ADDIS ABABA UNIVERSITY

COLLEGE OF HEALTH SCIENCES

SCHOOL OF ALLIED HEALTH SCIENCES

DEPARTMENT OF NURSING AND MIDWIFERY

BARRIERS TO INSTITUTIONAL DELIVERY AMONG PREGNANT WOMEN ATTENDING ANTENATAL CARE IN ROBE HOSPITAL AND BAHA BIFTU HEALTH CENTER, BALE ZONE,OROMIA REGION, SOUTH EAST ETHIOPIA

BY: - MOHAMMEDAWEL ABDUKU

A THESIS SUBMITTED TO THE SCHOOL OF GRADUATE STUDIES ADDIS ABABA UNIVERSITY IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF SCIENCE IN REPRODUCTIVE AND MATERNAL HEALTH NURSING.

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List of Abbreviations

ANC: Antenatal Care

DHS: Demographic Health Survey
EMNOC: Emergency Neonatal and Obstetric Care

ETB: Ethiopian birr

FMOH: Federal Ministry of Health

JHPIEGO: Johns Hopkins Program for International Education in Gynecology and Obstetrics

FP: Family Planning

HC: Health Center

HF: Health Facility

HWs: Health Workers

HHRI: Health and Health Related Indicator

HES: Health Extension Service

HEP: Health Extension Program

HP: Health Post

HSDP: Health Sector Development Program

MCH: Maternal and Child Health

MDG: Millennium Development Goal.

MMR: Maternal Mortality Rate

MWU: Mada Walabu University.

NMR: Neonatal Mortality Rate

OD: Odd Ratio

PHCU: Primary Health Care Units

PI: Principal Investigator

PNC: Post Natal Care
SSA: Sub Saharan African
UN: United Nations
UNDP: United Nations Development Program

Abstract

Background: Institutional delivery, a childbirth conducted by skilled attendant in health facility built, equipped and managed to provide safe delivery services. Concern for good pregnancy and delivery outcome make women the largest segment of population seeking care.

However many efforts have been undertaking to improve utilization of delivery services in primary health services unit of Ethiopia, still utilization is low due to huge diversity of determinants.

Objective:-The aim of this study was to assess Barriers to Institutional Delivery among pregnant mothers attaining Antenatal Care in Robe Hospital and Baha biftu Health Center, Bale zone, Oromia region.

Method: A quantitative cross-sectional institution based study using structured interview questionnaires was conducted on 195 pregnant women attending Robe Hospital and Baha biftu health centers from April 7 to May 1. Systematic random sampling technique was used to get subjects for interview.

Results: - The magnitude of health facility delivery was 41(42.3%) and home delivery was about 56 (57.7%). The main reason mentioned for home delivery of their last pregnancy was not to be attended by male midwife, which were 36(57.1%). Multiple logistic regressions were identified: numbers of gravid, arrangement for place of birth and health education during each ANC visit as significantly associated with place of delivery of last pregnancy.

Conclusion: This study found that High magnitudes of home delivery among ANC attendants and number of gravid, arrangement on place of birth, health education during ANC visit and plan for place of delivery were significantly associated with health institutional delivery.

Recommendation: The Bale zone and Robe town health office should still work on increasing health institution delivery through female midwife.

1. Introduction

1.1Background

Maternal mortality (MM) remains a major challenge to health systems worldwide. According to assessment of trends in MM for 181 countries from 1980–2008, it was estimated to be 342,900 maternal deaths worldwide in 2008 decreasing from 526,300 in 1980. More than 50% of all maternal deaths were only from six countries in 2008 [India, Nigeria, Pakistan, Afghanistan, Ethiopia, and the Democratic Republic of Congo] (1). Maternal deaths have both direct and indirect causes. About 80% of maternal deaths are due to direct causes related to pregnancy and childbirth including haemorrhage (24%), infection (15%), unsafe abortion (13%), prolonged labour (12%) and eclampsia (12%); whereas primary causes of maternal mortality in Africa are haemorrhage (34%), other direct causes (17%), infection (10%), hypertensive disorders (9%) and obstructed labour (4%), abortion (4%) and anaemia (4%) (1, 2).

Major causes of maternal deaths in Ethiopia are similar to most developing countries [3], as Ethiopian Demographic Health Survey (EDHS) 2011 has shown, the maternal mortality rate (MMR) was 676 per 100,000 live births for the seven year period preceding the survey which is not significantly different from EDHS 2005 report [673 per 100,000 live births] (4). At the health facility level post partum hemorrhage (PPH) is responsible for 11% of all maternal deaths due to direct obstetric complications. This proportion of deaths due to PPH that occurred in facilities is most likely due to the fact that over 90% of births take place at home, and women with PPH may not be arriving at a health facility in time (5).

One of the objectives of the United Nations Millennium Development Goals (MDGs) was to reduce (MMR) by an average of 5.5% every year over the period 1990–2015. At the global level, MMR decreased by less than 1% per year between 1990 and 2005 far below 5.5% to reach the target of MDGs 5 and of the 8 MDGs; countries have made the least progress toward MDG 5 (6, 7). Most Sub- Saharan African (SSA) countries are not on track for meeting the targets pertaining to MMR. Last estimates suggest that the average annual rate of reduction in MMR in SSA countries is less than 1% (8). The proportion of women who delivered with the assistance of a skilled birth attendant is one of the indicators in meeting the fifth MDG. In

almost all countries where health professionals attend more than 80% of deliveries, MMR is below 200 per 100,000 live births (9).

However many efforts have been undertaking to improve utilization of delivery services in primary health services unit of Ethiopia, still utilization is low due to huge diversity of determinants.

Building on the health extension program (HEP), the minimum essential health service packages for the country were introduced in 2005. Family health service package is one of the essential health service packages components. In this package it is highly stressed on improvement of maternal health with due emphasis on the safe motherhood program proposed by the WHO to achieve the (MDG) 5 which includes the promotion of proven key and achievable health messages on pre-pregnancy, pregnancy, delivery and post labour and child births. Here with individual counseling on birth preparedness and complication readiness including danger signs of obstetric complications during labour, delivery and postnatal visits are emphasized (10).

In addition according to a national maternal scoping exercise and strategic recommendation workshop conducted in Ethiopia in 2009, two of the strategic recommendations were " increase awareness of the needs and potential problems of women and newborns during pregnancy, labour and delivery and in postpartum period; and develop capacities for self services, improved services seeking behavior and birth and emergency preparedness " with particular emphasis on increasing awareness of danger signs obstetric and timely services seeking (11) .

1.2 Statement of the Problem

Ethiopia is one of the least developed countries with poor maternal health status. More than twenty thousand mothers lose their life each year from pregnancy and its related effect. The trends of maternal health showed marginal improvement in the year since 2000 but not adequate to meet the reduction of 75% maternal deaths by the year 2015 (12).

Despite the effort to expand health service coverage, the utilization rate remains low. It is necessary to find out why existing health facilities remain underutilized. Institutional delivery is among the lowest utilized maternal health care.

Most papers in Ethiopia focus around antenatal care and few published around health facility delivery utilization. According to the last EDHS report, the proportions of births attended by skilled personnel are very much lower than the SSA. Even for women who have access to the services, the proportion of births occurring in health facilities is very low 10% (6, 7). Twenty eight percent of mothers delivered by TBAs; while the majority of births were attended by a relative or some other person 61% and 5% of all births were delivered without any type of assistance at all (13, 14).

