182(39.7%)	184(40.2%)	366(79.9%)
No	87(19%)	5(1.1%)	92(20.1%)
Total	269(58.7%)	189(41.3%)	458(100%)

The above cross tabulation indicated us women who get health information about the benefit of institutional deliveries increase the probability of choosing health institution 3.6 times higher than those who did not get the information [**COR at 95% CI 17 (6.9-44.3)**] , and [**AOR at 95% CI 3.6 (1.017-12.7)**] P<0.04.

Table 9 .The association between traditional remedies and geographical accessibility of health care with women choice of delivery place in Haramaya woreda, East Hararge Zone Oromia region, 2011

Variables	n%	Delivery place choice		COR at 95%CI	AOR at 95%CI
		Home n%	Health unit n%		
Is there any traditional remedies given to the mother during child birth at home					
Yes	47(10.3)	41(9)	6(1.3)	.187(.076-.439)*	.3(.059-.756)*
No	411(89.7)	228(49.7)	183(40)	1.00	
Distance from home to health facility below 2km	99(21.6)	31(6.8)	68(14.8)	4.3(2.6-6.9)*	.109(.514-2.32)
2-5km	8(1.7)	6(1.3)	2(.4)	.65(.129-3.27)	.46(.06-3.55)
>5km	351(76.6)	232(50.7)	119(26)	1.00	

*Adjusted for all significant variables p <0.05

Regarding traditional remedies given to women during child birth at home those women responded for the presence of remedies were less likely to choice health facility delivery compared to women those responded for the absence of remedies [**AOR(95%CI) .3(.059-.756)**]. Geographical accessibility of health unit was one factor on choice of delivery place. Women who where live below two kilometers to the nearby health institution were more likely to choice health facilities as delivery place than women who live greater than five kilometers[**COR (95%CI)4.3(2.6-6.9)**] but statically insignificant when adjusted.

Table10. The association between health service factors with women choice of delivery place in Haramaya woreda, East Hararge Zone Oromia region, 2011

Variables	n%	Choice of delivery place		COR at 95%CI	AOR at 95%CI
		Home n%	Health unit n%		
Satisfaction with delivery services given at health units					
Yes	340(74.3)	183(40)	157(34.3)	2.3(1.5-3.6)*	.91(.434-1.94)
No	118(25.7)	86(18.7)	32(7)	1.00	
Delivery service Provider attitude to ward laboring women.					
Very good	28(6.1)	7(1.5)	21(4.6)	1.00.	
Good	85(18.6)	37(8.1)	48(10.5)	.432(.166-1.13)	.35(.081-1.49)
Satisfactory	248(54.1)	148(32.3)	100(21.8)	.225(.092-.550)*	.22(.04-1.208)
Poor	97(21.2)	77(16.8)	20(4.4)	.087(.032-.232)*	.154(.026-.917)*
Do you think there is difference giving birth at home or health facility					
Yes	399(87.1)	251(46.9)	184(40.2)	9.2(3.6-23.6)*	2.9(.94-9.07)
No	59(12.9)	54(11.8)	5(1.1)	1.00	

*Adjusted for all significant variables p <0.05

In crud analysis satisfaction with delivery service given at health facility had positively influence the choice of delivery place. The probability of choosing health facility [**COR (95%CI) 2.3(1.5-3.6)**] were more likely than women who had no satisfaction. The approach of delivery service provider to ward laboring women at health unit was found an important predictor on choice of delivery place. Women who said the approach of service providers were poor less likely to

choice health facility compared to those women who replied the approach were very good. **[AOR (95%CI) .154(.026-.917)]**. Thinking of women about the difference between delivery care given at home and health facility were asked and found that women's those believe the difference between delivery care given at home and health facilities more likely to choice health unit as delivery place compared to women who did not believe **[COR(95% CI) 9.2(3.6-23.6)]** but not indicate strong association.

Qualitative results

Two focus group discussions were conducted involving a total of 20 participants, approximately 10 in each group with an age range of 19-46years old. The discussion was held using discussion guides and relevant information was collected. Discussants had freely and actively expressed their idea. From the discussion themes were identified and content were analyzed.

Influence from decision makers

Most of the women narrated that if they could choose, they would prefer to deliver in the health institution assisted by professional health person. They pointed out that a woman should ask permissions for her husband before she goes to the health facilities. Some did not know whether delivery needs a decision since most of them were illiterate they did not know when their delivery day was. All the participants agreed that most of the time decisions were made by their husbands and TBA. They commented that since most of them were illiterate and it has cultural value to accept their husband decision. Some of them said as the parents were also involved in decision making. They believed that this is correct. Unless labour is complicated and decided by TBA, their husband would not allow her to go health facilities.

“I don’t think delivery needs decision because it is a sudden onset and it is a natural process.

From my experience labour starts suddenly. When I gave birth for my second child the labour was started when I was in the field to fetch water. Then my neighbours were with me and supported me to back home; then I gave birth in short time. I think it needs to be lucky to have easy delivery, and it depends on the willingness of Allah. No need to think and discuss about delivery. (Widowed women 42 years from Medebelinna)

Transport problem

Participants described transport as one of the major problems during child birth and when emergency referral by TBA was decided. Occurrences of maternal deaths caused by the delay in receiving care due to inability to pay for the transport were discussed in the FGDs; because most of the villages are far from the main road, the cost of transport is not affordable and also to get public transport they go above three kilometers by foot.

“we know how home delivery is dangerous when labour is complicated, but our health facility is too far, because we do not have transport access and it is difficult to transport a laboring mother by manpower and carry for at least 2-3 hr, she might give birth in the way; it happens we saw when mothers gave birth in the way before reaching to the health facility.

Women perceived however that to deliver at a health facility was supposed to be advantageous for prolonged and obstructed labor but the nature of road is difficult to reach laboring women to health facilities especially during rainy season.

“I knew my neighbor died during child birth because of transport problems during rainy season. She entered in labour in the evening. She suffered the whole night and day. So in the second day she told her mother and grandmother that she wanted to be taken to the health facility. The mother didn't want because it needs above 500 birr for transport. We were praying outside while the rest of the mothers were assisting her. But she couldn't give birth. Then the community tried to transport her by man power on journey before reaching to health facilities she died...left her children behind (Married women 45 years from Damota Kebele).

