Utilization of Institutional Delivery among Women of Child Bearing Age in Lume Woreda East Shewa Zone

A Thesis Submitted to the School of Graduate Studies of Addis Ababa University, College of Health Science Department of Public Health in the Partial Fulfillment of the Requirements for the Degree of Master of Science in Reproductive Health

By

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Advisor Dr. Mirgissa Kaba (PhD)

June, 2014

Addis Ababa, Ethiopia

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SCHOOL OF GRADUATE STUDIES
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Abbreviations

MCH	maternal child health
MMR	maternal mortality ratio
MDG	millennium development goal
EDHS	Ethiopian Demographic Health Survey
HIV/AIDS	human immune virus/acquired immune deficiency syndrome
WHO	world health organization
ANC	ante natal care
SPSS	statistical package for social scientists
TTBA	trained traditional birth attendant
TBA	traditional birth attendant
PNMR	pre natal mortality rate
UNICEF	united nation‘s children education fund
HEW	health extension worker

Abstract

Background: Reducing maternal morbidity and mortality is a global agenda. With maternal mortality ratio of 676 per 100,000 live births, maternal mortality and morbidity levels in Ethiopia are among the highest in the world. It has long been recognized that delivery in medical institution under the care and supervision of trained health-care providers promotes child survival and reduces the risk of maternal mortality. Yet, still majority of mothers in Ethiopia deliver at home and the case in Oromia is even worse where institutional delivery is documented to be less than national figure (5%vs 6% in 2005)and(8%vs 10% in 2011). It implies that home deliveries could result in maternal death due to hemorrhage and lack of appropriate management.

Objective: This study seeks to identify factors that influence institutional delivery among women of 15-49 years of age in Lume district, East Shewa Zone, Oromia region.

Method: Mixed methods cross sectional community based study was carried out among women of child bearing age in Lume woreda from February to May 2014. Multistage sampling technique was used to select the study subjects for the survey while purposive sampling was used to identify participants for qualitative study. Structured questionnaire was employed to determine socio-demographic and obstetric factors that affect utilization of institutional delivery. In-depth interview was employed to explore cultural beliefs and practices that determine utilization of institutional delivery.

Results: Out of 465 mothers who participated in the survey, 37% of them reported to have delivered at health facility. Those women participants and their husbands with secondary and above levels of education were found to consider institutional delivery than those with no education AOR=6.40, 95%CI=3.37-12.16 and AOR=4.76, 95%CI=2.33-9.72. Mothers who reported severe hemorrhage as pregnancy and delivery complication were found to have delivered more in health facility than who did not report AOR=2.96, 95%, CI=1.47-5. Unfriendly approach of health workers, husbands‘ influence on choice of delivery point and mothers‘ preference of home delivery influence utilization of institutional delivery

Conclusion: This study shows that institutional delivery was still low compared to national target although it is higher than the national report for institutional delivery. Education, reported severe hemorrhage were found to determine decisions to institutional delivery. Participants‘ perception towards health workers, husband influence on place of delivery and mothers‘ preference of home delivery were among the main barriers for institutional delivery. This implies that mothers who give birth at home assisted by non professional are liable to death due to complications and infections. Therefore; increasing formal education by government and empowering of women on choice of place delivery as well as promoting awareness about value of institutional delivery as compared to home delivery would improve institutional delivery

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1. Introduction

1.2. Background

Maternal mortality is increasingly recognized as a violation of women's right to survive pregnancy and childbirth(1). Each year around four million newborns die in the first week of life worldwide especially in low and middle-income countries where majority of deliveries occur at home and without the assistance of trained attendants (2).

+Globally about 585,000 women die each year due to conditions related to pregnancy and child birth 99% of which occur in developing countries. Over three quarter of maternal deaths is due to causes directly related to pregnancy and childbirth (3).

More than 60% of maternal deaths occur immediately following delivery, with more than half occurring within a day of delivery. The Millennium Development Goals (MDGs) had set maternal mortality ratio (MMR) and proportion of births attended by skilled health personnel as process indicators to reduce maternal mortality and ensure maternal health. Skilled attendance during labor, delivery and the early post-partum period could reduce an estimated 16–33% of maternal Deaths. However, only 61% of births are attended by a skilled health worker globally. In spite of the national and global efforts at reducing maternal morbidity and mortality through the safe motherhood initiative, there is no significant reduction in maternal morbidity and mortality in developing countries Access to skilled delivery care is very low in sub-Saharan Africa, where half (50.4%) of all maternal deaths occur(4). The two indicators for Millennium Development Goal 5 reduction of the Maternal Mortality Ratio and increased use of skilled birth attendance reflect the present challenges for Ethiopia (5). In Ethiopia, institutional delivery is very low as compared to other countries; only ten percent of women give birth at health facilities. Over 90% of the deliveries take place at home and mostly without the assistance of medically trained personnel (3). However; giving birth in a medical institution under the care and supervision of trained health-care providers promotes child survival and reduces the risk of maternal mortality, according to Ethiopian Demographic and Health Survey (EDHS) of 2005 and 2011, the proportion of women utilizing safe delivery service in the country in general and in Oromia region in particular is very low. Of the 30% eligible mothers who received Ante Natal Care (ANC) service only 8% sought care for delivery in the region(6). This shows that still there are some factors that influence choice of place of delivery need to be explored.

1.2. Statement of the problem

Delivery in health facilities is still challenging in developing countries including Ethiopia where higher number of women attend ante natal clinic but more of them give birth at home without assistance of skilled professional. Low delivery in health facilities as a result leads to high morbidity and maternal mortality. Home delivery among others increases the risk of transmission of HIV/AIDS. Based on EDHS data from of 2005 and 2011, institutional delivery in Oromia region was found to be less than national figure (5%vs 6% for 2005and 8%vs 10% for 2011). Despite all these problems, a high proportion of births continue to occur at home in unhygienic conditions without any skilled care and without the essential infrastructure needed to refer in the case of complications The above data shows that institutional delivery is low and many women give birth at home. This shows that there are still some factors which could be barriers for institutional delivery need to be explored.

Therefore, this study seeks to identify factors that contribute to low utilization of institutional delivery at the study area and attempts to forward recommendations to fill the gap.

1.3. Significance of the study

The study was conducted to identify different factors that affect utilization of institutional delivery among women of childbearing age in the study area. It is possible to expect that identification of factors that determine utilization will support the women in the study area to utilize maternal health care /delivery service in the health facility. Mothers could deliver their babies in an appropriate setting, where life saving equipments and hygienic conditions can also help reduce the risk of complications that may cause death or illness to mother and child through contributing to health improvement in the woreda. Furthermore the study will provide evidence to all stake holders, woreda managers and women as to the possible barriers in utilizing the services.

The aim is that provision of such vital information would inform better strategy in eliminating the barriers. This would contribute significantly in reducing delivery complications and thereby reducing maternal deaths.

Therefore, this investigation will realize the extent of the problem and draw some recommendations for planners and programme managers in the study area.

2. Literature Review

2.1Magnitude of Institutional / non-Institutional delivery:

Maternal deaths remain unacceptably high in many parts of the world(7). Studies conducted at different time showed that in 2008, 358,000 maternal deaths occurred worldwide, which was a 34% decline from the level of 1995. Notwithstanding this overall decline, 99% of these deaths occurred in developing countries. Over 25% of all maternal deaths during delivery and within the first 24 hours after delivery occur in developing countries. 50% of maternal deaths occur within the first week after delivery due to delivery complications(8). Despite all these problems in the developing world, a high proportion of births continue to occur at home in unhygienic conditions without any skilled care and without the essential infrastructure needed to refer in the case of complications(9). Although all women and babies need pregnancy care, care in childbirth is the most important for the survival of pregnant women; however, around the world, one third of births take place at home without the assistance of a skilled attendant. WHO strongly advocates for –skilled Care at every birth" to reduce the global burden of 536 , 000 maternal deaths every year(10)**.**

In 2010, approximately 287,000 women died in childbirth or from pregnancy complications, where most of them were in poorer countries(7). The latest estimates from the World Health Organization indicate that each year about 3.7 million children die within the first 28 days(11-12).

Maternal mortality remains a pressing problem in the developing world. To date, few countries are on track to meet Millennium Development Goal 5 (MDG 5), which aims for a 75% reduction in maternal mortality by 2015. The statistics are particularly alarming in sub-Saharan Africa, where the lifetime risk of dying from childbirth is 1 in 31, as compared to 1 in 4,300 in industrialized countries(13). Similarly the life time risk of dying in pregnancy or shortly after delivery stands at 1 in 30000 in Sweden and 1in16 in sub-Saharan Africa perhaps the largest differential between rich and poor countries of any health statistic(14). In developing countries, specifically in sub-Saharan countries, maternal morbidity and mortality remains a public health problem(11). Place of delivery is an important aspect of reproductive health care, although studies in Tanzania showed that almost half of all deliveries in Tanzania take place at home(15). Another similar study indicated that most of the women in India deliver their babies at home without professional help(16). Countries where skilled attendance and institutional delivery rates are low usually have a high PNMR(17); however, there has been persistently low utilization of skilled birth attendance(18).

The study conducted in the rural Mozambique indicated that even if the coverage of prenatal care in much of rural sub-Saharan Africa has greatly increased, institutional deliveries continue to lag behind as a substantial share of rural women give birth outside clinic settings and without professional obstetric care. Ensuring universal institutional deliveries is an important challenge of rural maternal and child health (MCH) care systems in resource-limited settings. Even in settings where maternal and child health care is heavily subsidized or free, a substantial proportion of women do not deliver at health facilities thereby jeopardizing their health and that of their babies. Some of the reasons why women delivered at home without skilled attendance despite receiving antenatal care at a health centre and their perceptions of prenatal care included onset of labor at night, rainy season, rapid labor, socio-cultural factors and health workers' attitudes were related to the women delivering at home(19).

The study conducted in Nepal showed that despite few improvements 81% of women still give birth at home without the presence of skilled birth attendants(20). About 35% of women in developing countries receive no antenatal care during pregnancy; almost 50% give birth without skilled attendants and 70% receive no postpartum care. Another study conducted in Tanzania, showed that Tanzania is among the sub-Saharan countries with high maternal mortality ratios ranging from 578-960 per 100,000 live births. Of all deliveries only 53% occur in health facilities, the rest are home deliveries without skilled attendants(21).

The vast majority (73%) of birth takes place at home in rural area of Nepal among them 55% of women are assisted by traditional birth attendants and relatives. Some 40% deaths occur at home, 14% in transit to health facilities. The study revealed that home deliveries are associated with increased maternal morbidity related to the third stage complications(20).

Study conducted in Central Tanzania indicated that proportion of women in the study population that uses health facility for delivery and hence being attended by skilled birth attendants was still low when compared to the national target (54 vs. 80%)(21). In Ethiopia, the proportions of births attended by skilled personnel are very much lower than SSA. Even for women who have access to the services, the proportion of births occurring in health facilities is very low. Only 6% of births were delivered in health facilities and, there is no significant difference in proportions of delivery service utilization between EDHS 2000 and 2005; however this figure moderately increased to 10% in EDHS

2011(22). The utilization of health facilities for delivery service still stagnates at lower level despite a rapid expansion of the health sector throughout the country(23).

Studies conducted in Chilga Woreda showed that however; Institutional delivery with skilled care of the mother is one of the interventions proven to reduce the risk of complications that can cause maternal and neonatal mortality, a total of 402 (84.2%) women gave birth at home. Previous experience of skilled institutional delivery had a limited role in subsequent acceptance or use of institutional delivery. Most mothers who had previously had institutional delivery gave birth at home(24). The study conducted in Sekela district indicated that 12.1% of the mothers delivered in health facilities. Of 87.9% mothers who gave birth at home, 80.0% of them were assisted by family members and relatives(22). The study conducted in Woldia town also showed that among 471 respondents, 227 (48.3%) gave their last birth in health institutions, while 243 (51.7%) gave birth at home(25).