Regardless of saturated health facility distribution in Ethiopia, utilization of institutional delivery remains low in the study area. Last report by Federal Ministry of Health of Ethiopia (FMOH) showed that despite several efforts to improve maternal, neonatal and child health by the Ethiopian government and its alliances in the past 13 years, uptake of skilled services is still low even in settings where services are available (15). This report indicates that although 52% of pregnant women attended antenatal services, only 16% and 19% of women get delivery assistance and postnatal services from health workers, respectively (15). In Oromia About 30% of the eligible mothers received Ante Natal Care (ANC) service and only 8% of the mothers sought care for delivery in the region (15).

There are limited published reports on factors affecting institutional delivery service utilization in Ethiopia. Therefore, it is essential to study the determinants influencing institutional delivery. Thus, this study aims to investigate barrier to institutional delivery among pregnant mothers attaining antenatal care in Robe hospital and Baha biftu Health Center, Bale zone, Oromia region.

1.3 Significance of the study

This study aims to assess barriers to institutional delivery among pregnant mothers attending antenatal care in Robe hospital and Baha biftu Health Center. Therefore; generating an actual data that will give a factual insight on barriers to institutional delivery, adding its contribution to the scientific development of nursing profession on the knowledge of the issue to be searched, Producing information that will help health workers and policy makers about institutional delivery to improve maternal health and Helping other researchers who want to explore more on the topic are the major significances of this study.

2. Literatures Review

2.1. Magnitude of maternal health problems

Concern for good pregnancy and delivery outcome make women the largest segment of population seeking care. Currently less than half of women around the world receive some sort of care, which is not adequate to avert complications (16).

In spite of the various international efforts, over 300 million women are still suffering from acute and chronic complications related to pregnancy and childbirth. Approximately 529,000 women die from pregnancy and its related complication each year that accounts for 20% of total deaths in females, among these deaths over 90% occur in developing countries. Mothers living in developing world face 300 times more risk of death than their counter females living in industrial world. Sub-Saharan Africa and south Asia accounts for 86% of these deaths (17, 16, and 18).

About 80% of maternal deaths related to direct causes namely Hemorrhage, Obstructed labour, eclampsia and unsafe abortion while 20% related to indirect causes such as anemia, malaria, HIV/AIDS and CVD. Between 11 to 17% and 50 to 70% of deaths occur during delivery and postnatal period, respectively of which 45% occur immediately with in 24 hrs following delivery mainly due to postpartum hemorrhage (19, 16).

Poor maternal health care also affects the health of their babies. In a year about 4 million neonatal deaths that accounts for 40% of under five mortalities occur around the world.
Almost 98% of these deaths occur in developing world. Moreover, millions who survived also suffer lifelong disabilities. Globally, over 136 million child births that occur each year, out of which 400 mothers per 100,000 live births die. Over 20 million mothers suffer childbirth related complications. About 23% of them report post delivery problems like urine retention or incontinency, trauma to genital tract, uterine prolapse and fistula attributable to poor labour outcome (16, 17, and 19).

2.2 Poor maternal health progress

As various international efforts have been under way to improve maternal health, some countries succeeded in improving maternal and child health. In 20 century, industrialized nations could halved maternal mortality by improving professional delivery care and further reduced to the current level by increasing access to hospitals. Nevertheless, countries with high burden of maternal morbidity and mortality made little progress or even worsen in some cases (16, 17, and 20).

African countries are achieving the least, less than one percent, far below 5.4% recommended to meet 2015s MDG goal (10-13). Extreme poverty remain the main challenge in regions where the progress remain stagnant by causing a break down in health system that resulted in failure to provide timely and adequate care or provide untimely, ineffective, unresponsive or discriminatory service (21).

All Mothers deserve skilled birth attendants regardless of their risk status. Health institution and skilled health workers are responsible to make childbirth safe. Institutional delivery, a childbirth conducted by skill attendant in health facility built, equipped and managed to provide safe delivery service as one of its function, is responsible to provide greater assurance to find skilled attendants, essential equipments and drugs to manage labour and referral transportation as the need arises (16, 17, 21,22).

During the period of 2001 to 2007, potential health service coverage in Ethiopia expanded from 61.3% to 86.7%; however, utilization remains low due to different reasons. In 2007, out of 3 million expected childbirths, only 451,700 (16.4%) of them were attended by skilled attendants (15). According to EDHS 2005, 94 % of pregnant mothers in Ethiopia give birth at home. Public and private facility delivery accounts only for 5 and less than one percent, respectively. Delivery situation in Oromia Region is not significantly different from that of national figure, where 66.5% and 35% of deliveries occur at home and facility, respectively (23).

2.3 Determinant factors for institutional delivery

2.3.1 Socio-demographic factors

Several studies have indicated that institutional delivery has potential to prevent or cope with complications that arise during childbirth. However, most of mothers prefer to deliver at home and institutional deliveries remain under utilized. Availability and access of the service, maternal or partner education, income status, maternal age are among the major factors affecting institutional delivery utilization (24, 25, and 26). However, availability and access alone cannot reverse maternal condition but the content and quality of facility and service does matter (18, 27, 28, 29). Distance from facility, transportation means and cost found to be among major barriers to health care (20, 30, 31, 32). Mothers living in rural or poor access areas to health facility, most likely to give birth at home (33). According to study based on analysis of EDHS 2000, delivery care utilization ranges 71% in Addis Ababa, to 31% in other urban areas. Mothers living in Addis Ababa, likely to use institutional delivery 40 times more than those living in rural and 4 times than other urban areas(34, 35). Another study conducted in Bench woreda shows 48.8% of urban and 18.5% of rural mothers gave birth at health institutions (36). Study conducted in Indonesia also shows 59% lower odds of facility delivery utilization among women residing in rural area than urban (26).

Income is also another factor that affects institutional delivery Utilization (23, 24, 25, 26, and 31). Unequal opportunity for women to employment and financial resource affects their capacity to make choice of place of delivery and delivery attendants. EDHS 2005 has shown higher employment of 86% among men compared with 29% of women. Though 1/3rd of married women were found to be employed as much as 3/5th of them were not paid at all (23). According to study conducted in Rwanda mothers from higher wealth quintile were 2.6 times more likely to use institutional delivery (24).

A study conducted in Gonder also shows Lower utilization among mothers who earn less than 500ETB OR 0.04 95% C.I (0.02.0.08) compared with those who earn more than 500ETB per month (25). Another study conducted in Indonesia shows 3 times more likely use of professional assisted delivery among high income mothers (26) another study conducted in Ghana shows 4.4 times more utilization of institutional delivery among higher income mothers (31).

Some studies indicated Spontaneous vaginal delivery might cost great amount of household's expenditure. For instance in Togo and Costarica, it costs up to 34% of annual household expenditure (19). Similar study conducted in Kenya indicated mothers living in low-income urban areas face greater obstacle of accessing maternal care facility (37). Similar other study conducted in Ghana shows 18% higher utilization of institutional delivery among mothers from higher income (38). Furthermore a study conducted in Tanzania also indicated 39% lower utilization of institutional delivery among mothers from low income house hold (39).

Several Studies have shown strong correlation of maternal or partners' education status with the choice of place of delivery (24, 25, 26). Mothers who have primary or further educational level tend to use institutional delivery more. In Ethiopia, delivery care utilization is 52 % among Educated and 2% in uneducated mothers, which is 4.5 to 8 time more utilization among primary and secondary level educated mothers (23, 35).

Another Study conducted in Becho woreda showed 2.7 times likelihood of facility delivery utilization among mothers that have secondary education level (36). Most of maternal deaths also occur among families who have no formal education or poor access to obstetric information. Women who have access to radio or information are more likely use skilled attendants (25, 28, and 31).