Perception, belief and practices surrounding pregnancy and child birth

They perceive and belief pregnancy and child birth is a natural gift of Allah and most of the time ends up with short and easy deliveries even the one who is in neighbor with out hearing that the women is in labour. There is a cultural belief regarding the pregnant women that blessing her to end in good outcomes saying that *“Allah makes your labour like stone that fall from the mountain”* to express it more in Oromiffa language *“dhagaa gaara butee siffi haa godhu”*.

Concerning the practice of child birth when ever the women is in labour, the husband told to TBA and not allow to inform for others but when the labour was complicated every one around come together and attend it most of the time by coffee and Khat ceremony praying for her and sharing ideas similar experiences, advising her what to do and not to do, hot milk drinks were advised, they belief that pregnancy and delivery are natural process.

Need of privacy and support person

Most of the participant agreed that women especially who live in the rural area afraid of exposing her body to the others so they prefer home delivery. During home deliveries women in labour was assisted by women around them but in health facilities delivery, all support persons were out side of delivery room so women’s are feel being alone and labour was painful. All the participants revealed that older mothers and TBAs were more accepted by the community than health worker because of their experience and the respect to privacy of the laboring mother.

Provider approach

All the participants showed that not all health workers but few were as such hostile. They also perceived that the health workers were not good on handling and respecting the laboring mothers.

“I have an experience when I delivered my last child the nurse slashes my face whenever I oppose my position on my back (25 years married women from Tinike Kebele) but some other were friendly and so kind as a matter of chance “for then it is better to die at home” she concluded.

One of the participants was said that the health staff sometimes has a rough behavior towards the women e.g. slapping their thighs during labour, yelling at them when they come in a late stage of labour or do something wrong etc. Fear of impartiality and discrimination also stated they said that *“health professionals were not concerned for the oppressed and the poor women like us who were not dress well rather treat those who dressed well respected like you (pointing the facilitator)” being insolent and harsh (35 years old married women from Haramaya 01kebele)*

Reliance on traditional system

Most women involved in the discussion had attended antenatal care during their pregnancies. The reasons given for attending antenatal care were that they wanted to know the growth and progress of pregnancy, to obtain immunizations, to know if everything was normal, and to have any problems diagnosed and treated.

Most of the participants do not know-how major problems in childbirth and complications that do arise are sudden and unpredictable. So, women and also their husband do not want to take the child delivery at hospital unless the complications are serious and out of control. labour is said to be prolonged when it exceed two days. They said that when the women become weak, exhausted, dehydrated TBA confirms referral. This behavior is major cause of utilization of modern delivery care. In addition to this there is some inherited belief and tradition. The entire participant agreed that most of the women in Haramaya woreda fell safe and secured to give childbirth in the presence of their family members at home.

Economic factors

The FGD respondents argued that the majority of mothers were poor. This might be the main reason for the selection of home delivery. Cost of treatment, transport, and other out-of-pocket costs were mentioned as constraints.

The fear of possible referral to Harar in a case of complication during delivery, keeps some pregnant women from using the health center.

“I would prefer to go to the health center because they have everything to make your delivery easy. The only reason that I do not want to go to the health center is that they would transfer me to Harar” (married 33 years old women from Haramaya 01 Kebele).

During our discussions some women said that even on a particular labour situation, a woman was referred to Harar, actually she refused to go. The negative aspects of possible referral occurred several times in relation to cost, inconvenience, fear of cesarean section delivery.

6. Discussion

This current study contained both quantitative and qualitative method; it facilitated a better understanding of the factors affecting choice of delivery place.

From socio demographic variables age was found to be associated with the choice of delivery place. Women who were in the earlier age were more likely to choice health facilities as delivery place as compared to women who were at and above thirty five years of age. The finding appeared to be inconsistent with other study done in Bhutan by Dechen.Z. The difference may be due to different socio demographic and socio cultural characteristics of the study participant. The possible explanation for this finding could be choice of HF as delivery place among women with early age implies that those women might be younger and has better understanding about the advantages of HF deliveries. On the other hand, older women may belong to more traditional cohorts and thus be less likely to use modern facilities than young women.

Andersen's Health Model explained that people must consider problem, understand about health threatening situation and make decision on behavior change, which is possible with educational attainment of women.

Educational status of the women was found as one of significant predictors for choice of delivery place. Women who were illiterate were less likely to choice health facility as delivery place compared to women who were secondary and above education. Other studies have shown comparable results with this finding. Study conducted in Syrian women by Hyam.B and Asmaa.A indicated that the demographic variables like woman's education were statistically related to preference of delivery place. Literate women preferred a hospital delivery compared

with illiterate women. Study conducted by S.H.Idris,U,M,D and A.U.Shehu in Nigeria. Study conducted by Yalem.T in Tigray also similar finding with this study.

Educated women are expected to have knowledge and awareness about the advantages of institutional deliveries. They are more likely to seek modern health care than those who are not. Education is likely to improve the general status of women and help them to build up confidence to make decisions about their own health. Educated women could have better access to information through reading and following media about maternal health care and they could have better knowledge about the advantages of maternal health care and pregnancy related complications.

Husband educational status was found as one of significant predictors on choice of delivery place. Those women whose husbands illiterate were less likely to choice health facility as delivery place when compared to women whose husbands were receive secondary education and above. This finding was comparable with other study conducted by Hyam.B and Asmaa in Syrian. Educated husbands may be more open toward modern medicine, aware of the benefits of health facility delivery and more able to communicate with health workers and demand appropriate care. They may also put fewer constraints on their wives' mobility and decision-making, thus facilitating care-seeking.

Husband occupation was also found as one of significant factor on choice of delivery place. Women's whose husband occupation were farmer less likely to choice health facility as delivery place compared to women whose husband were governmental employee this finding was comparable with the study conducted by S.H.Idris,U,M,D and A.U.Shehu in Nigeria. This is due to wives of husbands with higher status occupations could be more able to use health facilities for delivery. High status occupations are associated with greater wealth, making it easier for the

family to pay costs and better understanding about the delivery care is associated with choice of delivery place.