2.2 Factors Affecting Place of Delivery:

Study conducted in Pakistan showed that, Parity and education had the largest impact on institutional delivery: women were substantially less likely to deliver at a health facility after their first birth; women with primary or higher education were much more likely to have an institutional delivery. Age, autonomy, household wealth, proximity to a health facility and exposure to mass media were also important drivers of institutional delivery(26).

The study conducted in Western Nepal indicated that, main reasons cited for delivering at home were 'preference' (25.7%), 'ease and convenience' (21.4%) for planned deliveries while 'precipitate labor' (51%), 'lack of transportation' (18%) and lack of escort' during labor (11%) were cited for the unplanned ones. In Nepal, approximately 90% of births occur at home(27).

Similar study conducted in Kenya showed home deliveries without a skilled attendant are chosen or occur for a variety of reasons, including long distances or difficult access to a birth facility, costs of services and perceived lack of quality of care in a health facility(28).

Another study conducted in rural Tanzania also showed that Issues of risk and vulnerability, such as lack of money, lack of transport, sudden onset of lab our, short lab our, staff attitudes, lack of privacy, tradition and cultures and the pattern of decision-making power within the household were perceived as key determinants of the place of delivery (29).

Study conducted in Ethiopia at country level indicated that only 16% of deliveries were assisted by health professionals, while a significant majority (78%) was attended by traditional birth attendants. The most important reasons for not seeking institutional delivery were reported as the belief that it is not necessary (42%) and not customary (36%), followed by high cost (22%) and distance or lack of transportation (8%)(30). The study conducted in Arsi zone indicated the reason for preferring home delivery**,** 492(54.8%) was reported that their labor was short, 218(24.2%) absence of nearby health facility, 184(20.5%) preferred to give birth in the presence of close relatives and 174(19.4%) fear of manipulation in the health facility(3). The study revealed that a total of 13.5% of mothers gave birth to their last babies in health facilities. The reported reasons were: absence of health problems, short duration of labor, preferring the attention of relatives and trust in traditional birth attendants.(23, 31)

Study conducted in Dodota woreda indicated that out of 506 respondents only 92(18.2%) gave birth to their last child at health facility whereas 414(81.8%) gave birth for their last child at home. The factors that were found to be associated with institutional delivery were residential place, educational level of mothers, previous history of prolonged lab our, and final decision made by husbands or relatives(6). Another study conducted in Holeta showed that among 161 women who delivered at home 97 (60.2%) reported that they prefer to deliver at home where close relatives are nearby than Health Institutions, 20.5% reported that they prefer to give birth at home because they dislike mistreatment by health workers, 19.3% reported they have more trust on TBAs than health professionals(32). Similar study conducted in Metekel zone, Northwest Ethiopia indicated that out of a total of 1038 mothers were interviewed giving a response rate of 97.9%, 125 (12.0%) of the subjects received save delivery service for their last delivery. Of all respondents, 816 (78.6%) were knowledgeable about save delivery service, but 503 (72.6%) of home deliveries were reported to have been attended by relatives /family(33). Similarly, study conducted in Munisa Woreda indicated that out of the total respondents, only 105 (12.3%) gave birth at health facilities (hospitals and health centers), and the vast majority (87.7%) delivered at home. Mothers gave a variety of reasons for delivering at home. For example, 450 (52.6%) said that delivering at home was the norm or the usual practice(34). Study conducted in South Omo pastoral area of Ethiopia also showed that Mothers' educational status has highly influence on mother health seeking facility based assisted delivery by a health professional(35).

2.3 Conceptual Frame work

This study has used a conceptual frame work which was adapted and modified after literature review. The detail of framework is displayed in figure1 below. The arrows in the diagram show interaction between the variables where most of the variables are interrelated to each other

As depicted in the diagram the utilization of institutional delivery is affected by socio-demographic, obstetric and individual factors.

Conceptual frame work of factors affecting utilization of institutional delivery among women of child bearing age

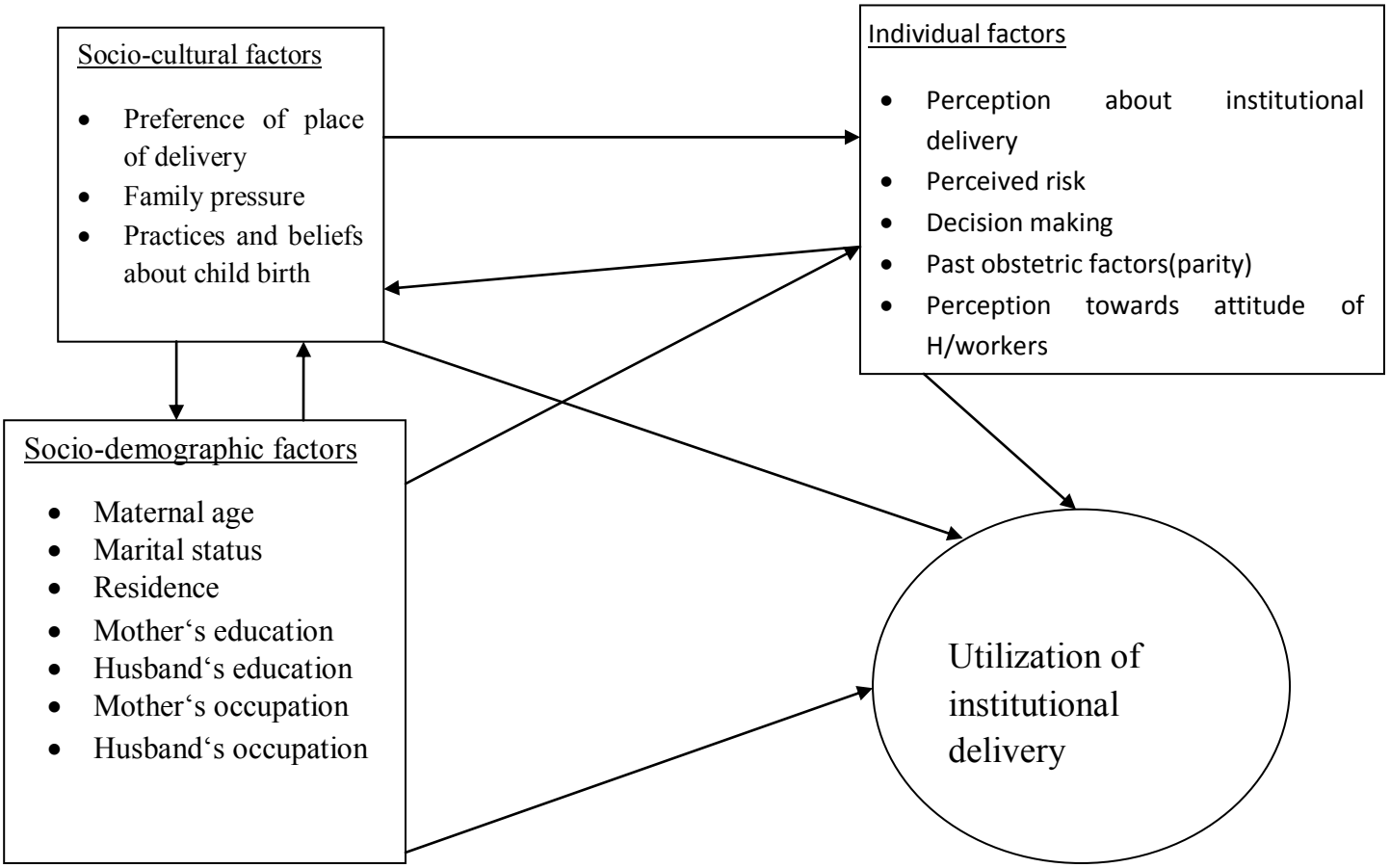

Figure 1 Conceptual frame work of Institutional delivery

3. Objective

3.1 General objective:

To determine the level of institutional delivery and associated factors on utilization of services among women of reproductive age groups Lume woreda, east shewa Zone

3.2 Specific objectives :

- To determine the level of institutional delivery in the Woreda.
- Identify factors associated with choice of delivery points.
- Identify perceived decision makers at community level on choice of delivery points.
- To explore cultural practices and beliefs on choice of place of delivery.

4. Methods

4.1 Study area & period:

The study was conducted in Lume woreda East Shoa Zone. The district is located 75km South East of Addis Ababa. It is structured into 35 kebeles of which 33 rural and 2 are urban. The current total population of the district is 106,498 and of these 23,430 are women of reproductive age group (planning team of the district). The Health infrastructure in the district comprises of 5 health centers, 35 health posts, 2 drug stores and 10 private clinics. With regarding to staffing 5 public health officers, 8 BSC nurses, 27 diploma nurses and 62 health extension workers. Ante natal care (32.9%), delivery (8.6%) and post natal services (39%) were provided in the woreda.

4.2 Study period:

The study was conducted starting from February to May, 2014.

4.3 Study design

A community based cross-sectional study design was employed.

4.4 Source population:

All Women of child bearing age (15-49) years in Lume woreda.

4.5 **Inclusion Criteria:** Women of reproductive age (15-49years) who gave birth at least for the second time in the past five years, where the most recent deliveries were considered during data collection. This is because of Oromo culture those women who give birth for the first time usually delivers at their parents‘ home.

4.6 **Exclusion Criteria**:

Women of reproductive age group and those who gave birth for one time only prior to the study period and also those who were not healthy and not interested to respond to the questionnaires.

4.7 Study subjects:

Women of reproductive age group in households who gave birth at least for the second time in the past five years prior to the study period and were living in selected kebeles of study area.

4.8 Sample size determination

Sample size for quantitative study:

The required sample size was determined by using a single population proportion sample determination formula considering the following assumptions:

Proportion of institutional delivery 10%, country level, p= 10%

Level of significances =95%

Margin of error=4%

Non respondent rate=10%

The formula for calculating the sample size was:

$$n = \frac{Z^2_{\alpha/2}\, p(1-p)}{d^2}$$ **=216, design effect 2**

And plus (10%) non respondent rate = 475

n = Sample size needed= 475

4.9 Sampling techniques:

For quantitative study, multistage cluster sampling method was used to select the study subjects. The woreda has 35 kebeles, where kebeles of the Woreda were clustered in to 5 strata according to their geographical location. From each stratum one kebele was selected by using simple random sampling method. The sample size was distributed to 5 kebeles proportional to the size of their population. The households with a woman of child bearing age and have an experience at least two births in past five years prior to the study period were selected using systematic random sampling based on the sampling frame obtained from health extension worker of each kebele. The sampling interval of the household in the kebele was determined by dividing the total number of estimated 2035 households to the allocated sample size 475 which result in an interval of 4^{th} households.