Similar study conducted in Bangladesh has shown mothers with secondary and higher education 4 to 9 times more likely to use professional assisted delivery when compared without completing education (40). Further another study from the same area has indicated the likely hood of lower utilization of institutional delivery among non educated OR=0.24 and 0.40 among elementary mothers when compared with at least secondary education level. Furthermore this study has shown as upper age mother's more likely to receive modern health care delivery than lower age groups (41).

Religion is another factor that affects institutional delivery service utilization. In Indonesia, non-Muslims had 92% lesser utilization of skilled attended delivery (26). Study in Ghana shows 5.43

more likely utilization of facility delivery among Muslims (31). Nevertheless, in Nigeria Christian uses more than Muslims and local traditional belief followers (42). In Ethiopia Orthodox/Catholic, Muslim, and Protestant women exhibit greater use of maternal health care services than women who follow traditional beliefs (35).

2.3.2. Factors related to obstetric care service and complication

Antenatal care service provides an opportunity for health promotion, prevention, screening and monitoring maternal health problems and helps to arrange for planned delivery (19, 21). Essential obstetric cares can avert 59% of maternal mortality and it has most significant importance in developing countries (20, 24).

According study conducted in Indonesia ANC 4+ visits showed significant increased association with facility delivery (26). Another study conducted in Kenya, 58% of mothers that had 4+ ANC visit used institutional delivery compared with 2% of single visit and 48% 2 to 3 respectively (20), however its effect is limited due to late beginning (32). In Rwanda, 86% of mothers who did not used antenatal care gave birth at home (24).Similarly, study conducted in Ghana also showed 1.5 time more utilization of facility delivery among ANC attendants (31).

Another study conducted in rural India also indicated ANC as independent predictor of institutional delivery utilization where mothers. who had 3+ ANC more likely to utilize 4.33 times compared with those who had none. Similarly mothers who had sever delivery complications, who access health facility within five kilometers and had all weather road has shown 32%, 31% and 31% higher utilization of facility delivery, respectively (43). Another study carried out in Mali also shows similar finding where mother who had no ANC follow up shows significant lower utilization of professional assisted delivery OR=0.206 and institutional delivery OR= 0.188 (44).

Obstetric experience is one of the determinant factors. A mother with history of previous delivery complications tends to use facility delivery more. According to study conducted in Indonesia women that had history of terminated pregnancy and birth complications, have 28% and 24 % greater odds of skilled attendant use (26). Similarly another study conducted in rural Mali has

shown that mothers who had delivery and pregnancy related complication one and half times more likely use institutional delivery than those who had none (44).

2.3.3 .Maternal related factors and house hold status

Mothers age below 20 and above 35 years show lower utilization than age 20 to 35 years. Utilization of facility delivery inversely related to parity and birth order, multiparous mothers are less likely to use institutional delivery and mothers from male-headed households are more likely to use institutional delivery (23, 24, 25, and 26).

Another study conducted in India has shown similar finding where mothers with birth order less than two 1.6 times more likely utilize public facility for delivery likewise mothers of age greater than 30 years and 20 to 30 years, 61% and 63 % more likely use public facility respectively for delivery compared with age less than 20 years (45).

Women status affects freedom to make choice of place of delivery and positive health outcomes. EDHS 2005 indicated positive relation of mother status with utilization of maternal health service including ANC, delivery and PNC where empowered women more likely utilize maternal care. The study has shown only 15% of mothers make their solo decision regarding their own health while one third reported such decisions made by their husband alone (23). Some other studies also singled out as women empowerment can significantly reduce physical violence there by decreases its negative impact on maternal health and pregnancy outcomes (31, 46).

Maternal perception and knowledge is another factor that affects choice of place of delivery. Community and facility based education and partner involvement can play significant role in increasing facility care delivery and utilization of skilled attendant. A study conducted on educational intervention in Bangladesh resulted in two-fold increase in utilization of EMNOC during pregnancy and delivery. A randomized trial study conducted in Nepal also shows 1.9 times increased knowledge of obstetric and complications among mothers received health education with their husbands than alone (47). Some studies also shows allowing mother's companion and attendant presence throughout labour process affects maternal perceptions of

providers as well as facility based delivery care. According to a study conducted in Ghana 85% mothers want their attendant to present throughout labour (22, 48).

Across sectional study in Sheka zone has shown 59% of mothers knew at least one pregnancy related risk further more 52% mentioned at least one accepted pregnancy danger sign while 47.1% mentioned one delivery related danger signs and 56.7% mentioned at least one benefit of institutional delivery further more this study reported significant association of knowledge of pregnancy, delivery related danger signs and benefit of institutional delivery with facility delivery utilization (42).

Another cross sectional study conducted in Rural Bangladesh to assess knowledge, attitude and practice regarding hospital delivery revealed 97% consider pregnancy as period of risk and 80.6% mentioned home delivery as risk however only 7.1% knew delivery danger signs. Though 85.5% showed positive attitude to facility delivery but only 33.2% gave birth at health facilities (49).

Similar other study conducted in Nairobi Kenya (n=394) on birth preparedness has shown that 67% of mothers knew danger signs of pregnancy where 64.2% mentioned hemorrhage, loss/decreases fetal movement by 20.1%, drainage of liquor by 10.9% and swelling of face and hands by 2.3%, respectively (37).

Therefore, this study tries to identify and most important factors associated with institutional delivery utilization among mothers who are attending antenatal care at robe hospital.

2.2 Conceptual framework.

This Conceptual Framework on barriers to institutional delivery *Adapted from too far to walk maternal mortality in context*. Can help to clarify the inter-relationships between Factors Affecting Maternal Health care such as; Socio-demographic and economics, Accessibility of Facilities, quality of care, Physical Accessibility, deciding to seek and utilization of institutional delivery. The arrows shown in the diagram indicates interactions between the variables where most of the factors were interrelated to each other. Factors Affecting Maternal Health care such as; Socio-demographic and economics, Accessibility of Facilities and quality of care are influencing deciding to seek care and physical accessibility which lead to barriers to utilization of institutional delivery. It was helpful to identify barriers to utilization of institutional delivery among ANC attendant.