From the total respondent 76.6% of them live in line with greater than five kilometer from the near by health institution. Women who whose residence where below two kilometers from the nearby health institution were more likely to choice health facilities as delivery place than women who live greater than five kilometers. Finding in this study also similar with other studies done by Line,S et al in Malawi. The physical distance from their house to the health care centers imposes another cost to the pregnant women that is opportunity cost time spent obtaining these services and accessibility of health service in terms of distance is very important in the use of reproductive health services.

Another interesting result of the current study is that received ANC has appeared as a strong significant predictor on choice of delivery place. Mothers who attended antenatal follow up for the recent pregnancy have 3.4 times higher chances of choosing health institution as place of delivery. This was similar with other study conducted by Yalem.T in Tigray Ethiopia.The possible explanation is that women who had antenatal care follow up could received advice and health education about pregnancy related complications and advantages of giving birth at a health facility and assisted by skilled attendant.

In this study having health information on the benefit of health institution delivery was significant predictors for choice of delivery place. Women who get health information about the benefit of institutional deliveries increase the probability of choosing health institution 3.6 times higher than those who did not get the information. The finding appeared to be similar with other study done by Genet.D in Debre Markos. Having information could influence women's knowledge about delivery risks and availability of services.

Maternity is viewed variedly in culture. The health of the pregnant woman is managed traditionally based on several pre-determined and experienced beliefs within specific cultural settings. One interesting finding in this study is the presence of traditional remedies given to the women during child birth decrease the probability of selecting health institution as delivery place. This shows us women respect and love once own culture, traditions and cultural ceremonies done during child birth at home.

In qualitative survey the FGDs indicated that decision making power had a key influence on the choice of delivery place. Majority of women requests permission from their husbands and relatives to go to the health facilities. In any case the husband seems to be the most key person in the decision-making process. The participant also stated that unless labour is complicated and decided by TBA, their husband would not allow her to go health facilities. This finding has also been described in many studies like study conducted by Mwifadhi Mrisho, M et al in Tanzania and study conducted in Malawi by Line, S.

The approach of delivery service provider to ward laboring women at health unit was found an important predictor on choice of delivery place. Women who said the approach of service providers were poor less likely to choice health facility compared to those women who replied the approach were very good. This finding is comparable with similar study done in South Africa by Esimal and study conducted in Ghana by sissala research committee. It could be suggested that frustration as a result of heavy work load.

According to the FGDs participants transport facility was described as one of the major problems during child birth and when emergency referral was decided. They stated also there were poor basic infrastructures like road, and inaccessibility of public transports. In most cases, laboring mothers were taken to the health facility if delivery was complicated.

Transport in rural areas is extremely hard for different factors: most villages are far from the main road, to get public transport they go above three kilometers by foot, the cost of transport is not affordable and during the rainy season the roads are washed away and too muddy or impassable. This finding is consistent with other study done by Dechen Z in Bhutan and other study done by Essien, E et. al in Northern Nigeria.

“we know how home delivery is dangerous when labour is complicated, but our health facility is too far, because we do not have transport access and it is difficult to transport a laboring mother by manpower and carry for at least 2-3 hr, she might give birth in the way; it happens we saw when mothers gave birth in the way before reaching to the health facility.

Women perceived however that to deliver at a health facility was supposed to be advantageous for prolonged and obstructed labor but the nature of road is difficult to reach laboring women to health facilities especially during rainy season.

Based on the FGDs discussions, the deep rooted traditional and cultural practices were negatively influencing the health seeking behavior of the mother. They perceived that the HF is only for obstructed and complicated labour. They strongly emphasized that the delivery was up to the willingness of Allah, not up to the continuous support of health professionals. It was also generally perceived that pregnancy and child birth were a normal phenomenon. They did not consider that it required special attention. This could be the explanation for why the majority of mothers gave birth at home.

Need of privacy and support person are also discussed by the participants. Women those live in rural area afraid of exposing her body to the health workers so they prefer home delivery. During home delivery women in labour was assisted and get reassurance by women around community from the start of labour until delivery takes place. During this time women feel secured and

labour is facilitated but in health facilities delivery, all support persons were out side of delivery room so women feel being alone and labour was painful.

The participant identified provider approach to ward laboring women as major barrier to the use of maternal care. They showed that not all health workers but few were as such hostile. Women perceived that the health workers were not good on handling and respecting the laboring mothers. *“I have an experience when I delivered my last child the nurse slashes my face whenever I oppose my position on my back (25 years married women from Tinike Kebele) but some other were friendly and so kind as a matter of chance “for then it is better to die at home” she concluded.*

Fear of impartiality and discrimination were also discussed by the participant. *“health professionals were not concerned for the oppressed and the poor women like us who were not dress well rather treat those who dressed well respected like you (pointing the facilitator)” being insolent and harsh (35 years old married women from Haramaya 01kebele).* Other study conducted by Sissala Research Committee in Ghana and Line S in Malawi also indicated the same result.

The participants identified lack of knowledge and awareness of the community and access to information on maternal health care issues as barriers to use maternity care. Majority of the women had a more positive attitude and information about the advantages of antenatal care. They attend ANC to know the growth and progress of pregnancy, to obtain immunizations, to know if everything is normal, and to have any problems diagnosed and treated. They pointed out that the HEWs were teaching them about maternal health care in their home. Despite of this, majority of them were not aware about pregnancy related complications and advantages of institutional delivery. They also witnessed when mothers die at home during delivery; they

believed these deaths occurred due to the unwillingness of Allah. This was consistency with other study done by Babar T.et al in Pakistan.

7. Strength and limitation of the study

Strength of the study

The study tried to generate as rich information as possible by employing triangulation of quantitative and qualitative methods of data collection.

Limitation of the study

Recall bias may be a problem for women to memorize events in responding for questions like age and obstetrical difficulties. The study only addressed four Kebeles from 37 total urban and rural kebeles this is due to time and budget constraint.

8. Conclusions

In general, the study has revealed that age of the respondent, women educational status, husband educational status, husband occupation, attending ANC, having information on the benefit of health institution delivery, reliance on tradition, distance and provider approach toward laboring women were significant predictors for women choice of delivery place.

The results from both bivariate and multivariate analysis confirmed maternal education was significant predictor variable for choice of delivery place, it is implicated that an enormous variation on choice of maternal health care among the educated and illiterate women.