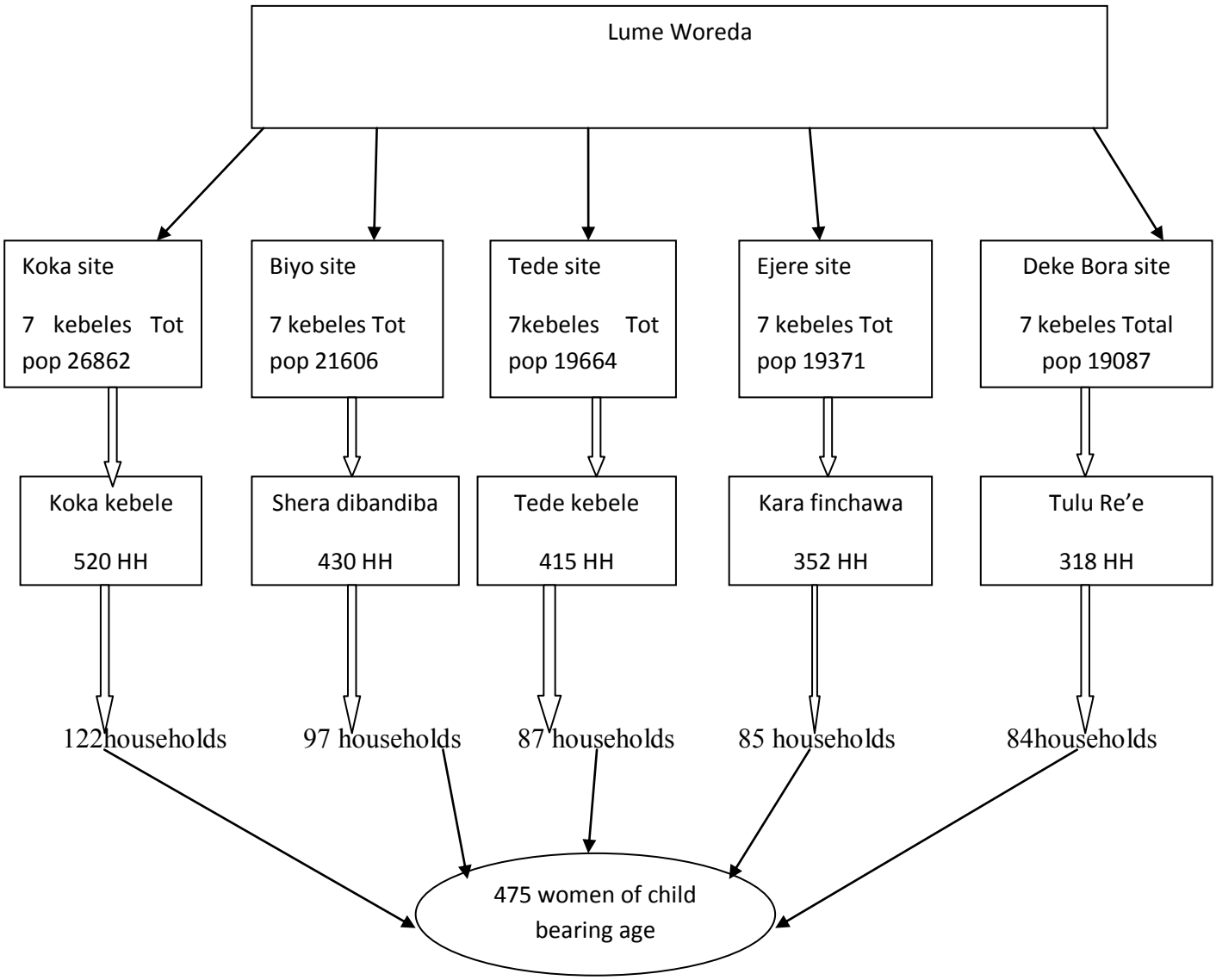

Figure 2 Schematic presentation of sampling procedure

4.10 Variables

4.10.1 Dependent variable: utilization of institutional delivery.

4.10.2 Independent variable: Socio demographic characteristics, Obstetric factors, cultural practices and beliefs, and power of decision making in the family.

4.11 Data collection tools:

A. Quantitative method:

The data was collected using structured questionnaires which were prepared with English then translated to local language, Afan Oromo and back translated to English to ensure consistency. Necessary orientation or training was given to supervisors, data collectors and study subjects concerning the whole purpose of the research project, where discussion with the data collectors and supervisors on the questionnaire were part of training. Spot check up was done in the field.

B. Qualitative data collection method:

For qualitative method, women who delivered at home were identified from three kebeles with assistance from health extension workers of the respective kebeles. A total of seven such women were interviewed and data got saturated at that level.

Before the interview, research participants were were oriented on the type of information required from them and informed consent was secured. Data was collected using topic guide by the principal investigator with key informant women. Structured and open ended questionnaires along with field note were utilized to carry out the in-depth interview in order to explore cultural practices, beliefs & perception of participants on choice of place of delivery. The average time taken by each key informant was 25 to 30 minutes. Field note was used during recording of the interview.

4.12 Data collectors

Eight data collectors were those who have completed grade 12 and were living in the study community and 2 public health officers were supervisors. All data collectors & supervisors were trained adequately for two days and had performed practical exercises to be familiar with the questionnaire.

4.13 Data processing and analysis

The quantitative collected data entered into EPI info version 3.5.4 and transported, cleaned and analyzed using SPSS version 20. Frequencies and percentage of different variables were computed for description as appropriate. Odds ratio with 95% confidence interval was computed to determine

the degree of association between the dependent and independent variables, multivariate analysis was used for better prediction of determinants and to reduce bias due to confounders. Level of significance was taken at p value <0.05. Qualitative data collected were analyzed according to verbal data generated through key informant by transcribing, translating, coding and categorizing the responses of the informants according to main thematic areas. (See Annex1)

4.14 Data quality control

Data quality was ensured during collection, coding, entry and analysis. Before data collection, adequate training and orientation was provided to data collectors and supervisors. Codes were given to the questionnaires during data collection so that any identified problems were solved using the codes. Moreover the questionnaires were pre tested on one of unselected district kebele which was 5% of the total sample. In addition the supervisors and principal investigator supervised data collection and checked filled questionnaires every day for completeness, correctness and necessary corrections were made timely.

4.15 Ethical consideration

The study protocol was approved by the ERC (ethical research committee) of the school of Public Health of Addis Ababa University. Based on the approval, an official letter was written by the School of Public Health to Zonal health department. Explanation on the objective of the research was provided to the concerned personnel at zonal level and the zone also wrote official letter to the woreda health office. Similarly, the woreda wrote the letter to the health facilities and kebeles for cooperation. At last data have been collected after assuring the confidentiality nature of responses and obtaining oral consent from the study participant. All the study participants were encouraged to participate in the study and at the same time they were told also that they have the right not to participate.

4.16 Result dissemination

The finding of the research will be submitted to the School of Public health and East Shoa zone health department. The results will be presented at SPH organized seminars and appropriate conferences. And, the findings will be published and disseminated through different journals and scientific publications.

4.17 Operational definition:

1. Maternal health: refers to health of a woman during delivery period.
2. Skilled attendants : refer to people with midwifery skills (midwives, doctors and nurses with additional midwifery education) who have been trained on skills necessary to manage normal deliveries and diagnose, manage or refer obstetric complications' (WHO).
3. Utilization of Institutional delivery: is giving birth at health facility.
4. Home delivery: delivery took place at locations other than health facility.
5. Culture: is the system of shared beliefs, values and practices that the members of societies are influenced by to choose place of delivery.
6. Educational status: refers to no education, primary, secondary and more than secondary education.

Result

A total of 465 women who had given births for the second time in the preceding five years before the survey were interviewed and gave the response rate of ninety-eight percent(98%).

4.18 Socio-demographic characteristics of the respondents

347 (74.6%) and 118 (25.4%) of mothers reside in rural and urban, respectively. The respondents minimum age were seventeen and the maximum were forty three years with mean age ± (SD) of 30.11 ± 6.6 years. From the qualitative finding the age range of key informant mothers were 24 to 43 and all of them were married. 458 (98.5%) of the respondents were currently married.

Regarding ethnicity 329 (70.8%), 133 (28.6%), and the rest few of the respondents belong to Oromo, Amhara and other ethnic group, respectively. Among the respondents 443 (95.2%) were orthodox Christians and the rest 22 (4.8%) belong to other religious denominations. Qualitative finding also shows that all participants were Oromo and religions were orthodox.

222(47.5%) of the respondents were found to have never attended any formal education while 212(45.6%), and 31 (6.7%) attended primary education, secondary and above respectively. Regarding their husbands' education 181 (39.3%) had no any formal education, while 223(48.4%), 57 (12.3%) of them attended primary education, secondary and above, respectively. Out of the seven key informants 4 of them had no formal education whereas the rest were found to have completed primary education. Of the total research participants (95.1%) of the respondents had received health education on maternal health while 23 (4.9%) of mothers did not. 429 (92.3%) pointed out health extension workers as the main source of information on maternal health whereas 147 (31.6%), 58 (12.5%), and 21 (4.5%) mentioned radio, television and community reproductive health agents as sources of information, respectively. With respect to occupation of respondents 404 (86.9%) of them were housewives, 35 (7.5%), 26 (5.6%) of them were daily laborers and others by their occupation, respectively. Husbands occupation shows that 317 (68.8%) were farmers, whereas 121 (26.2%) were daily laborers and the rest 22 (5%) were others. The occupations of all key informants were housewives. (See table 1).

Table 1 Socio-demographic characteristics of the Respondents Lume woreda, East shewa Zone Oromia May, 2014 (N=465)

Variable	Frequency	Percentage
Age in years		
Mean age ± SD	30.11±6.6	
15-19	17	3.7
20-24	86	18.5
25-29	121	26
30-34	93	20
35-39	105	22.6
40-44	43	9.2
marital status		
Married	461	99.2
Single	4	0.8
Residence		
Urban	118	25.4
Rural	347	74.6
Religion		
Orthodox	443	95.2
Others	22	4.8
Ethnicity		
Oromo	329	70.8
Amhara	133	28.6
Other	3	0.6
Educational status of women		
No education	222	47.7
Primary education	212	45.6
Secondary education and above	31	6.7
Occupation of women		
House wife	404	86.9
Daily laborer	35	7.5
Others	26	5.6
Occupation of husband		
Farmer	317	68.8
Daily laborer	121	26.2
Others	23	5
Educational status of husband		
No education	181	39.3
Primary education	223	48.4
Secondary education and above	57	12.3

5.2. Obstetric characteristics of Respondents

At the time of survey, the majority of mothers (38.7%) of them had 2 live births, 85 (18.5%) 3 and 200 (43%) of them had 4 and above births.

386 (83%) of the respondents attended ante natal care at health facility during recent delivery while 79 (17%) of the respondents did not. Regarding the frequency of attendance of ANC, 170(43%), 160 (41.5%), 48 (12.4%), of the respondents visited health facility for four, three, two, and the rest few of them visited for one time respectively. From the qualitative finding all participants reported that they attended ANC service with frequency of three times and above at health facility irrespective of place of delivery.

Different reasons were mentioned by respondents for follow up of ANC of recent delivery. The most commonly raised reasons were: to know fetus status which was 253 (65.5%), to know her health status was 223 (57.8%), 64 (16.5%) reported because of being sick, and the rest 24 (6.2%) said because of good service at health facility.

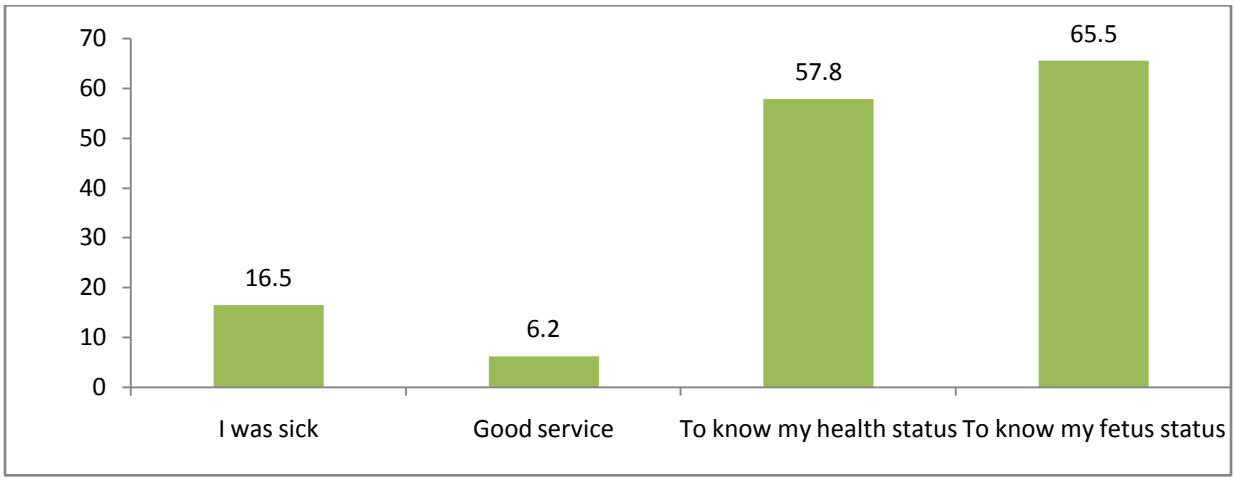

Figure 3 Reasons for mother's ANC visiting Lume woreda East Shoa Zone Oromia May, 2014

Out of three hundred eighty-six mothers who attended ANC service, 363 (94%) of them got information on where to deliver and delivery complication whereas a few number i.e. 23 (6%) of the mothers indicated that they did not get information. Regarding the type of information mothers received, 37 (9.6%), 141 (36.6%) 136 (35.3%), and 67 (17.4%) of them mentioned one, two, three and four, complication of delivery, respectively whereas a few of them mentioned five which is shown in table 2 below.