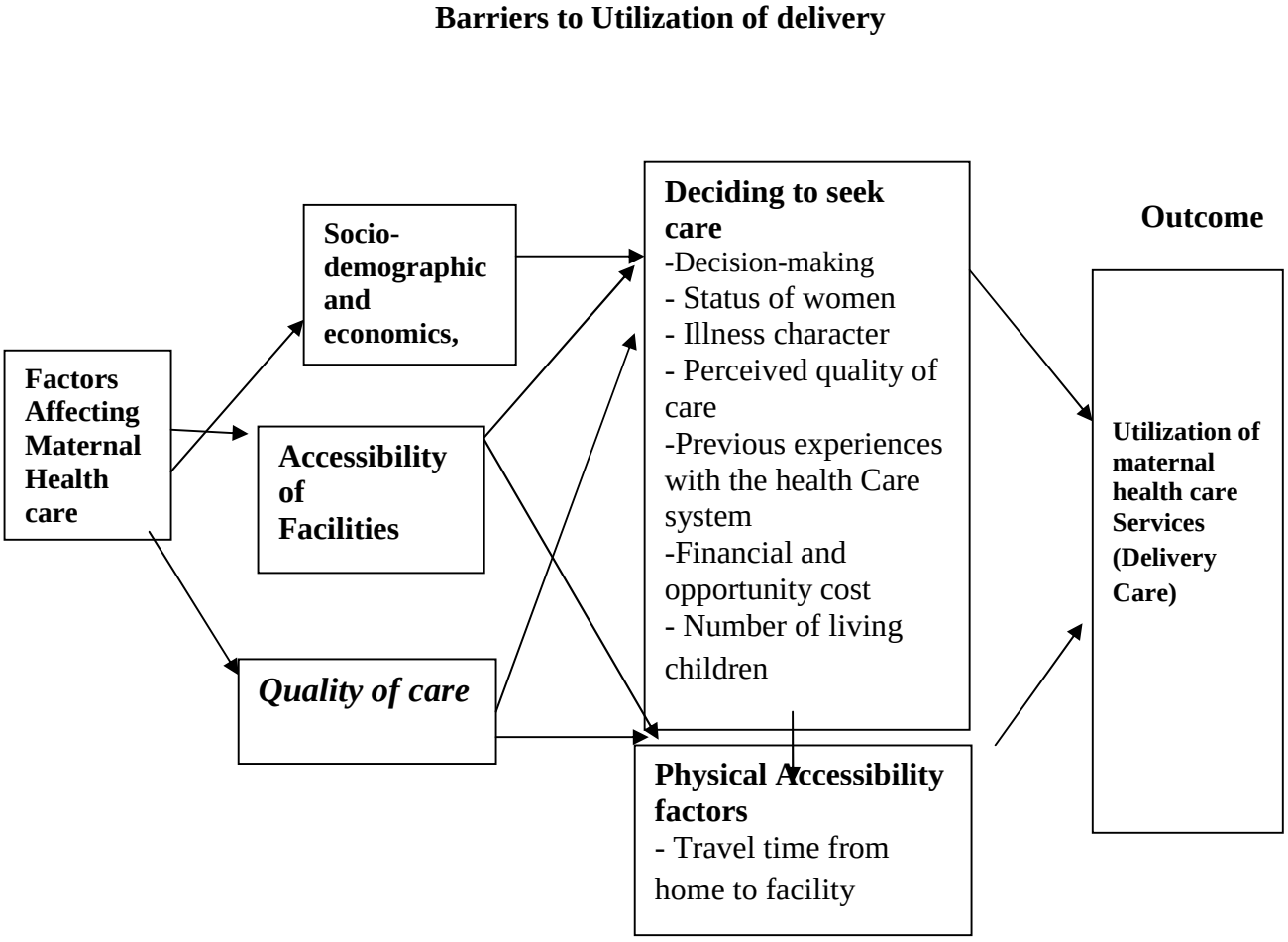

Figure 1. A Conceptual Framework on barriers to institutional delivery *Adapted from too far to walk maternal mortality in context* (50).

3. Objectives

3.1 General objectives

To assess Barriers to Institutional Delivery among pregnant mothers attending Antenatal Care in Robe hospital and Baha biftu Health Center, Bale zone, Oromia region.

3.2. Specific Objectives

1. To determine the magnitude of institutional delivery among pregnant mothers attending Antenatal Care in Robe hospital and Baha biftu Health Center, Bale zone, Oromia region.

2. To identify determinants of institutional delivery service utilization among pregnant mothers attending Antenatal Care in Robe hospital and Baha biftu Health Center, Bale zone, Oromia region.

4. Methodology

4.1. Study area

The study was conducted in Bale zone, Robe Hospital and Baha biftu Health Center, which is located 430 km from Addis Ababa in south east direction. Robe is the capital town of Bale zone. It is administratively divided into four kebeles. According to the 2007 census, the population size is 47,297. The major ethnic group based on population size of the town is Oromo. The town ha one hospital and five private clinics for profit.

4.2. Study Design and Period

A quantitative cross-sectional institution based study was conducted between the months of November 2013 and June 2014.

4.3. Source population:

The source population was all women of reproductive age groups (15-49 years) who were served in Robe hospital and Baha biftu Health Center during the study period.

4.4. Study populations:

The study populations were all pregnant women attending ANC service at Robe hospital and Baha biftu Health Center during the study time.

4.4.1. Inclusion criteria

- All antenatal attended primigravida mothers.
- All antenatal attended mothers who gave birth within the last five years prior to the study period.

4.4.2. Exclusion criteria:

- Mothers who gave last birth for longer than five years during the study period.
- Mothers who were not mentally and/or physically capable of being interviewed.
- Mothers who were not agree to participate in the study.

4.5. Sample size determination

Sample size calculation was made based on the following assumptions.

- A 95% confidence interval
- 4% margin of error (d=0.04)
- P (proportion of HI delivery among antenatal attendant mothers in oromia region) =0.8 (16, 17)
- $Z\alpha/2^2$ of 1.96

Hence, the Sample size was calculated by using a single proportion cross-sectional formula:

$$n = \frac{Z^{\propto}{}_2{}^2 . P(1-P)}{d^2}$$

$$n = \frac{1.96^{\ 2}.0.08(0.92)}{0.04^2} = 177$$

- Additional 10 % for non-response rate

The final sample size to be used for the study was **195.**

4.6. Sampling Procedure

The sampling procedure for this study was through systematic random sampling method. Since sampling frame of the study area was 600 women's, every third of visiting mothers was considered until the desired number of sample size achieved.

4.7. Study Variables

4.7.1. Independent Variables

- Socio demographic -Maternal Age, Marital status, Ethnicity, religion, house hold income, Educational status (women/husband), Occupation (women/husband)
- Obstetrics characteristics - Gravidity, Parity, birth order, ANC use, childbirth complications, knowledge of obstetric risks, risks of home delivery, benefit of HF delivery, previous facility delivery experience
- Social factors -decision role of significant others, reasons for use and non use of facility delivery care, risk perceptions related to pregnancy and child birth.
- Health facility factors-distance, availability of delivery care, service free**,** supplies, skill of health workers, conduct of skilled attendants and perceived quality of delivery care among factors included in the study.

4.7.2. Dependent Variable

- Institutional delivery service utilization

4.8. Data Collection methods

- Face to face interview with structured questionnaire.

4.8.1. Pre testing

Prior to the main data collection, pre test was conducted on twenty mothers from Goba hospital that was no chance to participate in the main study on mothers who was characteristically similar to the participant ones. Pre test was used to improve the precision, reliability, and validity of data. Following the analysis of the pretest outcome, ambiguous or unimportant questions were removed and unclear statements were rephrased based on identified problems and omissions. The time required for data collection was also determined and used for further data collection planning.

4.9. Operational Definitions

1. **Institutional delivery**: delivery conducted in health institutions through assistance of skilled attendants.
2. **Home delivery**: delivery took place at locations other than health facility.
3. **Institutional delivery service utilization**: Giving birth at a setup where safe delivery is being provided, at health facilities built and equipped for this service.
4. **Primigravida**: mothers who are pregnant for the first time.
5. **Safe Delivery**: delivery conducted by skilled attendants to monitor the progress and manage labour in order to avoid complications that endangers the wellbeing of both mother and newborn.
6. **Skilled attendant**: people with midwifery skills (as doctors, midwives, and nurses) who have been trained in the skills necessary to manage normal deliveries and diagnose, manage, or refer obstetric complications.
7. **Women of childbearing age**: Any women of aged 15 to 49 years old irrespective of their fertility status. `

4.10. Data collection Instrument

Data for the study was collected through structured interview questionnaire. The questionnaire was taken from the safe motherhood questionnaire developed by maternal and neonatal health

program of JHPIEGO, the affiliate of Johns Hopkins University, and adapted according to the local context and objectives of the study (51).The English version of the structured questionnaire was translated in to Afan Oromo by legal translator and it was translated back to English by another translator to maintain its consistency.