A high proportion of women are resident far from health institution. 76.6% of the sampled women live in line with above five kilometer from the nearby health facilities. WHO recommended that for every 5kms distance, there should be a health facility? However, this

recommendation is still not met. The effect of the distance to health facility is a contributory factor to the low number of deliveries at the health facilities. Transportation problem and nature of road were an important factor discussed by focus group discussant.

The finding from focus group discussions revealed that influence from decision-makers was also found to be an important obstacle for choice of delivery place. There is a strong and persistent cultural beliefs regarding child birth, considering it as if no illness by it self which influence the women health seeking behavior. Beliefs in normality of labour and child delivery at home cause women to arrive at health institution only in complicated labour.

The attitude of health workers toward laboring women were also strong association with the selection of delivery place. Need of privacy and support person during labour were discussed by FGDs as main factors for choosing delivery place.

9. Recommendation

Policy makers and health planners need to recognize the determinants choice of delivery place since it is a part of maternal health care .More efforts should be given to educate women's and to empower them.

WHO recommend health facility should be available at five kilometers distance, but majority of the study participants residences above five kilometers from health unit, so policy makers and health planners should consider this and work to make maternity service available at the recommended distance.

Zonal Health Administration in collaboration with the woreda should provide means of transport (ambulance) to encourage referral between communities and health care providers.

The government and other responsible bodies should make efforts to increase community based health education, awareness creation and improve better access to information for women's regarding maternal health care will be imperative.

Traditional beliefs were negatively influencing the community and women on the selection of delivery place. Accordingly, efforts should be made to create awareness on the advantage of health unit delivery and possible complication that occur during child birth at home through mobilizing the general public and involvement of elderly mothers and religious leaders.

Refresher training on the issues of reproductive health, patient-health staff communication will benefit the service deliveries and helps the health workers to place them in a better position to serve the community. Positive interaction between expectant women and health care providers however lead to client confidence and compliance

The nurse should know potential cultural factors affecting health and health care system like belief and practice during child birth to give cultural based care to pregnant and laboring women.

Allowing a family member or a friend of the woman to accompany her during labour might be a possible intervention, to overcome the cultural need of the family to observe the delivery, as well as reducing the barrier of unfamiliar environment that may cause timidity and anxiety.

This study could be generally applicable to other areas of the zone since the woredas are similar in health service delivery. The identified problems could be useful in developing and implementing effective interventions to improve the quality of maternal health care services. It could help to improve maternal health and consequently reduce maternal deaths which would lead to achieve the MDG5.

Finally, further studies will be needed to explore the factors that affect the choice of delivery place. This study helps as reference for other study which will be done in the future. More qualitative studies need to be carried out to get women's perspectives on the provision of maternity care services and what interventions would be appropriate.

10. Reference

1. Yalem. T: Determinants of Antenatal Care, Institutional Delivery and Skilled Birth Attendant Utilization in Samre Saharti District, Tigray, Ethiopia.2010, p.25-30 (unpublished master thesis)
2. Maternal Mortality in 2005: Estimates Developed by WHO, UNICEF, UNFPA and the World Bank. Geneva, Switzerland: World Health Organization; 2007 p.45
3. A Koblinsky M, Matthews Z, Hussein J, et al: Going to scale with professional skilled care. Lancet. 2006; 368: 1377–1386.
4. United nation :The millennium development goal report,2005: <http://www.un.org/millenniumgoals> (pdf) 2007.Acessed on October 16, 2010
5. Fernando D, Jaya Tilleka A, Karunaratna.V: Pregnancy-reducing maternal deaths and disability in Sri Lanka national strategies BrMedBull 2003;67:85 - 98.
6. Central Statistical Authority (CSA) and ORC Macro. Ethiopia Demographic and Health Survey 2005, Addis Ababa, Ethiopia, and Calverton, Maryland, USA: CSA and ORC Macro, 2006
7. Federal Ministry of Health of Ethiopia. Health Sector Strategic Plan (HSDP III) 2005
8. European Journal of Public Health, Vol. 17, No. 1, 86–91
<http://eurpub.oxfordjournals.org> assessed at October 9
9. HeerT.: Determinant of home delivery in semi urban setting of Nepal Nepal Medical College Teaching Hospital.2009, <http://www.nepjol.info/indx> assessed at October 9, 2010
10. Making pregnancy safer: A strategy for action. Safe Motherhood Newsletter 2002;issue 29
11. Utilization of maternal health care services in Ethiopia Nov 2001 p.29
12. kebede.D: Maternal death reviews a path to achieve the Millennium Development Goal of improving maternal health.Ethio.jh.Devt.2006.20(3)204
13. Federal Democratic Republic of Ethiopia Ministry of Health, health and health related indicators: Policy Plan and Finance General Directorate, FMOH, June 2010
14. Ratcliffe S.D,Bxley.EG,etal: Family practice obstetric,2001(2nd ed) Hanley&Belfus p361

15. Koblinsky M.A, Campbell O & Heicheleim J: Organization delivery care what works for safe mother hood? Bulletin of WHO 2001, 77(5):339-406.
16. S.S. Mahdi and O.S Habib: Preference and practices of women regarding place of delivery. World health organization/2010, <http://www.emro.who>. Accessed on Oct 9 2010.
17. Margaret E, et al : Factors affecting home delivery in rural Tanzanian, American Journal of Public Health, 2009, <http://www.onlinelibrary.wiley.com>, Accessed at Oct 9, 2010
18. Edward N: Expectant Mothers and the Demand for Institutional Delivery: Do Household Income and Access to Health Information Matter? European Journal of Social Sciences – Volume 8, Number 3 (2009) p 470-471
19. Mihret H, Mesganaw F: Birth Preparedness and Complication Readiness among women in Adigrat town, North Ethiopia. Ethiopia Health Dev .J. 2008; 22:1
20. Kamal, S. Mostafa M: Factors Affecting Utilization of Skilled Maternity Care Services Among Married Adolescents In Bangladesh', Asian Population Studies, 2009 5; 2, 153 — 170
21. Falkingham: Factors that determine the place of delivery in Tajikistan. 2003 p. 42
22. Hyam, B, PhD and Asmaa, A, MD, : Syrian women's preferences for birth attendant and birth Place, American University of Beirut award, Regional Changing Childbirth Research Program at Faculty of Health Sciences, 2006, <http://www.ncbi.nlm.nih> Accessed at Oct 15 2010
23. Nuwaha, F. and Amooti-Kaguna, B.: Predictors of home deliveries in Rakai district, Uganda. African Journal of Reproductive Health, 2002, 3(2): 79-86
24. Factors affecting a woman's choice of delivery place in Wellembelle, Sissala Research Committee, 2009 <http://www.src.imcculand.dk> Accessed at October.9 2010.
25. Essien, E. et al: Community Loan funds & transport service for obstetrics' emergency in Northern Nigeria. International Journal of Gynecology & Obstetric 2003. 59 :12-25
26. Esimai OA, Ojo OS and Fasubaa OB.: 2002: Utilization of Approved Health Facilities for Delivery in Ile-Ife, Osun State, Nigeria. Department of Community Health, Obafemi Awolowo University, Ile-Ife. Niger J Med. 11(4): 177-179)