Table 2.Obstetric characteristics of Lume woreda, East shoa Zone Oromia, May, 2014

Variable	Frequency	Percentage
Number of births mother ever had (parity)		
two	180	38.5
three	85	18.5
Four and above	200	43
Attendance of ANC for recent delivery		
yes	386	83
no	79	17
Number of ANC attended (=386)		
Once	8	2.07
Twice	48	12.4
Three times	160	41.5
Four times	170	44
During ANC mothers received advice where to deliver(n=386)		
yes	363	94
no	23	6
During ANC follow up mothers got information about delivery complications(n= 386)		
yes	363	94
no	23	6
Types of information provided(n=386)		
severe vaginal bleeding	351	90.9
severe head ache	56	14.5
marked fast weight gain	66	17
fetal movement cessation	102	26.4
prolonged labor	300	77.7
retained placenta	140	36.3
Reasons for not to follow up ANC(n=79)		
No health problem	62	78.5
Work load	7	8.9
Afraid fee	3	3.8
Poor handling of health worker	9	11.4
Feel shame	3	3.8

5.3. Awareness of respondents about pregnancy and delivery complications

Regarding awareness of mothers‘ place of delivery, the majority of them (98.4%) reported that there is a difference between giving birth at home and health institution. Different reasons were mentioned for recent institutional delivery. Among them 326 (70.1%), 300 (64.5%), 251 (54%), 217 (46.7%), 214 (46%) and 182 (39.1%) of respondents reported that if delivery were conducted at health facility, there would be no bleeding, saves mother life, no retained placenta, health facility is clean, saves child life and shorter labor respectively.

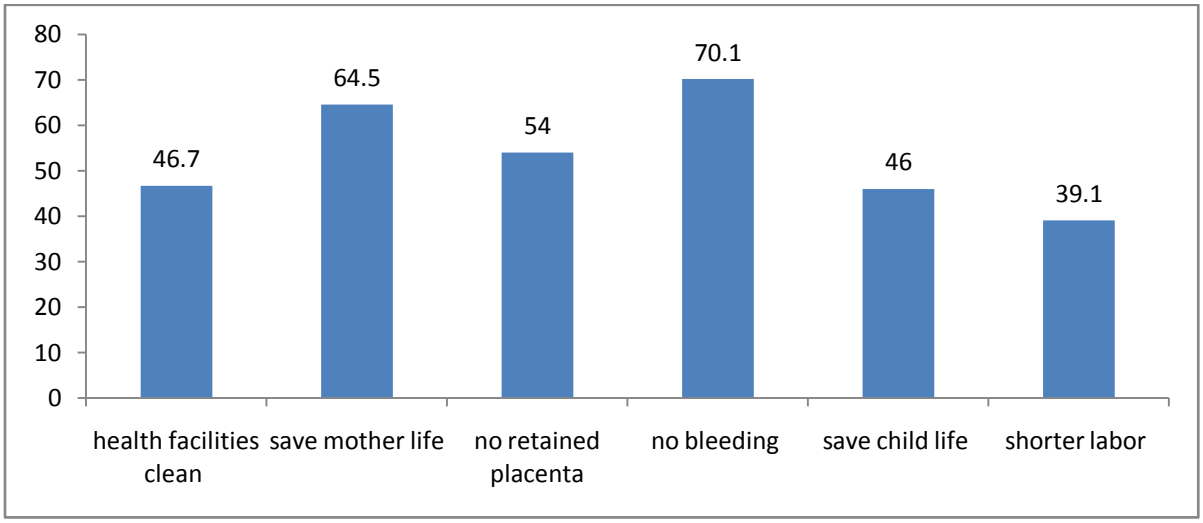

Figure 4 Reasons for institutional delivery Lume woreda East Shoa zone Oromia May, 2014

Regarding mothers‘ awareness on their susceptibility to pregnancy and delivery complications, 224 (48.2%) almost nearly half of the respondents reported that every mother including herself is susceptible to pregnancy and delivery complications while the rest 143 (30.8%) 101 (21.7%) 47(10.1%) and 33 (7.1%) said that primi-gravida, mothers with multiple pregnancy, mothers with other medical problems and multi-gravid mothers are susceptible to pregnancy and delivery complications, respectively.

Concerning to the occurrence of complication type during delivery, 417 (89.7%), 338 (72%), 266 (57.2%), and 40 (8.6%) of respondents mentioned that severe hemorrhage, prolonged labor lasting than 12 hours, retained placenta lasting than 30 minutes and loss of consciousness are labour complications that can occur during child birth, respectively.

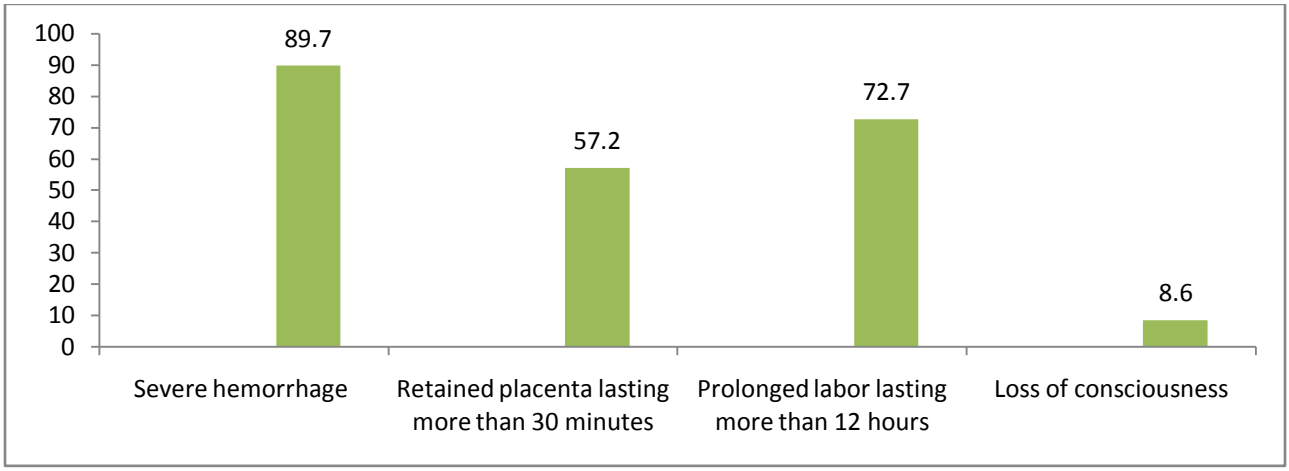

Figure 5 Reasons for institutional delivery Lume woreda East Shoa zone Oromia May, 2014

This was also supported with qualitative finding & is stated as follows:

Perceived risk of home delivery/danger signs during delivery

The key informants were asked about the risk following connection to home delivery and almost all participants pointed out abnormal presentation of fetus, prolonged labour and excessive bleeding were some of the danger signs perceived to occur during home delivery and one of the participants reported:

"I think there might be excessive bleeding, abnormal presentation of fetus and prolonged labour which is more frustrating if it occurs during home delivery that could result in the death of mother and child"(28 years old woman, Shara Dibanadiba kebebele).

At the same time when explaining the danger signs during delivery one of the key informants said:

"There might be retention of placenta, prolonged labour and excessive loss of blood which may result in loss of life of mother and child. If these complications would occur during home delivery, the severity might be more. In addition, there is abdominal massage of laboring mother to facilitate delivery at home which might have its own risk, but it is possible to prevent these complications that could occur during delivery by assistance of health worker at health facility"(38 years old woman, Dildima kebele)

Table 3 Awareness of respondents towards pregnancy and delivery complication Lume woreda, East shewa Zone, Oromia region May, 2014

Variable	Frequency	Percentage
Awareness about difference between giving birth at home or health facility		
Yes	462	99.4
no	3	0.6
Respondents ever had health education on maternal health		
Yes	442	95.1
no	23	4.9
Source of information on maternal health		
Health extension workers	429	92.3
Community based reproductive health agents	21	4.5
Radio	147	31.6
Television	58	12.5
Mothers susceptible for pregnancy and delivery complications		
Every mother including myself	224	48.2
Primi-mothers	143	30.8
Multi gravid mothers	33	7.1
Mothers with multiple pregnancy	101	21.7
Mothers with other medical problems	47	10.1

5.4. Characteristics of respondents' history of recent delivery

The majority of respondents (63%) gave their last birth at home while one hundred seventy-two (37%) of the mothers reported that their delivery were at health institution. Different reasons were mentioned for their preference of home delivery for their last birth. Among the reasons the most commonly raised was labor was easy, which were 190 (64.85%) followed by sudden onset of labor, 55 (18.77%) and 38 (12.97%) of the responses were poor services while very few of the respondents said that because of poor skill of health workers, transport problem, sickness and long distance of health facility. Regarding to decision making on the choice of place of delivery, 260(55.9%), 178 (38.3%), 24 (5.2%) of the respondents said that decision was both by her and her husband, herself, and her husband, respectively. Qualitative finding shows that usually husbands make decision on choice of place of delivery as it was stated by each key informant and explained as follows:

"If delivery was supposed to be in health institution, mostly the decision would be by my husband because he is the one who covers all necessary ones".(40 years old woman, Tede kebele)

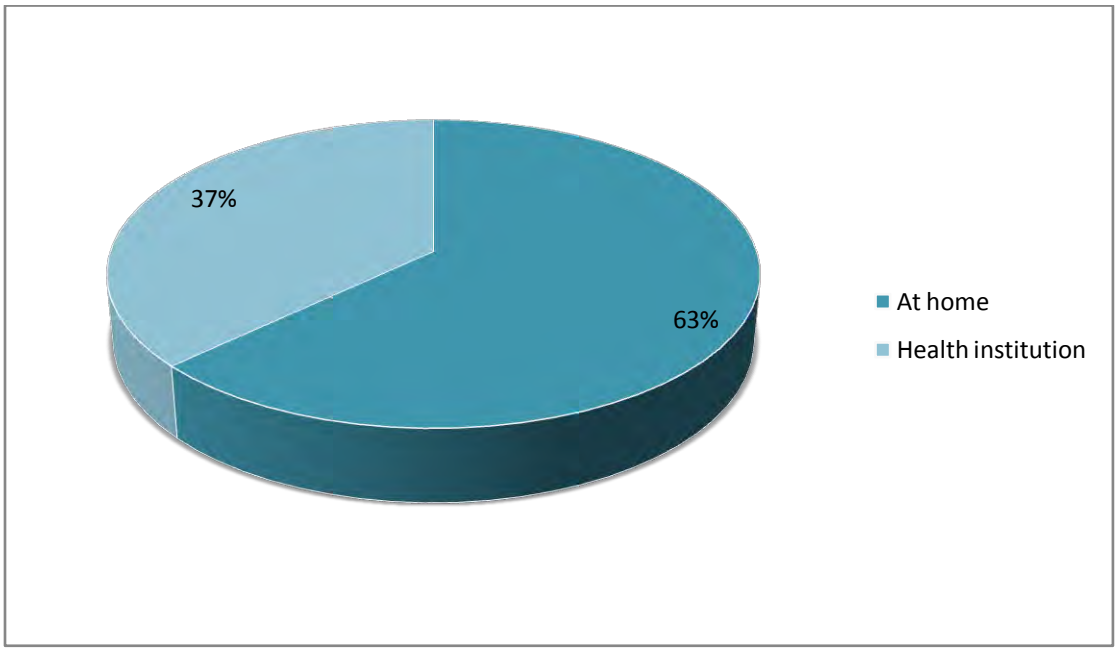

Figure 6 Place of delivery Lume woreda East Shoa zone, Oromia, May, 2014

Table 4 Distribution of Respondents by history of recent delivery Lume woreda, East shewa Zone, Oromia region May, 2014

Variable	Frequency	Percentage
Reason for recent birth at home(n=293)		
Easily labor	190	64.85
Transport problem	6	2.05
Health facility far	4	1.4
Poor services	38	12.97
Poor skill of health worker	6	2.05
I was sick	2	0.7
Sudden onset of labor	55	18.77
decision maker on choice of place of delivery		
My self	178	38.3
My husband	24	5.2
Both of us	260	55.9
Mother	3	0.6

Qualitative finding also shows that most participants delivered at home. One of the participants explained

"The reason why I gave birth at home was due to the presence of birth attendant in the village and also, the unpleasant approach of service providers in the health facility. For example from my last experience what I remember is, one day the health workers left the laboring mother on coach and went for tea break which made me to give birth at home". (28years old woman, Tede Kebele).