4.11. Data collection procedure

Two data collectors and one supervisor were recruited by PI based on their knowledge of local language and educational background with at least 10 + 2 grade completion. They were given two days training on research ethics, their responsibilities and administrative issues including the work schedule by principal investigator prior to data collection period.

For data collection, each eligible mother was interviewed until the pre-determined sample size was obtained. The principal investigator and supervisor was closely monitored data collection activity on daily bases.

4.12. Data entry and analysis

The data was entered by EPI INFO version 3.2.2 and export to statistical package for social science (SPSS) version 16 to analysis the data. Descriptive and inferential statistics was employed. Frequencies, proportion and summary statistics was used to describe the study population in relation to relevant variables. Univariate and Bivariate analysis was used to assess the unadjusted effects of independent variables which were estimate without controlled for other variables.

Furthermore variables shown statistical significance in bivariate analysis included in multivariate logistic regression model to predict the adjusted effect of independent variables by controlling of possible confounding effects .Odds ratio with 95% confidence interval was employed to assess statistical significance and degree of association between independent and dependent variables.

4.13. Data quality

The questionnaire was reviewed, pretested and adjusted accordingly based on pretest findings. Two days training was given to the data collectors and supervisors. Data was collected under close supervision of principal investigator and supervisors. Ten percents of the questionnaires was double entered and checked for consistency after data entry.

4.13. Dissemination of the result

The findings from this study will be communicated with organizations working on maternal health in the region, Regional health Bureau and submitted to Addis Ababa University School of graduate studies for partial fulfillment of degree of Masters in maternity and reproductive Health. Effort will be made to publish the findings on peer reviewed scientific journal.

4.14. Ethical considerations

Ethical approval was obtained from Institutional research Review Board (IRB) of School of Allied Health Sciences department of Nursing and Midwifery. It was also obtained permission latter from zonal and hospital head before conducting the study. Written informed consent was obtained from all participants before data collection started. The participation was purely voluntary, and the right of not to answer any part or all of questions was respected.

Chapter 5:-Results

5.1 Socio demographic distribution of the study subjects

A total of 177 mothers who are ANC attendants at the time of survey were interviewed; of these, 80 (45.2%) were pimigravida and 97 (54.8%) were multigravida with 90.7% participation rate. The median age of the respondents was 23 with SD 4.2 years. The majority of the attendants were between age group of 20 – 24, 80 (45.2%) (Table 1).

Regarding their marital status, all of them were married. About thirty three percent of the mothers attended secondary and above 12 education while 60(33.9%) of the mothers were unable to read and write. Among the respondents, 164 (92.7%) of mothers were housewives. The rest (13)7.3% were Employed. 166(93.8%) of the mother were Oromo, 9(5.1%) Amhara and 2(1.1%) were Tigre. And regarding their religion 124(70.1%) were Muslim, 45(25.4%) Orthodox and 8(4.5%) were protestant.(Table 1).

Table 1: Socio demographic distribution of ANC attendants at Robe Hospital and Baha biftu Health Center, South East Ethiopia.2006

Variables	Response	Number	Percentage
Age	15-19	26	14.7
	20-24	80	45.2
	25-29	51	28.8
	30-34	20	11.3
Educational status	never attended	60	33.9
	only read and write	15	8.5
	elementary	43	24.3
	secondary high school	47	26.6
	above 12	12	6.8
Ethnicity	Oromo	166	93.8
	Amhara	9	5.1
	Tigre	2	1.1
Occupational status	house wife	164	92.7
	employee	13	7.3
Religion	Muslim	124	70.1
	orthodox	45	25.4
	protestant	8	4.5
Marital status	married	177	100.0

5.2 Place of birth for last pregnancy

Regarding place of delivery last pregnancy, 56(57.7%) were said Home and 41(42.3%) Health facility. The participants were asked for reason for home delivery of their last pregnancy and about 36(57.1%) Not to be attended by male midwife, 10(15.9%) not necessary, 10(15.9) they want to gave their first birth in their mother home, 3(4.8%) Facility far, 3(4.8%) No new born care and 1(1.6%) No transport. They were also asked whether they were aware of risk of home delivery and about 113(63.8%) were aware while the rest not.

They were also asked about the preventability of complication during delivery and benefit of giving delivery at health institutions. About 113(63.8%) ANC attendants were known benefit of giving birth in health facility and most of the deliver complications were preventable, while the others not (Table 2).

Table 2. Magnitudes of health institution delivery for the last delivery at Robe Hospital and Baha biftu Health Center, South East Ethiopia.2006

		No	%
Place of last delivery	Home	56	57.7
	Health facilities	41	42.3
	Total	97	100.0
Was the place of delivery planned for your last pregnancy?	Yes	55	56.7
	No	42	43.3
Reason for home delivery for your last pregnancy.	Not necessary	10	15.9
	Facility far	3	4.8
	No transport	1	1.6
	No new born care	3	4.8
	Not to be attended by male midwife	36	57.1
	They want to gave their first birth in their mother home,	10	15.9
	Total	**63***	100
Arrangements for last birth(birth preparedness)	Yes	55	56.7
	No	42	43.3
Types of arrangement	Identifying transport	10	12.5
	Save money	31	38.8
	Identify blood donor	4	5
	Identifying place of birth	33	41.2
	Identifying skilled provider	2	2.5
	Total	80	100
Decision maker on last place of birth	Only me	15	15.8
	My husband	9	9.5
	both	71	74.7
	Total	95	100

* This number exceeds the number of home delivery due to multiple responses.

5.3 Antenatal Care Services Utilization

Among ANC attendants at times of survey about 80 (45.2%) were primigravida and 97(54.2%) were multigravida. 68(38.4%) multigravida were taking ANC check up for their last pregnancy, from those 1(1.47%) visited ANC one times, 9(13.2%) visited ANC two times, 32(47%) visited ANC three times, 26(38.2%) visited four and above, while 29(16%) were not taking ANC check up for their last pregnancy. ANC Attendants gave different reasons for initiating ANC visit for the first time. Among the several reasons given, 67(98.5%) were for medical checkup and regular follow up, while 1(1.5%) were for health problem (Table 3).

Regarding mothers who received health education during each ANC visit, 52(74.3%) had been given health education on birth preparedness and complication readiness while the other 18(25.7%) were not. the topic that had been given during health education, 42(42.8%) about complication during pregnancy, 26(26.5%) about complication during delivery, 18(18.4%) about complication during postnatal, 8(8.2%) about place of birth and 4(4%) about emergency case. The main reason for those who were not attending ANC check up 29(16%), 28(19.2%) were busy, 28(19.2%) were waiting time, 28(19.2%) were husband disapproval and 18(12.3%) were having little knowledge.(Table 3)

Out of the total women who were attend ANC checkup for their last pregnancy, regarding home birth, 56(32%) Not to be attended by male midwife, 56(32%) they want to gave their first birth in their mother home, 36(20.6%) due to no child care, 10(5.7%) no time to go, 10(5.7%) not necessary and 7(4.0%) other (Table 3 &Figure 2).