27. S.H. Idris, U.M.D. Gwarzo and A.U. Shehu: Determinant of place of delivery among women in semi-urban settlement in Zaria, *Annals of African Medicine*, 2006, Vol. 5, No. 2;: 68 – 72
28. Malin, M. and Gissler, M.: Maternal care and birth outcomes among ethnic minority women in Finland. *BMC Public Health* 2009, 20; 9:84
29. Dechen, Z. : Factors affecting the practice of delivery among the pregnant women who receive antenatal care during their pregnancy in Bhutan. 2006 (Unpublished masters thesis) P.26-43
30. Samuel. G, : Magnitude and factors influencing low delivery in health center, primary care institution Iringa, 2002 p34
31. Amardeep Thind, A., Amir Mohani, A., Kaberi Banerjee, K., and Fred Hagigi, F: Where to deliver? Analysis of choice of delivery location from a national survey in India, *BMC Public Health*, 2008. V.8, p29.
32. Babar T., Shaikh, and Juanita Hatcher, J: Health seeking behavior and health service Utilization in Pakistan challenging the policy makers. *Journal of Public Health*, 2004. 10.1093
33. Mwifadhi Mrisho, M., Joanna A. Schellenberg, Adiel K. Mushi, Brigit Obrist, M., Hass Mshinda, H., Marce Tanner, M.; and David Schellenberg D: Factors affecting home Delivery in rural Tanzania. *Tropical Medicine and International Health*, 2007 v12.P32
34. Line, S. Johanne, S., and Jane, C: Factors influencing women's choice of place of delivery in rural Malawi. *Afri J Reprod Hlth*, 2006 10(3): 67-75.
35. Genet, D: Preference on type of birth attendants and place of delivery among women's in rural Kebele around Bebre Markose town Ethiopia ,2009 (Unpublished masters thesis) P.50

Annex 1
English version of consent form & questionnaire

Addis Ababa University Medical Faculty Centralized School of Nursing questionnaire on factors affecting women's choice of delivery place around Haramaya woreda 2010

Verbal consent

Greeting Hallo

My name is-----I am from-----I am part of a team of people who are carrying out a survey on Factors affecting women's choice of delivery place. I would like to ask you some question regarding the topic. The result of this study will help an input to improve the service. This interview will take about 15 minutes please assured that your name is not being recorded and any other identifying information will be kept confidential your participation is voluntary, and you have the right to not participate fully or partially your preference will not affect the health care you would normally receive. You may stop the interview at any time. However, we hope that you will participate in this study since your views are important may I begin the interview now?

Yes-----

No-----

If yes continue the interview

If no thanks the women & proceed with next respondents

Name of the interviewer-----sign-----Date-----

Name of the supervisor-----sign-----Date-----

Part I Respondents socio demographic characteristics

Question	Option	Skip to ques
101. Age in year at present	-----	
102. Marital Status	1.Married 2.Single 3.Divorced 4.Separated 5.Widowed	
103. Religion	1. Orthodox 2.Muslim 3. Protestant 4. Catholic 5. Other specify	
104. Ethnicity	1.Oromo 2. Amhara 3.Tigre 4. Gurage 5. Adare 6. Other specify	
105.Respondent's occupation	1.House wife 2.Civil servant 3.Merchant 4.Farmer 5.Dailylabors 6.Student's 7. Other specify	
106. What is the main occupation of your husband	1. Farmer 2.Daily laborers 3.Merchant 4.Governmental employer 5.Other (specify)_____	
107.Respondent's educational status	1. Illiterate 2.Read and writes 3. Primary education (1-8) 4.Secondary education and above	
108. For those married husband educational status	1.literate 2.Read and writes 3. Primary education (1-8) 4.Secondary education and above	
109. Monthly house hold income	1.<320 2.320-600 3.601-1000 4.>1000	

110. What is the estimated distance from home to the near by delivery institution?	1. below 2km 2.2-5km 3. >5km	
--	------------------------------------	--

Part II Women's choice on place of delivery and the reasons for their choice

Question	Option	Skip to ques
201. Where is your choice regarding to your place of delivery?	1.Health institution 2.Home	If (health institution) skip to q 204 & 205
(For those who prefer to home delivery) 202.What is your main reason to prefer home delivery? (MORE THAN ONE ANSWER POSSIBLE)	1. Distance of health institution 2.No means of transportation 3.I have no money to pay 4.I dislike the behavior of health workers 5.Trust on TBA 6.The service is not available 7. Not necessary for labor & delivery 8.I have bad experience delivery in health institution 9.Because my culture restrict me 10.Other specify-----	
203. If at home who assisted you?	1.Mother 2.Mother –in-low 3.TTBA 4.Neighbor 5.Health extension workers 6.TBA 7. Others specify-----	
204.For those who prefer health institution what is your main reason(MORE THAN ONE ANSWER POSSIBLE)	1.Better service 2.Safe and clean delivery 3.close to my home 4.I was informed to deliver in health institution 5. Fear of complication 6.The approach of health worker is best 7.other specify-----	
205. If at health facility who assisted you?	1. Health extension workers. 2. Nurse 3. Midwife 4.Health officer 5. Don't remember	