Furthermore, sudden onset, distance of health facility along with transport problem and reported:

"Labour was sudden onset, occurs at night, the location of health center at long distance, transport problem, the negligentness of health workers for their duties, labour is a simple and a natural process that doesn't lead to any health problem." (43 years old woman, Dildima Kebele).

One of the participants also gave her perception towards attitude and performance of health workers and explained:

"I remember what happened to a mother at a health facility where a health worker left a laboring mother on laboring bed and went for tea break. The mother gave birth with support from her family who brought her to the health facility. On the other hand, some health workers here lack skill to

assist the labouring mother since they can't decide whether the mother has labour sign or not. So, home delivery is better"(32 years old woman, Tede Kebele).

In stating her perception about place of delivery and its reasons, one of the key informants also shared:

"Because of fear of operation and lack of privacy at health facility I do not go to health institution for delivery "(40 years old woman, Tede Kebele).

Similarly, regarding preference of home delivery another participant also said:

"During labour at home my relatives and neighbors make coffee and other ceremony. But such ceremony is not available in health facility. During such a ceremony people pray to God for laboring mother to make the labour easy"(34 years old woman, Dildima Kebele).

Cultural practices and beliefs that influence mothers' decision on the place of delivery

The key informants were asked to explore cultural practices and beliefs that influence mother' decisions on the place of delivery and most of the participants have similar ideas on labour, explaining that it is a customary practice and natural process without a problem. For instance, in describing about cultural practices and beliefs influence on place of delivery, one of the key informants said

"Culturally I believe that blood of laboring mothers should be dropped at home and also burying placenta in the living compound or around is what I prefer"(43 years old woman, Dildima Kebele).

Another participant also described her beliefs about choice of place of delivery and shared as follows:

"Traditionally I believe that as far as labour is a natural process, Mary ties and unties a laboring mother and finally gives solution". Equivalent afan Oromo version is "Haadha ciniinsifattu Maaramiin hiitee hiikti waan ta'eef rakkoo hin qabu Jenna". (28years old woman, Tede Kebele).

5.5. Factors associated with utilization of institutional delivery Lume woreda, East shoa Zone, Oromia region May, 2014

Crude analysis of socio-demographic variables on binary logistic regression shows that residence, respondents education and husbands education, were all significantly associated with institutional delivery at $p < 0.05$. Mothers who reside in urban settings were 2.75 times more in delivering in health facilities compared to those mothers who reside in rural area COR=2.75, 95% CI=1.79-4.22.

Mothers who had completed primary education were more than nine and half times likely to utilize health facility for delivery than those who didn't attend formal education COR=9.89, 95% CI=6.02-16.25. Respondents who had completed secondary education and above were more than one hundred fourteen times likely to deliver at health facility than those who did not attend formal education COR=114.25, 95%CI=25-508.04. Similarly mothers whose husbands completed primary education were more than eleven times likely to give birth at health facility than those whose husbands had never attended formal education COR=11.00, 95% CI=6.00-20.16. Respondents whose husbands had completed secondary education and above were more than one hundred one times likely to deliver at health facility than those who did not attend formal education COR= 101.39, 95%CI=37.06-277.40

Table 5 Distribution of Respondents by history of recent delivery Lume woreda, East shewa Zone, Oromia region May, 2014

Variables	Institutional delivery		COR(95%CI)
	Yes (%)	No (%)	
residence			
urban	65(55.1%)	53(44.9%)	2.75(1.79-4.22)
rural	107(30.8%)	240(69.2%)	1
Educational status of women			
Secondary education and above	29(93.5%)	2(6.5%)	114.25(25.69-508.04)
Primary education	118(55.7%)	94(44.3%)	9.89(6.02-16.25)
No education	25(11.3%)	197(88.7%)	1
Educational status of husband			
Secondary education & above	51(89.5%)	6(10.5%)	101.39(37.06-277.40)
Primary education	107(48%)	116(52%)	11.00(6.00—20.16)
No education	14(7.7%)	167(92.3%)	1

Ante natal cares follow up, and numbers of births were associated with utilization of institutional delivery. Mothers who attended antenatal follow up were more than almost two times likely to give birth at health facility than those who did not attend COR= 1.92, 95%CI=1.11-3.31.

Regarding number of births, those mothers who had had two live births were more than almost ten times more likely to utilize health institution for child birth than those mothers who had four live births and above COR= 9.93, 95%CI=5.94-16.60, and similarly mothers who had three live births were more than six and half times more likely to deliver at health facility compared to those who had four live births and above COR=6.68, 95%CI=3.68-12.11

Table 6 Association of selected Obstetric factors with utilization of institutional delivery Lume woreda East shoa zone, Oromia May 2014 (n=465)

Variable	Institutional delivery		COR (95%CI)
	Yes (%	No (%	
Number of birth			
Two	105(58.7%)	74(41.3%)	9.93(5.94-16.60)
three	42(48.8%)	44(51.2%)	6.68(3.68-12.11)
Four and above	25(12.5%)	175(87.5%)	1
ANC care follow up			
Yes	152(39.4%)	234(60.6%)	1.92(1.11-3.31)
No	20(25.3%)	59(74.7%)	1

Maternal health education and respondents‘ awareness on complication of delivery also showed an association with delivery at health facility.

Mothers who had reported severe hemorrhage as one of delivery complications were more than two times likely to give birth at health institution than who did not report COR=2.12, 95% CI=1.05-4.27, whereas mothers who reported retained placenta lasting more than 30 minutes and loss of consciousness were more than almost two times likely to deliver at health facility COR=1.9, 95%CI=1.28-2.8 and COR=2.24, 95% CI=1.17-4.31 compared to those who did not report, respectively.

Similarly, mothers who had reported that every mother is susceptible to pregnancy and delivery complication including herself were more than two and half times likely to deliver at health facility than those who did not report COR=2.79, 95% CI=1.9-4.11. Primi and multi gravid mothers who reported that they are susceptible to pregnancy and delivery complications were more than two, more than two and half times likely to utilize institutional delivery than those who did not report COR=1.97, 95% CI= 1.28-3.3 and COR=2.8, 95% CI=1.14-6.95, respectively. But mothers who reported prolonged labor lasting more than twelve hours as labour complication did not show any significant association with institutional delivery COR=.79, 95% CI= .52-1.21.

Respondents who had had maternal health education were more than four times likely to utilize health facility for delivery than those who did not get health education (COR=4.13, 95%CI=1.2-14.00)

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Table 7 Association of selected Obstetric factors with utilization of institutional delivery Lume woreda East shoa zone, Oromia May 2014 (n=465)

Variable	Institutional delivery		COR (95%) CI
	Yes (%)	No (%)	
Mothers more susceptible for pregnancy and delivery complications			
Every mother including myself			
Yes	110(49.1%)	114(50.9%)	2.79(1.9-4.11)
No	62(25.7%)	179(74.3%)	1
Primi-mothers			
Yes	38(26.6%)	105(73.4%)	1.97(1.28-3.3)
no	134(41.6%)	188(58.4%)	1
Mothers with multiple pregnancy			
Yes	31(30.7%)	70(69.3%)	0.7(.44-1.12)
No	141(38.7%)	223(61.3%)	1
Mothers with other medical problems			
Yes	12(25.5%)	35(74.5%)	0.55(.28-1.1)
No	160(38.3%)	258(61.7%)	1
complications that can occur during delivery			
Severe hemorrhage			
Yes	161(38.6%)	256(61.4%)	2.12(1.05-4.27)
No	11(22.9%)	37(77.1%)	1
Retained placenta lasting more than 30 minutes			
Yes	115(43.2%)	151(56.8%)	1.9(1.28-2.8)
No	57(28.6%)	142(71.4%)	1
Prolonged labor lasting more than 12 hours			
Yes	120(35.5%)	218(64.5%)	0.79(.52-1.21)
No	52(40.9%)	75(59.1%)	1
Loss of consciousness			
Yes	22(55%)	18(45%)	2.24(1.17-4.31)
No	150(35.3%)	275(64.7%)	1
Health education on maternal health			
Yes	169(38.2%)	273(61.8%)	4.13(1.2-14.0)
No	3(23%)	20(87%)	1

5.6. Determinants of utilization of institutional delivery Lume woreda, East shoa Zone, Oromia region May, 2014

A multivariate analysis including all those variables which were found to be associated during bivariate analyses were tested to identify independent predictors of utilization of institutional delivery. According to the test of all variables; residence, respondent‘s education, husband‘s education; number of births (parity) and mothers who reported severe hemorrhage as delivery complications showed significant statistical association of institutional delivery. The detail summary is shown in table 8 below.

Mothers who reside in urban were more than three times likely to utilize health facility for delivery than those who live in rural area AOR=3.29, (95%CI=1.40-6.62).

Respondents who had completed primary education were more than seventeen times gave birth at health facility than those who had no education AOR=17.32, (95%CI=3.32-92.80) and also those mothers who had completed secondary education and above were more than six times likely to give birth at health institution than those who had no education AOR=6.40, (95% CI=3.37-12.16) With respect to husbands‘ education, those respondents whose husbands completed primary education were more than twenty five times more likely to use health facility for delivery than those who had no education AOR=25.91, (95%CI=7.89-85.08) and also mothers whose husbands had completed secondary education and above were more than four and half times likely to utilize health institution for delivery as compared to those with no education AOR=4.76, (95%CI=2.33-9.72). On the other hand those respondents who had had two live births were almost more than seven times likely to give birth at health institution when compared to those who had had four and above AOR=6.73, (95% CI=3.37-13.44). Similarly those mothers who had had three live births were more than six and half times utilized health facility for delivery than those mothers who had had four and above (AOR=6.50, 95%CI=2.88-14.69). Those mothers who had reported severe hemorrhage as complication of delivery were more than 2.96 times likely to deliver at health facility than those who did not report (AOR=2.96, 95% CI=1.47-5.90).