Table 3: Distribution of study subjects on ANC utilization for Last pregnancy at Robe Hospital and Baha biftu Health Center, South East Ethiopia2006

Variables	Response	No	%
Total number of pregnancy	Gravid II-III	59	33.3
	Above III gravida	38	21.5
Did you have ANC check up for last pregnancy	Yes	68	38.4
	No	29	16.4
Total number of visits in your last pregnancy	One	1	1.47
	two	9	13.2
	three	32	47
	Four and above	26	38.2
The main reason initiated for ANC follow up for your last pregnancy.	Health problem	1	1.5
	To start regular check up	67	98.5
Was health education given during ANC visit for your last pregnancy?	Yes	50	74.3
	No	18	25.7
If yes, On which topic health education was given?	Complication during pregnancy	42	42.9
	Complication during delivery	26	26.5
	Complication during postnatal	18	18.4
	Place of birth	8	8.2
	Emergency case	4	4.1
Reason for not attend ANC during last pregnancy?	Little knowledge	18	12.3
	Good health	**6**	4.1
	Busy	28	19.2
	Expensive	28	19.2
	Waiting time	28	19.2
	Husband disapproval	28	19.2
	Others	12	6.8
Was it planned place of birth for last pregnancy?	Yes	55	56.7
	No	42	43.3
Reason for home birth among ANC attendant for last pregnancy.	Not necessary	10	5.7
	Not to be attended by male midwife	56	32
	due to no child care	36	20.6
	They want to gave their first birth in their mother home,	56	32
	No time to go	10	5.7
	Others	7	4.0

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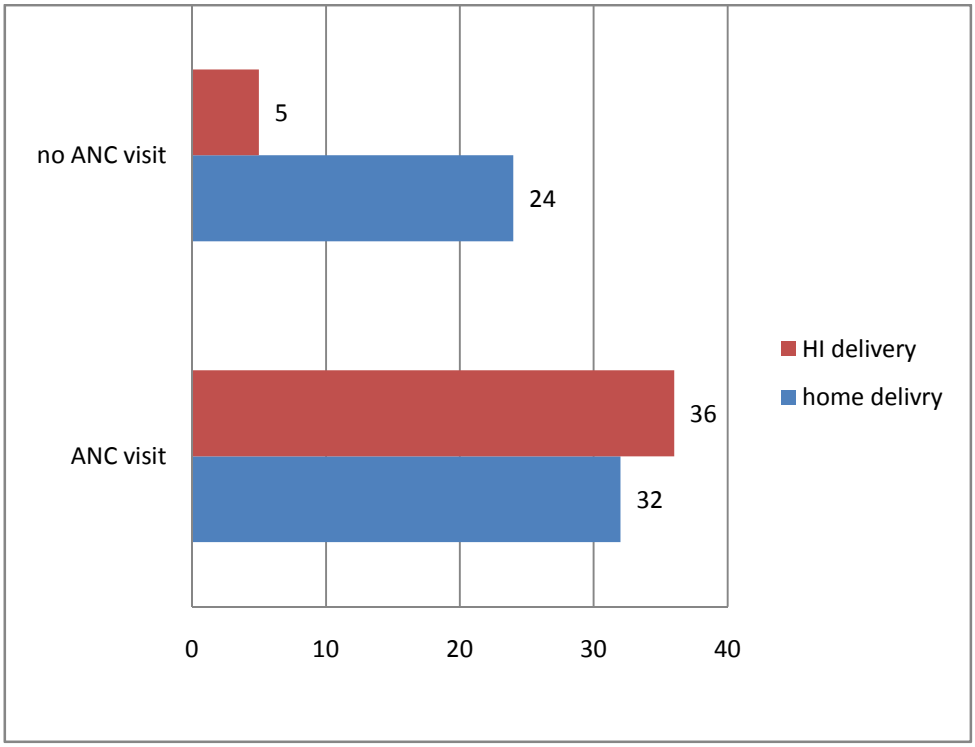
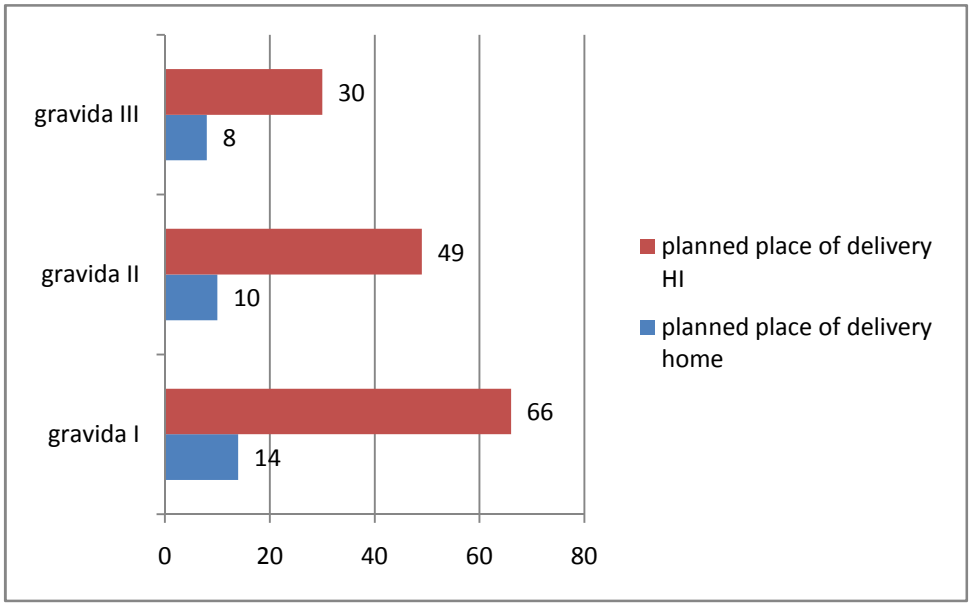

no ANC visit
ANC visit
5
24
36
32
0
10
20
30
40
HI delivery
home delivry

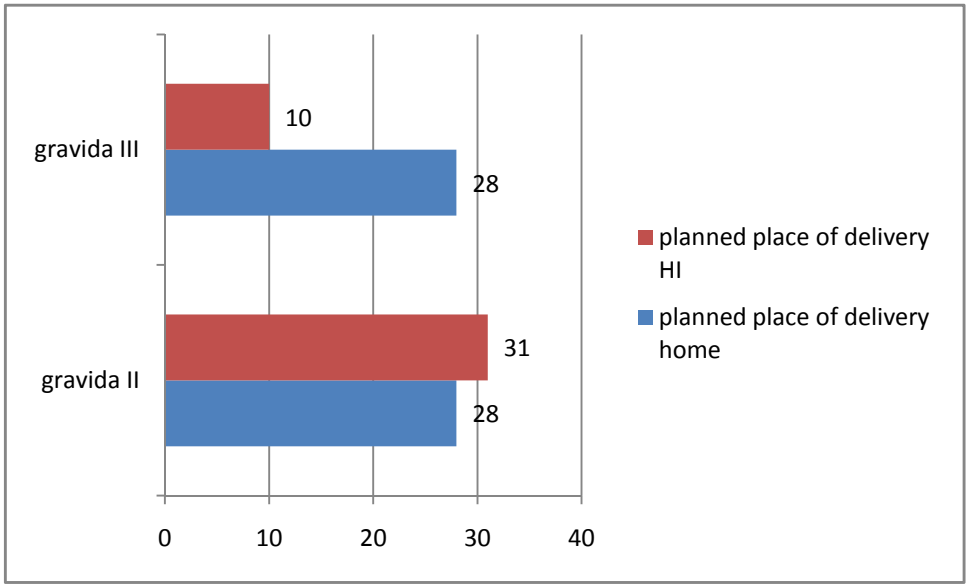
5.4 planned Place of birth for current pregnancy

On the other hand, 145 (81.9%) were planned to gave birth in health facility for current pregnancy, while 32 (18.1%) were planned to gave birth in home. the reason to planned to gave birth in home, 18 (56.2%) Not to be attended by male midwife, 10(31.2%) They want to gave their first birth in their mother home, and 4(12.5%) not necessary.113(63.8%)were know risk of home delivery, 113 (63.8%) benefit of giving birth in health facility and113(63.8%) most of the deliver complications were preventable, while 64(36.2%) were not know risk of home delivery, 64(36.2%) benefit of giving birth in health facility and 64(36.2%) most of the deliver complications were preventable.(Table 4, Figure 3 & 4).