206. Where is the choice of your husband to your place of delivery?	1.Health institution 2.Home	
207. Where did your last delivery take place?	1. Health unit 2.Home	
208. Where will your next delivery, when you are pregnant?	1.Home 2.Hospital	
209. Who decides on place of your delivery?	1.Just me 2.My husband 3.Both 4.TBA 5.Other specify	
210.Is there any traditional medication given to the mother during child birth at home	1.yes 2.No	If No skip to q 301
211. what is the reason for medication	1.To hasten child birth 2.To relief pain 3.To prevent complication of child birth 4.Other specify----	

III. Women's past obstetrical history

Question	Option	Skip to ques
301. Age at first marriage?	1. <18 2.>18	
302. Age at first pregnancy?	1. <18 2.>18	
303. Gravidity/total number of pregnancy	1. 1 2. 2-5 3. >5	
304. Parity/total number of births	1.1 2.2-5 3..>5	
305. Do you have any information about the benefit of delivery in health institution	1.Yes 2.No	
306. If yes what is the primary source of information	1.Health workers 2.Frinds, neighbors who get similar service 3.Media	

307. Did you attend antenatal care for your pregnancy	1. Yes 2. No	
308. If yes how many visits you have for antenatal?	1. 1 2. 1-4 3. >5	
309. Have you come across any obstetric difficulties in previous delivery? (prolonged labor, hemorrhage)	1. Yes 2. No	If No skip to q 401
310. What specific measures were taken?	1. Nothing 2. Visit health institution 3. (massage, herbs) 4. Other specify	

Part IV Health service factors and thinking of women on choice delivery place

Question	Option	Skip to ques
401. Is there any health service which gives delivery service in your area?	1. Yes 2. No	If No skip to q.404
402. Are you satisfied with delivery services given at health units?	1. Yes 2. No	If Yes skip to q.404
403. If No what is the reason	1. It kills time 2. unfair and expensive price 3. Unabl to perform cultural ceremonies 4. Unpleasant approach of health workers 5. other specify-----	
404. Do you think that there is a difference giving birth at home and health facility?	1. Yes 2. No	If NO Skip to q 408
405. Which one is the best	1. Health facility 2. Home	If home skip to q 407
406. If you think health facility is best why?	1. Clean 2. Save mothers and child life 3. No retain placenta 4. No bleeding 5. Shorten labor 6. Other (specify)_____	

407. If you think home is best why?	1. No need of transport 2. No cost 3.No bleeding 4. There is privacy 5.Cltural ceremony 6.other (specify)-----	
408.Delivery service Provider attitude to ward laboring women	1.Poor 2.Satisfactory 3.Good 4.Very good	
409.Payment for delivery service	1.<100 2.>100 3.Free of charge	

Date of data collection-----
Code of data collector-----
Name of data collector-----
Signature of data collector-----
Name and signature of supervisor-----

ANNEX 2

Afaan Oromo version consent form and questionnaire

Guuca eyyama fii gaafiilee afaan Oromotiin

Universitii Addiis Abaabaatii fakaality meedikaala jidugalaa barnoota narsii,gaafiilee qorano filanoo bakka da'uumsa dubartoota Anaa Haramayaa 2010.

Eyyama barrefama

Akkam jirtuu,Nagaa kessanii

Anii maqaankoo _____ bakkan hojadhoo _____ ,kan ta'ee fii miseensa garee gaafiilee wantoota filanoo bakka da'uumsa qoratuudhaa. Gaafiilee muuraasa kan dhima kana illaalan siigafachuun barbaada.Bu'aan qoraanoo kana tajaajila da'uumsa amma keenama jiruu foyyeesudhaaf nifayyada. Gaafii fi deebiin go'ano kun daqiiqqa 15 fudhachuu danda'aa. Maqaan fi eenyumaan kee assii irraa hin-mulatuu,hirmaanaan kee fedhii irrati kan hunda'eedha, yaadnii atii keenitu kun tajaajila da'uumsa argatuu irraati midhaa hingedhisuu, yeroo barbaade gaafiifi deebii kana dhaabu/dhissuu dandessa.

Nii hirmmata janee abdiin nigoona, illalchii atti qabduus baayisse nu fayyadaa.

Gaafi sii gafachuu eegaluu.

Eyyee_____

Mitti_____

Yoo eyyammamee gaafi gaafachuu nijalqabama.

Maqaagaafii

gafaata_____mallaattoo_____guyyaa_____

Maqaa to'aata_____mallattoo_____guyyaa-----

Kutaa 1 Odeefannoo hawaasumaafi haala ummataa

Gaafii	Deebi	Skip to ques
101.Umriin kee meqaa	-----	
102.Hala fudhaa fi heeruma	1. Heerumtee 2. Hinheerumne 3.kan hiktee 4.Garagara kan jiratan 5. Abaan manaa kan irraa du'ee	
103. Amantaa	1. Orthodoxi 2. Musilima 3. pheenxee 4.katooliki 5. kan birroo yoo jiraate yaa ibsamu gosa-----	
104. Sabnii kee maali?	1. Oromo 2.Amaaraa 3.Tigree 4 Guraagee 5. Adaree 6. Kan birroo yoo---	
105.Hojiin itiin jiraau maali?	1. Hadha mana 2. Hojeetu motuumaa 3. Daldaaltu 4. Qooteebulla 5. Hojeetaa guyyaa/olmayaa 6. Baratuu 7. Kan birroo yoo---	
106.Hojiin abaa waraa keesanii maali?	1.Qoteebulaa 2.Hojeetaa guyaa 3.Daldaalaa 4.Hojeetaa motummaa 5. Kan birii-----	
107.Sadarkaa barumsa keetii na'ibsii?	1. Hhinbaranee 2. Dubisu fi barreesu nindanda'a 3.Sadarkaatoookoffaa1-8 4.Sadarkaa lamafaa 9-12 fii olli	
108. Sadarkaan barnoota abbaawara keetii hoo?	1. hinbaranee 2. Dubisu fi barreesu nidnda'a 3.Sadarkaa tookoffaa 1-8 4.Sadarkaa lamafaa 9-12 fii olli	
109. Galiin maati kanaa ji'aan hangamii?	1.>320 2.320-600 3. 601-1000 4.>1000	