Table 8 Association of selected Obstetric factors with utilization of institutional delivery Lume woreda East shewa zone, Oromia May 2014 (n=465)

Variable	Institutional Delivery		COR (95% CI)	AOR(95%CI)
	Yes (%)	No (%)		
Residence				
urban	65(55.1%)	53(44.9%)	2.75(1.79-4.22)	3.29(1.36-6.62)**
rural	107(30.8%)	240(69.2%)	1	1
Educational status of women				
Secondary education and above	29(93.5%)	2(6.5%)	114.25(25.6-508.0)	6.40(3.4-12.16)**
Primary education	118(55.7%)	94(44.3%)	9.89(6.02-16.25)	17.32(3.3-92.8)
No education	25(11.3%)	197(88.7%)	1	1
Educational status of husband				
Secondary education and above	51(89.5%)	6(10.5%)	101.39(37.1-277.4)	4.76(2.33-9.72)**
Primary education	107(48%)	116(52%)	11.00(6.00-20.16)	25.91(7.9-85.1)
No education	14(7.7%)	167(92.3%)	1	1
Health education on maternal health				
Yes	169(38.2%)	273(61.8%)	4.13(1.2-14.0)	1.19(.20-7.23)
No	3(17%)	20(83%)	1	1
Number of birth				
Two	105(58.7%)	74(41.3%)	9.93(5.94-16.60)	6.73(3.37-13.4)**
three	42(48.8%)	44(51.2&)	6.68(3.68-12.11)	6.50(2.88-14.7)
Four and above	25(12.5%)	175(87.5%)	1	1
ANC follow up				
yes	152(39.4%)	234(60.6%)	1.92(1.11-3.31)	0.86(.35-2.08)
No	20(25.3%)	59(74.7%)	1	1
Mothers susceptible for pregnancy and delivery complications				
Every mother including myself				
Yes	110(49.1%)	114(50.9%)	2.79(1.9-4.11)	0.97(.30-3.07)
No	62(25.7%)	179(74.3%)		1
Primi-mothers				
Yes	38(26.6%)	105(73.4%)	1.97(1.28-3.3)	1.28 (.68-2.43)
No	134(41.6%)	188(58.4%)		1
complications that can occur during delivery				
Severe hemorrhage				
Yes	161(38.6%)	256(61.4%)	2.12(1.05-4.27)	2.96(1.47-5.90)**
No	11(22.9%)	37(77.1%)	1	1
Retained placenta lasting more than 30 minutes				
Yes	115(43.2%)	151(56.8%)	1.9(1.28-2.8)	1.27(.61-2.62)
No	57(28.6%)	142(71.4%)	1	1
Loss of consciousness				
Yes	22(55%)	18(45%)	2.24(1.17-4.31)	2.27(.57-9.10)
No	150(35.3%)	275(64.7%)		1

6. Discussion

This study has generated important evidences on factors that influence utilization of institutional delivery. Mothers‘ urban residence, education, number of birth (parity) mothers reported severe hemorrhage as delivery complications and husbands‘ education had showed significant association with utilization of institutional delivery. The study results showed that the prevalence of institutional delivery service utilization was 37% with (95% CI=32.9-41.04) in the woreda where the majority of mothers 63% were delivered at home. Institutional delivery of the present study is higher when compared to the findings of researches done in Metekel, Sekela district North west of Ethiopia, Munesa and Dodota districts which showed that the percentage of institutional delivery were12%, 12.1%, 12.3%, and 18.2%, respectively (6, 22, 34, 36). This might be due to the time gap where several measures were taken by government to improve institutional delivery. In this study, even if many of mothers attended ANC their linkage to institutional delivery is low. This is consistent with other study done in the country (37) . In this study utilization of institutional delivery was influenced by place of residence where urban dwellers women were more than three times likely to utilize health facility for delivery than women who live in rural areas which is consistent with most of studies conducted elsewhere in Ethiopia and abroad countries; Bahir dar, sekela district North West Ethiopia, Chilga, Arsi zone, Dodota, Nepal and Tanzania (3, 6, 20, 22-24, 29). The difference in choice of delivery place could be explained by that the difference in access, especially in terms of physical distance which is important for service utilization. (6, 22, 38-39)

In this study, education of mothers appeared to be the most important predictor in determining the utilization of institutional delivery care after controlling other variables. Mothers whose educational statuses were secondary and above were more than six times likely to utilize health facility for delivery than with no education This shows that educated women have chance of being employed and also have power to give decision on their own health. This study is also consistent with other studies conducted in Ethiopia and abroad, Bahir dar, Holeta, Woldia, Munesa, Bahir dar city, Northern and south central Ethiopia and Pakistan (23, 25-26, 32, 34, 40-41). Many previous studies conducted in developing countries have found education of mothers to be among the most determinants of skilled delivery care utilization. There are a number of explanations that speculate as to why education is a key determinant of skilled care demand. For example education is likely to enhance female autonomy so that mothers develop greater confidence and capabilities to make decisions regarding their own

health as well as their children. Moreover educated women are more likely to be aware of difficulties during pregnancy and as a result they are more likely to use maternal health care(6).

Husbands‘ educational level is also one of the significant factors for the mothers‘ utilization of institutional delivery. In this study respondent whose husbands completed secondary education and above were about five times more likely to give birth at health facility as compared to those women whose husbands‘ were with no education. This finding is also in line with study done in Munesa Arsi zone Oromia, and south Omo (34-35).

Unlike other studies done in(sekela district, third round of EDHS and abroad country in Nepal) this study did not show an influence of age on the utilization of institutional delivery which was explained in those studies that mothers with younger ages were more likely to utilize health facility than mothers with older age (20, 22, 38). An explanation for the difference between current study and those studies could be that because of the difference in study setting and difference in the time of study along with community mobilization through health promotion/education activity on maternal health might have narrowed the difference between ages of mothers on delivery service utilization.

In this study among obstetric histories, parity of the mothers showed significant association of utilization of institutional delivery. Those mothers who had had two live births were almost more than seven times likely to give birth at health facility as compared to those mothers who had had four and above. Similarly those mothers who had had three live births were more than six and half times likely to deliver at health institution when compared to those mothers who had had four and above. This study is consistent with other studies done in the country and abroad (3, 20, 24, 26, 37) which revealed that women with five and more children were less likely to utilize the service than women who had less number of children.

Awareness of mothers about pregnancy and delivery complications was found to be significantly associated with utilization of institutional delivery. In this study those mothers who reported severe hemorrhage as delivery complications were almost more than three times likely to utilize health institution for delivery than who did not. This finding was similar to study done in Arsi zone, Sekela district, and North West of Ethiopia, Bahir dar (3, 22-23). It was also supported by qualitative finding. Most of the key informant mothers report showed that they have awareness about risk or danger signs of home delivery. Participants report have pointed out that prolonged labour, excessive bleeding and retention of placenta were some of the danger signs perceived to occur. This implies that

irrespective of the place of their previous delivery point, most of the mothers understood the problem a laboring mother could face when they give birth out of the health institution. This is consistent with other studies done in the country and abroad (19, 25).

In this study majority of the mothers preferred home delivery. The main reasons mentioned were: easily/smooth labour (64.85%), sudden onset of labour (18.77%) and poor health facility services were (13%). This is consistent with studies conducted in Metekel zone, Arsi zone, woldia, Nepal and Kenya (3, 25, 27-28, 36). This finding was also supported with the qualitative finding. Most of the participants said that almost all of them gave birth at home citing different reasons. Some of the mentioned reasons were: the weak friendly approach of health workers, the distance of health facility, sudden onset, transport problem, fear of privacy at health facility, perceived lack of skill of health workers, and need for relatives and neighbors ceremony during labour at home have contributed for home delivery. This is similar to other studies conducted in the country (3, 6, 30, 32)

Another qualitative finding for home delivery was the influence of cultural practices and beliefs.

The participants report during exploring cultural practices and beliefs that influence mothers' decision on the place of delivery showed that most of them have similar ideas on labour, stating, home delivery is a customary and natural process without a problem where ~~–S~~t. Mary ties and unties a laboring mother and finally gives solution". This is consistent with other studies done in the country(42-43).

In summary, the above mentioned points indicate that time of day when labour starts, short labour, long distance of health facility, transport problem, unfriendly approach of health workers and cultural beliefs were major determinant barriers for mothers' utilization of institutional delivery.

7. Strengths and limitation of this study

Strength

- Since data collectors are from the same community of the respondents and both of them speak the same local language there was no information bias during data collection.
- To generate rich information as much as possible this study employed qualitative and quantitative methods of data collection.
- High response rate.
- Non health worker data collectors were used to avoid the possibility of introducing desirable answers.

Limitation

- Since the respondents were asked for events happened within the last five years before data collection, there could be a recall bias; however the most recent births and local events were considered to remind them.

8. Conclusion

In conclusion, this study revealed that the utilization of institutional delivery service was low in the study population. The most important factors influencing utilization of institutional delivery were demographic and obstetric factors in nature. In the present study, the results from both bivariate and multivariate analysis indicated that maternal and husbands education was significant predictor variable for choice of delivery place. This shows that there is a huge variation on utilization of institutional delivery among the educated and women with no education.

Utilization of institutional delivery was influenced by place of residence. Similarly, number of births (parity) was also found to be determinant factor for delivery in health facility. Those mothers with less number of children were more likely to give birth at health facility as compared to those with more children. This study also showed that those mothers who had awareness on pregnancy and delivery complications and reported they are susceptible to these complications were found to be significantly associated with utilization of institutional delivery than those mothers with no information. In the present study the majority of mothers attended ANC; however their linkage with utilization of institutional delivery is, still low.

This study shows that influence from husband decision makers, mothers‘ preference for home delivery, perception of mothers towards the weak friendly approach of health workers were the main barriers to institutional delivery.

9. Recommendation

Based on the findings of the study, the following points were identified as recommendations:

To policy Makers

- As women‘s and their husband‘s education is an important predictor for the utilization of institutional delivery, there should be increasing of education opportunity for both groups, particularly for women. Therefore, policy makers and concerned stakeholders, government and non government organization should give emphasis to education and empowering of women on choice of delivery point to improve utilization of institutional delivery.

To service providers

- Health workers should work hard to strengthen and promote awareness about the value of institutional delivery as compared to home delivery to the mothers, their family, and community to improve institutional delivery.

To local health sector officials

- Zonal health department and Woreda health offices should jointly work to strengthen in service training on the issues of reproductive health and to improve client-health staff friendly approach to benefit service deliveries where clients develop confidence to use the service.

Research

- Further qualitative study at community level should be conducted to explore maternal perception and attitude towards utilization of institutional delivery.

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Annex1: The theme, categories and codes as identified from the qualitative data

Theme: Reasons for home delivery

Categories	Code
Husband influence	• Decision • Expense

	• Income
Service Provider related problems	• Unfriendly service provision • Poor performance of health workers • Lack of attention
Perceived Risk	• Danger sign • Frustration • Complication • Severity
Cultural Practices and Beliefs	• Home ceremony with relatives • Natural process • Privacy • Preference • Fear • Shame • Conceal

Annex2: Information sheet of English version

Hello, my name is……and I am going to conduct an interview with you on behalf of Mr. Kemal Berarti a post graduate student at Addis Ababa University, School of Public Health.

He is now conducting a research entitled Low utilization of Institutional delivery among women of child bearing age in Lume woreda, East shoa Zone. This district is selected area for this study. I would like to ask you information on mother's choice of place of delivery. The purpose of this interview is to conduct scientific research that may help us to identify problems of the program and forward some recommendation to concerned bodies that will help to improve the existing efforts. I have received a permission from the Zone and District to conduct this study. The interview just takes some 30-45 minutes. This information enables the government and other stakeholders to develop programs to improve maternal health services. Be assured that your name will not be recorded and any other identifying information will be kept confidential and your information is used only for the purpose of this study. Your participation is voluntary and you have the right to stop the interview at any time. Your decision about not to participate is respected. If you have any question on what we have talked so far you welcome. If you have any question at any time you can contact the investigator and advisor through the following address:

Kemal Berarti

East Shoa Zone health department

Mobile 0913221432

Advisor's name and address: Dr Mirgissa Kaba, Addis Ababa University, School of Public Health, Addis Ababa

Mobile 0911213631

Annex3: Consent form

I, the undersigned participant, have been informed about the study that low utilization of institutional delivery among women of child bearing age. I have been requested to reply answers for the questions asked by the data collectors, after I have been well briefed that there are no direct benefits. I have the

right to withdraw from the study and this will not have any consequence. I have been given an adequate time to think over before deciding to give my consent to participate in this study. And overall I understand that my personnel information will be kept confidential and will be used only for this study. My agreement to participate in this study is with the assumption that, the information that I provide will help to improve maternal health service.