Table 4: Distribution of study subjects of planned place of birth for current pregnancy at Robe Hospital and Baha biftu Health Center, South East Ethiopia 2006

Variables	Response	Number	Percentage
IS current pregnancy planned (wanted)	Yes	156	88.1
	NO	21	11.9
Planned place of birth for current pregnancy	Home	32	18.1
	Health facility	145	81.9
Reason for planned place of delivery at home.	They want to gave their first birth in their mother home,	10	31.2
	Not to be attended by male midwife	18	56.2
	Not necessary	4	12.5
Do you know Risk of home delivery	Yes	113	63.8
	No	64	36.2
Do you know Benefit of giving birth in health facility	Yes	113	63.8
	No	64	36.2
Do you know that most of the deliver complications are preventable?	Yes	113	63.8
	No	64	36.2


gravida III
gravida II
gravida I
30
8
49
10
66
14
0
20
40
60
80
planned place of delivery HI
planned place of delivery home


gravida III
gravida II
10
28
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planned place of delivery HI
planned place of delivery home

5.5 Factors associated with planned institutional delivery for current pregnancy

To see independent predictors of institutional delivery those factors found associated on binary logistic regression was entered to multiple logistic regressions were identified. Those mothers who had no health education at ANC visit were less likely to give birth at health institution than their counter parts **(AOR=0.15, 95%CI: 0.44-0.48)** (Table 5).

The odds of pregnant mothers who had arrangement on place of delivery were more likely to give birth at health institution than those who don't had any arrangement on place of delivery. **(AOR=4.8, 95%CI: 1.27 -17.72).** Those pregnant mothers on ANC follow up and had not planned for current pregnancy were less likely to give birth at health institutions than who planned to be pregnant(**AOR=0.01, 95%CI: 0.05- 0.37).** Those pregnant mothers who were not Aware Risk of home deliver were less likely to give birth at health institution than who were aware of the condition**(AOR=0.06, 95%CI: 0.023 - 0.18)**(Table 5).

Mothers of one to two gravid were more likely to give birth at health institution than mothers of gravid three and above **(AOR=2.3, 95%CI: 1.06 - 4.99)** (Table 5).

Pregnant mothers who were never heard or Aware complication of delivery preventable and Benefit health facility delivery were less likely to give birth at health institution than their counter parts**(AOR=0.06, 95%CI: 0.023 - 0.18)**, **(AOR=0.07, 95%CI: 0.02 - 0.18)** respectively(Table 5).

Occupational status, religion and age were not found significantly associated with giving birth at health institution in this study (Table 5)

Table 5 Factors Associated with planned place of birth for current pregnancy among ANC followers At Robe hospital and Baha biftu health center, south east Ethiopia, Bale Robe, 2006

Variables	Response	AOR	95%CI	p- value
Health education on current ANC visit	No	0.15	**0.44-0.48**	0.002
	yes	ref		
Arrangement for birth Place	No	4.8	**1.27 -17.72**	0.020
	yes	ref		
Planed place of birth for current pregnancy	No	0.01	**0.05- 0.37**	.000
	Yes	ref		
Aware Risk of home deliver	No	0.06	**0.02-0.18**	.000
	yes	ref		
Aware complication of delivery preventable	No	0.06	**0.02 - 0.18**	.000
	Yes	ref		
Benefit health facility delivery	No	0.07	**0.024- 0.183**	.000
	yes	ref		
Religion	Muslim	1.1	0.47 - 2.46	.859
	Christian	ref		
Number of visited on your last pregnancy	1-3 visit	3.7	**1.19 - 11.29**	.024
	4 and above visit	ref		
age5	15-24	1.9	0.836 - 4.272	.126
	25-34	ref		
Number of pregnancy from 1-to 2 number	1 to 2 pregnancy	2.3	**1.06 - 4.99**	.036
	Three and above	ref		

6.6 Factors associated with last place delivery of last pregnancy among ANC attendants

To identify factors associated with place of delivery of last pregnancy variables significant on binary logistic regression were re entered to multiple regressions. Finally numbers of gravid, arrangement for place of birth and health education during each ANC visit were significantly associated with place of delivery of last pregnancy (Table 6).

Table 6: Factors Associated with place of delivery for last pregnancy among ANC followers At Robe hospital and Baha biftu health center, south east Ethiopia, Bale Robe, 2006

Variables		COR	95%CI:COR	AOR	95%CI:AOR	P-Value
ANC check up	No	0.185	0.063-0.542*	0.377	-	0.999
	Yes	REF				
Number of Gravid	I -II	3.100	1-28-7.50*	17.0	**3.0-99.3***	0.001
	III and above	REF				
Heard benefit of HI delivery	No	.143	0.054-0.379*	1.761	0.07-42.40	0.727
	yes	REF				
Arrangement For Place of Birth	No	.073	0.025-0.218*	0.027	**0.002-0.36***	0.007
	Yes	REF				
Was delivery place planned	No	.127	0.048-0.338*	.591	0.061-5.69	0.649
	Yes	REF				
Health education during ANC visit	NO	.139	0.04-0.486*	.017	**0.00-0.94***	0.047
	YES	REF				

*Indicates p value less than 0.005

Chapter 6:-Discussion

Antenatal care service provides an opportunity for health promotion, prevention, screening and monitoring maternal health problems and helps to arrange for planned delivery (19, 21). Essential obstetric cares can avert 59% of maternal mortality and it has most significant importance in developing countries (20, 24).

Several studies have indicated that institutional delivery has potential to prevent or cope with complications that arise during childbirth. However, most of mothers prefer to deliver at home and institutional deliveries remain under utilized (24, 25, and 26). The finding from this study also revealed that the magnitudes of home delivery were higher than that of health institution deliveries.

Study conducted in five densely populated zone of southern region revealed that 26.1% of the women received ANC for their last pregnancy (12). However the result from this study revealed that about 38.45% were received the care. The possible explanation for this finding may be awareness of the population and the sample size difference.

The FMOH report of 2010/11 indicates that although 52% of pregnant women attended antenatal services, only 16% and 19% of women get delivery assistance and postnatal services from health workers, respectively (15). In Oromia About 30% of the eligible mothers received Ante Natal Care (ANC) service and only 8% of the mothers sought care for delivery in the region (15). This study also found that of ANC attendants for their last pregnancy about 36(52%) were gave birth at health institution which is higher than the magnitudes of health institution delivery among ANC users in oromia region. The possible reason for this difference might be this study was conducted at urban level and that of oromia includes both urban and rural areas.

Different factors were associated for choice of place of delivery for the last pregnancy in this study. This factor includes number of gravid, health education ANC visit/session on importance of Health institution delivery and arrangements for place of delivery/birth preparedness on place of birth.