110. Mana keeti irraa eedoon tajaajila da'umsaa itii argatu hagam fagata?	1. km 2 gadi 2. km 2 hanga 5 3. >5 km	
---	---	--

Kutaa2 Filmaataa eddo dahinsa fi sababa isaa dubartootan

Gaafii	Deebi	
201. Edoo atii itii deeyisu eesa yoo tahee filata?	1. Edoo tajaajili fayaa itti keenamu 2. Manatii	Yoo bufata fayaa ta'ee gama gaafii 204 fi 205 dabrii
202. Namoota mana filatanifi sababin isaa maalidha? (tokko oll debissu nidandamaa)	1. Fageenya tajaajila fayaa 2. Rakkoo geejibaa 3. Rakkoo maalaqaa 4. Jibiinsa amala hojeetoota waajira fayaa 5. Deeysiftoota adaa irraa amantaa waaniin qabuf 6. Tajaajili waan hin argamneef 7. Dahumsaaf hagasmara barbaachisaa waan hintaaneeff 8. Amaan dura rakkoon tajaajila fayayatitti naqanamee wanta jiruf 9. Adaan kiya wann hinhayamnaaf 10. kan biroo.....	
203. Manati yoo deesu enyutu sideeysisa?	1. Hadha 2. Hadha abaa wara kiyaa 3. Deeysiftu adaa leenjii argate 4. Olaa 5. Hojatoota eksiteenshini fayaa 6 kan biro yoo jiraatee.....	
204. Namootaa edoo tajaajila fayati dahu filatanif sababiin maalidha? (tokko oll debissu nidandamaa)	1. Tajaajila gaari waaniin argadhuf 2. qululu wanta ta'eef 3. dhiheeniyati waaniin argadhuf 4. Kana dura eddo tajaajili kun jiruti akaan dahu naaf himamee jira 5. Soda waaniin qabuf 6. Amali hojeetoota fayaa garii waan ta'eef 7. Kan biro yoo jiraatee.....	
205. Iddo tajaajila fayaatiti enyutu si gargaare?	1. Hojeeoota eksiteenshini fayaa 2. Narsii 3. Deesiftubaratee 4. Ogeesa fayaa sadarka ola'anaa 5. hin yaadadhu	
206. Ido atii itti deesu ilalchisee filannon abbaawara	1. Bufata fayaa 2. Mana	

keet essatti?		
207. Daa'ima kee isa hangafaa essatti deesee?	1. Bufata fayaatiti 2. Manati	
208. Fuldurati yoo ulfoofttee isati dahufi yaada?	1. Manati 2. Hosipitaalati	
209. Baka itii da'u qabdu enyutu murteesa?	1. Aana 2. Abaawaraa kooti 3. Lachu 4. Deesiftu adaa	
210. Dewaa manakesa dubartii dalteff kan kennamu niijira?	1. Eeye 2. Mitii	"Mitii" yoo ta'ee gama gaafi 301 dabrii
211. yoo eeye jatee malifi kenemma	1. Da'umssa aka dadafsisu 2. Dukubi aka fayisuu 3. Rakoo da'umsaan dhufu hanbisuf 4. Deebi biro yoo jiraatee-----	

Kutaa III. Dubartoonnii seena isaanii keessatti beekkumsa ogummaa yaalaa qabanii fi ittifayyadama tajaajila yaalaa.

Gaafii	Deebi	
301. Umrii kee gaafa herumtu meeqa turee?	1. <18 2. >18	
302. Umrii ulfinna jalqabaa?	1. <18 2. >18	
303. Yeroo meqa ulfoofttee?	1. 1 2. 2-5 3. >5	
304. Yeroo meqa deettee?	1. 1 2. 2-5 3. >5	
305. Mana yaalaa keessatti dawuun faayidaa inni qabu irratti yaada qabdaa?	1. Eeyyan 2. Hinqabu	
306. Deebiin eeyyan yoo ta'e burqaan yaada (hubanoo) irraa argatte	1. Hojjattoota fayyaa irraa 2. Hiriyoota ykn olloota tajaajila walfakkatan irraa 3. Sabqunamtii (Raadiyoona, Teeleeviziinaa fi gaazetaa irraa)	
307. Mana yaalaatti hordoffii kunuunsa ulfinna dawuun dura gotee jirtaa?	1. Eeyyan 2. Hingone	

308. Deebiin eeyyan yoo ta'e mana yaalaa yeroo meeqa daawwate?	1. 1 2. 1-4 3. .>5	
309. Da'umsa amaan duraa iratii ogeessa yaalaa dandeetti adda qabu biira dhyxee beeytaa?	1.Eeyyan 2. Na qunname hinbeeku	“Naqunamee hinbeeku” yoo ta'ee gama gaafi 401 dabrii
310. Deebiin yoo eeyyan ta'e tarkaanfii adda ta'e fudhatame maal ture?	1.Tarkaanfii fudhatame hinjiru 2. Mana yaalaa daawwachuu 3. Muxanoo addaatin yaalamu 4.Kan birra, (ibsa itti keenni)___	

Kutaa IV Yaada dubartoota kunuunsa hadhuma dhaabbileen fayyaa keennaa jiran irratti

Gaafii	Deebi	
401.Tajaajila mana yaalaa kan dumsaa kenu nijira?	1.Eeyyan 2.Hinjiru	“Hinjiru” yoo ta'ee gama gaafi 404 dabrii
402. Tajaajili mana yaalaa irraa keennamuu qubsaa dha jatee yadaa?	1. Eeyyan 2. Himull'atu	“Eyan” yoo ta'ee gama gaafi 404 dabrii
403.Yoo deebiin “qubsaa miti” ta'e sababbin isaa maali?	1.Yeroo nama irraa gubaa 2. Qarshiin kafalamu qaalii dha 3.Seera aadaa raawachuf hinhayamu 4.Halla hojjattoonni nama ittiin keeysumeeyyan gaarii waan hitaanef 5. Kan biraa, ibsa itti keenni-----	
404. Mana keessatti fi mana yaalaa keessatti dawu garaagarumaa qaba jatee yaaddaa?	1. Eeyyan 2.Hinqabu	“Hinqabu” yoo ta'ee gama gaafii 408 dabrii
405.kemitu qokaadha?	1.Mana yaalaa 2.Mana	“Mana” yoo ta'ee gama gaafii 407 dabrii
406. Yoo mana yaalaa wayya jatte kan yaaddu ta'e maaliif?	1. Qulqulluu dha 2.Lubbuu hadhaa waan eeguf 3.Dawuun booda garaa keessatti hobbatiin waan hin hafneef	