Signature of the participant: _____Date_____

Signature of the data collector: _____Date_____

Checked by supervisor:_____ signature _____Date_____

Address of Investigator

Mobile Phone: 0913221432

Identification

No	Questions	Response	code

001	Questionnaire number	☐ ☐ ☐ ☐	
002	Identification of interviewer	☐ ☐	
003	House number /peasant association	Woreda_____. Kebele_____. Peasant Ass_____. House number_____.	
004	Date of interview(Ethiopian calendar)	/_____/____/ _____/ _____/	

Questionnaire

Section one: Demographic characteristics

101	What is your age?	_____ years	
102	What is your marital status	1. never married ☐ 2. married ☐ 3. living together ☐ 4.divorced/separated ☐ 5.widowed ☐	
103	residence	1. Urban ☐ 2. rural ☐	
104	What is your religion	1. Orthodox ☐ 2. Catholic ☐ 3. Protestant ☐ 4. Muslim ☐ 5. Other specify ☐	
105	What is your ethnicity	1. Amhara ☐ 2. Oromo ☐ 3. Tigrie ☐ 4. Gurage ☐ 5. other ☐	
106	Respondent's education	1. no education ☐ 2. primary ☐ 3. Secondary ☐ 4. More than secondary ☐	

107	Occupation of respondent	1. farmer ☐ 2. student ☐ 3. House wife ☐ 4. Govt's employer ☐ 5.daily laborer ☐ 6.Merchant ☐ 7. commercial sex worker ☐ 8. jobless ☐ 9. other ☐		
108	What is the main occupation of husband?	1. farmer ☐ 2. student ☐ 3. Govt's employer ☐ 4. daily laborer ☐ 5. merchant ☐ 6. jobless ☐ 7. other ☐		
109	What is your husband's education?	1. No education ☐ 2. Primary ☐ 3. Secondary education ☐ 4. More than secondary ☐		
110	Have you ever had health education on maternal health?	1. Yes ☐ 2. no ☐		

111	If yes for question no (111) by whom?	1. HEWS ☐ 2. CHWS ☐ 3. TBAS ☐ 4. CBRHAS ☐ 5. HWS ☐ 6. Radio ☐ 7. Television ☐ 8. Other specify ☐		
112	Do you have any health facility in your kebele?	1.yes ☐ 2.no ☐		
113	How far is the nearest health facility from your kebele?	_____minutes.		

Section Two: Obstetric factors

201	How many births have you ever had? (parity)	1. two ☐ 2. three ☐ 3. four ☐ 4. five ☐ 5. six &above ☐		
202	Number of live births	1. One ☐ 2. Two ☐ 3. Three ☐ 4. Four ☐ 5. Five & above ☐		
203	Did you attend ANC for your recent	1. Yes ☐		

	delivery?	2. no ☐	
204	If yes at what gestational age you start?	At_____gestational age	
205	If yes to question no (203) how many times?	_____.times.	
206	If yes to question no(203)the reasons for visiting	1. I was sick ☐ 2. Health facility near ☐ 3. Good service ☐ 4. Husband encouraged ☐ 5. To know my health status ☐ 6. To know my fetus status ☐ 7. Other specify_____.	
207	If ANC is yes, during your visit did you receive any advice where to deliver?	1. Yes ☐ 2. 2 no ☐	
208	During ANC follow up did you get any information about delivery complications? By whom?	1. Yes ☐ 2. no ☐	
209	Types of information provided	1. Severe vaginal bleeding ☐ 2. Severe head ache ☐ 3. Marked fast weight gain ☐ 4. Fetal movement cessation ☐ 5. Prolonged labor ☐ 6. Retained placenta ☐ 7. Others specify_____.	
210	If there is no ANC follow up, why?	1. No health problem ☐ 2. Work load ☐	

		3. Health facility far 4. Husband refused ☐ 5. Afraid fee ☐ 6. Poor handling of health worker ☐ 7. Feel shame ☐ 8. Other specify_____.	

Section Three: History of recent delivery

301	Where did you give birth for the recent baby?	1. At home ☐ 2. Health post ☐ 3. Health center ☐ 4. Hospital ☐	
302	If at home who assisted you?	1. Mother ☐ 2. Mother- in law ☐ 3. TTBA ☐ 4. Neighbor ☐ 5. HEW ☐ 6. Other specify_____.	
303	If at health facility who assisted you?	1. HEW ☐ 2. Nurse ☐ 3. Midwife ☐ 4. Health officer ☐ 5. Doctor ☐ 6. Don't remember ☐	

304	If you gave birth for the recent baby at home why?	1. Easily lab our ☐ 2. Transport problem ☐ 3. Health facility far ☐ 4. Husband refused ☐ 5. Afraid user fee ☐ 6. Poor services ☐ 7. Feel shame ☐ 8. St. Mary help me ☐ 9. Poor skill of health worker ☐ 10. Don't know ☐ 11. I was sick ☐ 12. Other specify _____.	
305	If you gave birth at Health facility for the recent baby why?	1. I was sick ☐ 2. No fee ☐ 3. Health facility near ☐ 4. Good service ☐ 5. Family allowed ☐ 6. Save mother life ☐ 7. Received h/education ☐ 8. Others specify___.	
306	Who decide where you give birth?	1. Myself ☐ 2. My husband ☐ 3. Both of us ☐ 4. Mother ☐ 5. Mother- in- law ☐ 6. TTBAS ☐ 7. Neighbor ☐ 8. HW ☐ 9. Father ☐ 10. Other specify_____.	

Section Four: Questions related to knowledge

401	Do you think there is a difference in giving birth at home and health facility?	1. Yes ☐ 2. No ☐ 3. Don't know ☐	
402	If you think health facility is better why?	1. Clean ☐ 2. Save mother life ☐ 3. No retained placenta ☐ 4. No bleeding ☐ 5. Save child life ☐ 6. Shorter labor ☐ 7. Other specify____.	
403	If you think home is better (question 401) why?	1. No need of transport ☐ 2. No cost ☐ 3. No bleeding ☐ 4. There is privacy ☐ 5. Other specify_____.	
404	Who do you think are susceptible for pregnancy and delivery complications?	1. Every mother including myself ☐ 2. Primi-mothers ☐ 3. Multi gravid mothers ☐ 4. Mothers with multiple pregnancy ☐ 5. Mothers with other medical problem ☐	
405	What are the complications that can occur during delivery?	1. Severe hemorrhage ☐ 2. Retained placenta lasting more than 30 minutes. ☐ 3. Prolonged lab our lasting more than 12 hours ☐ 4. Loss of consciousness ☐	

406	Where do you prefer to give birth for your next delivery?	1. Home ☐ 2. Health facility ☐	
407	Whom do you prefer to assist you next delivery?	1. Mother ☐ 2. Mother- in-law ☐ 3. TTBAS ☐ 4. Neighbor ☐ 5. HWS ☐ 6. Other specify_____.	
408	Where is your husband's preference place for your next delivery?	1. Home ☐ 2. Health facility ☐	

The End!

Thank you!

Interviewer **Supervisor**

Name_____ Name _____

Signature_____ Signature_____

Date ___/____/_____ /____ / Date___ /____ /____ /____ /

Maalummaa

Lakk	Gaafilee	Deebiiwwan	Koodii
001	Lakkoofsa waraqaa gaafii	☐ ☐ ☐ ☐	
002	Lakkoofsa eenyumaa gaafataa	☐ ☐	
003	Lakkoofsa manaa/ganda qonnaan bulaa	Aanaa_____. Ganda_____. Lakk.manaa_____. Maqaa ganda baadiyaa_____.	
004	Guyyaa gaafatame akka lakkoofsa habashaatti	/____ /____ /___ /____/	

Gaafilee

Seensa

Kutaa tokko:Haala hawaassumaa fi Dimograafii

101	Umriin keessan meeqa?	_____ waggaa dhaan.	
102	Haala heeruma keessanii ibsaa	1. Hin heeruminne ☐ 2. Heerumeera ☐ 3. Waliin jiraadha ☐ 4. Hiikeera ☐ 5. Abbaan manaa kan irraa du'e (du'eera). ☐	

103	Bakki jireenya keessanii eessa?	1. Magaalaa ☐ 2. Baadiyaa ☐	
104	Amantiin keessan maal?	1. Orthodoxi ☐ 2. Kaatoolik ☐ 3. Proteestaant ☐ 4. Musliima ☐ 5. Kan biroo ☐	
105	Sabinni keessan maal?	1. Amaaraa ☐ 2. Oromoo ☐ 3. Tigree ☐ 4. Guraagee ☐ 5. Kan biroo ☐	
106	Sadarkaa barumsaa	1. Hin baranne ☐ 2. Sadarkaa tokkoffaa ☐ 3. Sadarkaa lammaffaa ☐ 4. Sadarkaa lammaffaa oli ☐	
107	Akaakuu hojii keessanii	1. Qote bulaa ☐ 2. Barataa ☐ 3. Haadha manaa ☐ 4. Hojjataa mootummaa ☐ 5. Hojjataa guyyaa ☐ 6. Daldalaa ☐ 7. Dubartoota mana bunaa ☐ 8. Hojii kan hin qabinne ☐ 9. Kan biroo ☐	
108	Hojiin abbaa warraa keessanii maal?	1. Qote bulaa ☐ 2. Barataa ☐ 3. Hojjataa mootummaa ☐ 4. Hojjataa guyyaa ☐ 5. Daldalaa ☐ 6. Hojii kan hin qabinne ☐	

		7. Kan biroo ☐	
109	Sadarkaa barumsaa abbaa warraa keessanii	1. Barumsa hin qabu ☐ 2. Sadarkaa tokkoffaa ☐ 3. Sadarkaa lammaffaa ☐ 4. Sadarkaa lammaffaa oli ☐	
110	Tajaajila fayyaa maatii irratti hubannoo qabduu?	1. Eyyen ☐ 2. Hin qabu ☐	
111	Deebiin keessan gaafii 111fi eyyen yoo ta'e hubannoo eenyu irraa argatan?	1. Hojjatoota ekisteenshinii fayyaa irraa ☐ 2. Hojjatoota hawaasaa ☐ 3. Deessiftoota aadaa ☐ 4. Hojjatoota fedhii hawaasaa sirnya hormaataa ☐ 5. Raadiyoo ☐ 6. Televiznii ☐ 7. Kan biroo ☐	
112	Manni yaalaa ganda keessan keessa Jiraa?	1. Eyyen ☐ 2. Hin jiru ☐	
113	Manni yaalaa ganda keessan irraa hangam deemsisa?	1. Daqiiqaa_____deemsisa.	