	4.Dhiiguun waan hinjirref 5. Dawu irratti hojii waan gabaabsuuf 6..Kan biraa, (ibsa itti keenni)-----	
407. Yoo mana keessatti wayya jatte kan yaaddu ta'e maaliif?	1.Geejibni hin barbaachiisu 2.Baasii maallaqaa waan hin qabneef 3. Dhiiguun waan hinjirref 4.Naminini wan sinlalef 5.Biliisa/kophaa ta'insa 6.Kan 5.biraa (ibsa itti keenni)-----	
408. Halla ogeesota dubertii deysuf qaban maal fakaata?	1.Bayaa bedaa 2.Humaa hinjeduu 3.Garii 4.Bayee garii	
409. kefeltii tejajiilla dumssaf kafalamu hangamii?	1.<100 qarshii 2.>100qarshii 3.Humma hinkefalamuu	

Guyyaa ragaan itti sasaabame: _____

Maqaa namicha raga sasaabee: _____

Kodii namicha raga sasaabee: _____

Mallattoo namicha raga sasaabee: _____

Maqaa fi mallattoo supervaayizaraa: _____

Annex 3

English version FGDs consent form and questions

Informed consent

Read the following paragraph for the selected person

My name is-----I am living in Keble-----I understand all the information provided to me by the principal investigators, the research conducted in our Keble requires my participation. If it is useful, I am willing to participate in the discussion.

Focus Group Discussion Topic Guide

Name of FacilitatorName of Note taker

Date..... Place of discussion

Time discussion started.....Time ended.....

Number of Participant

Occupation of participants, Farmers.....Merchants.....daily laborer.....

Governmental employer.....House wife.....

Age of participants, 15-25 years.....26-36 years.....37-47 years> 48years.....

Introduce moderators, not takers, participants and introduce the objective of the discussion and topics.

I am interested to know about the factors that influence the women to select delivery place. I hope that your answers to my questions will important to understand the situation and it will helpful to improve maternal health care in this area.

I expect our discussion will last about 40-60 minutes. Thank you. Agree on group norms and confidentiality.

First, I would like to ask you some general questions about your delivery place:

- ❖ How pregnancy and child birth is perceived in your community?
- ❖ How do you get it the approach of health workers to ward laboring mother?
- ❖ What are the common reasons are there majority of local women are afraid to go to hospital?
- ❖ What are the religions, traditional and cultural practices of the community during child birth?

Thank you all for your time and ideas. This has been extremely helpful. As I said in the beginning, the purpose of this discussion was to know about factors that influencing the community to select delivery place. I hope this study will help full to address the problems and improve the service in this area.

Annex 4

Affan Oromo version FGDs topic guide and consent form

Maqa Haala Mijeessa _____ Maqaa Bareessa _____

Guyyaa _____ Iddoo Marii _____

Yeeroo Mariin eegalamee _____ Xumuuramee _____

Bayiina Hirmaatoota _____

Gita hojii Hirmaatoota , Qoote buula _____ Daldaala _____ Hojata human _____ Hojjata Motuummaa _____ Hadha Mana _____

Umrrii Hiraatoota ,wagaa 15-25 _____ 26-36 _____ 37-47 _____ >48 _____

Haala mijeeraan fi bareessaan off beeksiisanii kayyoo marii kan ni ibsaama.

Ani dubartooni naannoo kana bakka da'uumsaa akkam akka filataam beekkuu barbaada. Deebii gaafii kootiif gootan ,haala da'uumsa siiriti hubachuuf/beekuuf fi foyye'iinsaa ittii goochuuf nagargaara.

Mariin kun daqiiqa 40-60 fudhachuu danda'aa. Galaatomma .

Gareen deebiidhaaf qopheeta ta'uu mirkaneessun, barbachiiisadhaa.

Duraan dursse bakka da'uumsa kessaan ilaalchissee gaafi waaligala issin gafadhaa.

- Uummatnii kuun Uulfa'uu fi da'uun akkamittii ilaala? (Uulfa'uu fi da'uun uummata kanaatii akkamittii ilaalama?)
- Menna kessa yemmu dalltanni akaa adda kessni itii wan godamuu jiira?
- Sababooni caalumaan dubartooni hospital akka hindamnee sodachisaan maalfaa?
- Hojtonii faya dudertii cimiimuu irra jiirtu akamii itti kunuunsanii?
- Yeero da'uumsa ,Hojiimata addaa, amantii hawaasaa naanoo kanaatiin maaltuu godhaman?

Yeeroo kessani fi beekuumsaa kessan waan naa keenitaniif galatooma . Waan fayyiida guuda qabuu argadheera. Akkuma seensa irrati issiinif himeeti, wantoota (sababoota)YKN uulagoota bakka da'uumsa filaachuu beekudhaa.Qorannoon kun rakkina naannoo kana furuuf fi tajaajila da'uumsa foyeesuuf nudandesiisa.

ANNEX 5

DECLARATION

I THE UNDER SIGNED DECLARE THAT THIS THESIS IN MY ORIGINAL WORK HAS NOT BEEN PRESENTED FOR A DEGREE IN ANY OTHER UNIVERSITY AND ALL THE SOURCE OF THE MATERIALS USED FOR THIS THESIS WORK AND ALL PEOPLE AND INSTITUTIONS WHO GIVE SUPPORT FOR THIS WORK ARE FULLY ACKNOWLEDGED

NAME OF THE STUDENT-----

SIGNATURE -----

PLACE OF SUBMISSION-ADDIS ABABA UNIVERSITY COLLAGE OF HEALTH SCIENCE SCHOOL OF GRADUATE STUDY CENTRALIZED SCHOOL OF NURSING

DATE OF SUBMISSION-----

THIS THESIS WORK HAS BEEN SUBMITTED FOR FINAL WITH MY APPROVAL AS UNIVERSITY ADVISOR

NAME OF THE ADVISOR-----

SIGNATURE-----