Kutaa lama : sirna ulfaaf dahumsaa ilaalchisee

201	Hanga ammaa meeqa deete?	1. Tokko ☐ 2. Lama ☐ 3. Sadi ☐ 4. Afurii hanga shanii ☐ 5. Jahaa fi jahaa oli ☐	
202	Kan lubbuun dhalatan	1. Tokko ☐ 2. Lama ☐ 3. Sadi hanga shanii ☐ 4. Jahaa fi isaa oli ☐	
203	Ulfa ammaatiif tajaajila dahumsaa duraa argatee jirtaa?	1. Eyyen ☐ 2. Hin arganne ☐	
204	Yoo deebiin eyyen ta‘e ji‘a meeqarratti tajaajila eegalte?	Ji‘a _____.irratti.	
205	Yeroo meeqaaf tajaajila argate?	Yeroo_____deddeebisaan Tajajila argate.	
206	Sababinni tajaajilaaf isin geese maal?	1. Dhukkubsadhee ture ☐ 2. Tajaajilli gaarii waan ta‘eef ☐ 3. Deeggarsa abbaa warraatiin ☐ 4. Haala fayyaa koo beekuuf ☐ 5. Haala fayyaa daa‘imaa beekuuf ☐ 6. Sababa birootiif. ☐	
207	Yeroo tajaajila dahumsaafi deddeebitan eessatti dahuu akka qabdan gorsa argatanii jirtu?	1. Eyyen ☐ 2. Hin arganne ☐	
208	Yeroo tajaajilaaf deddeebitan rakkoo yeroo dahumsaa dhufu danda‘u irratti hubannoo argatanniirtu?	1. Eyyen ☐ 2. Hin arganne ☐	

209	Hubannoon isiniif kenname maal irratti?	1. Dhiiga qaama irraa gar malee dhangala‘u ☐ 2. Dhukkubii mataa cimaa ☐ 3. Ulfina qamaa gar malee dabale ☐ 4. Sochiin daa‘imaa garaa keessaa xiqaaachuu ☐ 5. Ciniinsuun turu ☐ 6. Hobbaatii turu(hafu) ☐ 7. Kan biroo ☐	
210	Tajaajila dahumsa duraa yoo hin argatin maaliif?	1. Rakkoon waan hin jireef ☐ 2. Hojiin ni baay‘ata. ☐ 3. Manni yaalaa fagoodha. ☐ 4. Abbaan warraa waan dideef ☐ 5. Kafaltii sodaadhaaf ☐ 6. Tajaajilli hojjatoota fayaa quubsaa miti ☐ 7. Waan sodaadhuuf /qaanii ☐	

Kutaa sadi: seenaa dahumsa yeroo dhiyoo

301	Dahumsa asi dhiyoo eessatti deete?	1. Manatti ☐ 2. Keellaa fayyaatti ☐ 3. Buufata fayyaatti ☐ 4. Hoospitaalatti ☐	

302	Manatti deete yoo ta‘e eenyutuu gargaarsa siif taasise?	1. Haadha koo ☐ 2. Sodaatii ☐ 3. Deessiftoota aadaa leenji‘an ☐ 4. Olla ☐ 5. Hojjatoota ekisteenshinii fayyaa ☐ 6. Kan biroo yoo jiraate ibsi_____.	
303	Mana yaalaatti yoo ta‘e eenyutuu si deessise?	1. Hojjatoota ekisteenshinii fayyaa ☐ 2. Narsi ☐ 3. Deessiftu fayyaa ☐ 4. Qondaala fayyaa ☐ 5. Doktara ☐ 6. Hin yaadadhu ☐	

304	Manatti deete yoo ta‘e maaliif	1. Ciniinsuun Hin cimu ☐ 2. Rakkoo geejjibaa ☐ 3. Manni yaalaa fagoodha. ☐ 4. Abbaan warraa diduun ☐ 5. Soda kafaltitiif ☐ 6. Tajaajjilli quubsaa miti ☐ 7. Sodaachuun /qaana‘uun/ ☐ 8. Hojimaanni ogeessaa nama hin gammachiisu ☐ 9. Hin beeku ☐ 10. Na dhukkubee ture ☐ 11. Kan biro yoo jiraate ibsi____.	
305	Mana yaalaatti deete yoo ta‘e maaliif?	1. Waan na dhukkubeef ☐ 2. Kafaltii hin qabu ☐ 3. Manni yaalaa dhiyoo dha ☐ 4. Tajaajjilli gaarii dha ☐ 5. Maatiin waan hayyameef ☐ 6. Lubbu koo baraaruuf ☐ 7. Barumsa waan argadheef ☐ 8. Kan biroo yoo jiraate ibsi_____.	
306	Eessatti dahuu akka qabdu eenyutuu murtteessa?	1. Ofii kootii ☐ 2. Abbaa warraa kiyaa ☐ 3. Nu lamaanuu ☐ 4. Haadha kooti ☐ 5. Sodaatii too ☐ 6. Deessiftuu aadaa kan leenjite ☐ 7. Ollaa ☐ 8. Hojjatoota fayyaa ☐ 9. Abbaa kooti ☐	

		10. Kan biro yoo jiraate ibsi___.	

Kutaa Afur: Gaafilee beekkumsaa/ Hubannoo

401.	Manatti yookiin mana yaalaatti dahuun garaagarummaa qaba jetee yaadaa?	1. Eeyyan ☐ 2. Lakki ☐ 3. Hin beeku ☐	
402	Mana yaalaa woyya kan jettu yoo ta'e maaliif?	1. Qulqulluudha ☐ 2. Lubbu haadhaa baraaruurratti ☐ 3. Hobbaatiin hin turu ☐ 4. Dhiginni gar malee hin dhangala'u ☐ 5. Lubbu daa'imaa baraarurratti ☐ 6. Ciniinsuun ni gabaabbata ☐ 7. Kan biroo yoo jiraate ibsi_____.	
403	Mana woyya kan jettu yoo ta'e maaliif(gaafii 401)	1. Geejjiba hin gaafatu ☐ 2. Kafaltii hin qabu ☐ 3. Dhiginni gar malee hin dhangala'u ☐ 4. Nama hin saaxilu (privacy) ☐ 5. Kan biro yoo jiraate ibsi_____.	
404	Haadholee kam fa'atuu rakkoo yeroo ulfaa yookiin dahumsaatiif saaxilamu jette yaada?	1. Ana dabalatee haadholee hunda ☐ 2. Haadha yeroo jalqabaatiff deetu ☐ 3. Haadha yeroo heddu deddeebisaan ulfoofte ☐ 4. Haadha ulfa tokkoo ol garaa qabdu ☐ 5. Haadha rakkoo fayyaa biroo qabdu ☐	
405	Rakkooleen yeroo dahumsaa gahuu danda'an maal fa'a?	1. Garmalee dhiiga dhangala'u ☐ 2. Hobbaatii daqiiqaa 30 caalaa irra ture ☐ 3. Ciniinsuu saa'aa 12 ol irra ture ☐ 4. Ofi wolaaluu ☐	

406	Yeroo itti aanu eessatti dahuuf karoorfate?	1. Manatti ☐ 2. Mana yaalaatti ☐	
407	Yeroo dahumsa gara fuuladuraatti eenyu akka si deessisu barbaada?	1. Haadha ☐ 2. Sodaatii ☐ 3. Deessiftu aadaa leenjite ☐ 4. Olla ☐ 5. Hojjataa fayyaa ☐ 6. Kan biroo yoo jiraate ibsi____	
408	Abbaan warraa kee gara fuuladuraatti eessatti akka deetu barbaada?	1. Manatti ☐ 2. Mana yaalaatti ☐	

Isa dhumaati.

Galatoomaa!

Kan gaafii dhiyeesse

Maqaa_____.

Mallattoo_____.

Guyyaaa___/___ /___ /___ /.

To‘ataa

Maqaa_____.

Mallattoo_____.

Guyyaa___ /___ /___ /___ /

Annex 4. In- depth interview guide for key informant individual.

After reaching informed consent with a key informant individual, the interview will be held using the following guide.

Introduction:

Good morning! Well come to our session!

My name is_____. And I work _____I came from_____.

I would like to thank you for your timely availing yourself. We are here today to discuss on maternal utilization of institutional delivery services, with the hope that it will be an input for the improvement of the service. All your ideas/ comments are respected whether positive or negative comment. Feel free, all your comments are confidential and will be used for this research purpose only. Your name will not be recorded to ensure confidentiality. Are you willing to continue our discussion?

If yes, thank you for your willingness.

Annex 4. In- depth interview guide for key informant individual mother/service user

After reaching informed consent with a key informant individual, the interview will be held using the following guide.

Introduction:

Good morning! Well come to our session!

My name is_____. And I work _____I came from_____.

I would like to thank you for your timely availing yourself. We are here today to discuss on maternal utilization of institutional delivery services, with the hope that it will be an input for the improvement of the service. All your ideas/ comments are respected whether positive or negative comment. Feel free, all your comments are confidential and will be used for this research purpose only. Your name will not be recorded to ensure confidentiality. Are you willing to continue our discussion?

If yes, thank you for your willingness.

Interviewer topic guide for mothers / service users/.

1. Did you have any history of difficult lab our (obstructed lab our)?
2. If yes what problems did you face? Bleeding retained placenta, prolonged lab our or other…….
3. Where did you deliver?
4. Why do you prefer delivering outside of Health Facility?
5. Do you discuss with your partner where to deliver?
6. Do you have to seek your husband‘s approval before deciding to deliver at health facility?
7. Could you please tell me some danger signs during delivery?
8. Do you think giving birth at home has risks?
9. If yes to question number 8 what risks do you know?
10. Do you know most complications of lab our are preventable?
11. Have you ever given birth at Health facility? If yes how did you receive the services? Free of charge, on payment basis or you do not remember.
12. Who decides your health service utilization?

Qajeelfama Gaafilee Afaan Oromootiin nama dhuunfaa Tajaajila argatuuf dhiyaatu.

Akkam bultan? Beellama keenya kabajuudhan yeroon iddoo walbeellaminnetti argamuu keessaniif galatoomaa.

Ani maqaan koo_____. Kan hojjadhus _____.bakki jireenya kiyaa_____.

Hardha kan walgeenyeef waa'ee tajaajila dahumsaa dubartootaa irratti marii gaggeessina. Mariin isin wajjiin taasifnu bu'aaf gumaachi inni fooyya'iinsa tajaajila dahumsaa haadholeef akkasumas hawaasaaf qabu gudaa dha.akka yaadaatitti yaadinni dogongora jennu hin jiru.Yaadinni keessan iccitiidhan qabama.

Kanaafu akka mari'anu nu hayyamtan tanaan galatoomaa. Marii keenya itti fufina.

Qabxilee Gaafii /marii/

1. Ciniinsuun gar malee cimaa ta'e yookiin danqame si qunnamee beekaa?
2. Deebiin kee eyyen yoo ta'e rakkoolee maal maal fa'atuu si qunname? Dhiiga gar malee dhangala'u?, hobbaatiin turuu?, ciniinsuun turuu?yookiin kan biroo?
3. Yeroo dabre eessatti deete?
4. Dhaabbilee fayaatiin alatti dahuu maaf filatte?
5. Abbaa warraa yookiin hiriyyaa kee wajjiin eessatti dahuu akka qabdu mari'attu?
6. Dhaabbilee fayyaa keessatti dahuuf murtteessuun duratti abbaan warraa kan kee mirkaneessuu qabaa?
7. Mallattoolee cicimoo yeroo dahumsaa nama muudatu danda'an natti himuu dandeetaa?
8. Manatti dahuun rakkoon jiraachuu danda'a jettee yaadaa?
9. Deebiin kee eyyen yoo ta'e, rakkoolee maal maal fa'a beekta?
10. Rakkooleen cicimoon yeroo dahumsaa akka ittifamuu danda'an beektaa?
11. Dhaabbilee fayyaa keessatti deetee beektaa?deebiin kee eyyen yoo ta'e tajaajila akkamitti argate? Kafaltii malee, kafaltiin, hin yaadadhu.
12. Tajaajila fayyaa argachuu yoo barbaadde eenyutuu murtteessa?

ASSURANCE OF PRINCIPAL INVESTIGATOR

The undersigned agrees to accept responsibility for the scientific ethical and technical

Conduct of the research project and for provision of required progress reports

As

Per terms and conditions of the Research Publication Office in effect at the time of Grant is forwarded as the result of this application.

Name of the student Kemal Berarti.

Date_____. Signature _____.

Approval of the primary Advisor

Name of the primary advisor_Dr. Mirgissa Kaba.

Date_____. Signature_____.