According to study conducted in Indonesia ANC 4+ visits showed significant increased association with facility delivery (26) and another study conducted in Kenya, 58% of mothers that had 4+ ANC visit used institutional delivery (20), but this study contradict the study above, this study found that those mother who were visited ANC less than three gave birth at health institution than those who visited ANC four and above. The possible reason for this contradiction might be the majority of ANC attendants were primigravida and those primigravida mothers wants to give birth in mother home after they finished their visiting. B/c of religion, culture and also most of the time the labour started at night.

Study conducted in Bench woreda shows 51.2% of urban mothers gave birth at home (36) which is comparable with the finding from this study. The main reasons mentioned for high magnitudes of home deliver were perceived not to be attended by male midwife. This finding consistent with finding from different literatures which showed that availability and access alone cannot reverse maternal condition but the content and quality of facility and service does matter (18, 27, 28, 29).

Among the women who had not utilized ANC in this study, the major reason reported for not using the care were due to long waiting time, husband disapprovals, being busy, perceived good health and service inexpensive. These reasons are consistent with the finding of other studies in Ethiopia (9-13)

Study done in Rwanda showed that about 86% of mothers who did not used antenatal care gave birth at home (24).Similarly, this study revealed that from about 82.8% who were not used antenatal care gave birth at home. Regardless of the number of ANC visit for the recent/last pregnancy those who were used antenatal care used Health institution for delivery (X^2= 10.618, p, 0.001). This finding is consistent with Study conducted in Ghana which showed low utilization of Health facility delivery among ANC attendants (31). Study carried out in Mali also shows similar finding where mother who had no ANC follow up shows significant lower utilization of institutional delivery (44).

Another Study conducted in Becho woreda showed that likelihood of facility delivery utilization among mothers that have secondary education level (24).however, finding from this study showed that education level of ANC attendants were not significantly associated with place of last delivery on multiple regression.

Chapter 7:- Strengths and weakness of the study

Strength of the study

- Well structured questionnaire used.
- Full information was given about the objective of the study and agreement was obtained from clients, before data collection, and daily checkup made for the completeness of the questionnaire at field level and during data collection time.
- Planned for current pregnancy for place of birth, it may be difficult to get real score. But in this study, it was tried to avoid such problems by taking out identifiers like names and medical registration numbers.

Limitations of the study

- Since the study was institutional based might underestimate the results.
- There is lack of adequate literatures in our country.

Chapter 8:-Conclusion and recommendation

7.1 Conclusion

This study found that High magnitudes of home delivery among ANC attendants and number of gravid, arrangement on place of birth, health education during ANC visit and plan for place of delivery were significantly associated with health institutional delivery.

7.1 Recommendation

Based on the finding:-

- The Bale zone and Robe town health office should still work on increasing health institution delivery through female midwife
- Also have to strengthen Health education for ANC attendants in both Robe hospital and Baha Biftu Health Center to encourage institution delivery
- Health care workers at Robe hospital and Baha Biftu Health Center should Give continuous health education on benefit of institutional delivery
- Regular supervision should be given for Urban Health extension Workers From the zone and Town Health offices

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Annexes:

Annex I. Information sheet English version

Information sheet: For study on assessment of Barriers to Institutional Delivery among pregnant mothers attaining Antenatal Care in Robe Hospital, Bale zone, Oromia region.

Greeting- Hello!

My name is _____, this study is conducting by Muhammedawel Abduku, He came from Addis Ababa University Nursing Department, Post graduate school, and he has permission from Regional Health bureau. The reason why he came here is to conduct a research on assessment of barriers to institutional delivery among pregnant mothers attaining antenatal care. The purpose of this study is to identify Determinants of Institutional Delivery Service Utilization and fore ward some recommendation to concerned bodies that will help to improve the existing efforts in the area of maternal health services. If you have pregnancy now or in the last five years, your participation is very important to the outcome of the study. If so, I would like to ask you some very personal questions which may take about 30 minutes. All the information that you are going to provide me will remain confidential and you don't need to mention your name. For this reason, I kindly request you to give me your sincere and truthful answer. All this is completely on voluntary bases and you have the right to refuse from participation. Participation or non-participation and refusal to answer questions will have no effect on your life. If you have further questions or would like to know the results of this study, please feel free to contact the principal investigator; with the following address.

- Mohammedawel Abduku
- Cell phone: +251924569164,
- E-mail: muhe.aziza@gmail.com

Annex II. Informed consent form English version

Questionnaire for facility based survey on Barrier to Institutional Delivery among ANC attendant in Robe Hospital Bale zone, Oromia region.

Verbal consent

Greetings

Hello! My name is _____. I am working in research team of Addis Ababa University Department Nursing and Mid wifery.

We are conducting a study of Barrier of Institutional Delivery among Pregnant mothers attending Antenatal Care. You are kindly requested to be included in the study, which will have importance in improving maternal and child health services. The interview will take about 30 minutes. No information concerning you, as individual will be passed to another individual or institution without your agreement. Your participation is voluntary and you have the right to not participate fully or partially. If you agree to be included in the study I will start my questions by asking general identification points. Only honest answers would contribute to improvement of health planning.

The study has approval from Addis Ababa University. “May I continue?”

If yes, continue interviewing

If No, thank and stop interviewing

Name of the interviewer._____ Sign, _____ Date of interview_____

Name of the supervisor, _____ Sign, _____ Date_____

Annex III. Questionnaire English version

Part one questionnaire on socio-demographic characteristics.

No	Questionnaire on identification of the respondants.	Alternative choice for responses	Skip	Code
101	How old are you now?	__Years		
102	What is the highest level of schooling you have ever attended?	1. Never attended 2. Only read & write 3. Elementary school 4. Secondary high school 5. 12+		
103	What ethnic group do you belong?	1. Oromo 2. Amhara 3. Tigre 99. Other specify		
104	What is your occupation?	1. Housewife 2. Employee 99. Other specify		
105	What is your religion?	1. Muslim 2. Orthodox 3. Protestant 99. Other specify		
106	What is your marital status?	1. Married 2. Unmarried 3.Other specify		
107	What is the average family income per months?	_____ Birr		
108	How many times you become pregnant?	1, one 2, 2 – 4 3, > 4		
109	How many times in total you gave birth?	1, none 2, 1 3, 2 – 4 4, > 4		
110	How many of your pregnancy resulted in baby that was born alive?	1, none 2, 1 3, > 2		
111	How many of your pregnancy resulted in abotion?	1, none 2, 1 3, > 2		
112	How many of your pregnancy resulted in baby that was born dead?	1, none 2, 1 3, > 2		

Part two questionnaire on ANC

	Questions		Skip	Code
201	Did you plan or wanted your current pregnancy?	1. Yes 2. No		
202	How many times you visited ANC during current pregnancy?	1, 1 2, 2 - 3 3, > 4		
203	Is your current pregnancy is the first one?	1,Yes 2,No		
204	Did you go to health institution for ANC check up during your previous last pregnancy?	1. Yes 2. No		
205	What was the total number of visits?	1. Once 2. Two 3. Three 4. Four and more		
206	What was the main reason you initiated for ANC follow up?	1. Health problem 2. To start regular check up 99. Other specify___		
207	Was health education given during each visit?	1. Yes 2. No		
208	Did you know pregnancy related health risks?	1. Yes 2. No	If no skip to Q. 301	
209	On what topic was health education given?	1.danger sign during pregnancy 2. danger sign during delivery 3 danger sign during post partum 4. Place of delivery. 5.where to go in case of emergence 99.Otherspecify		

210	Why did not you attend ANC during last pregnancy? (Multiple Response is possible)	1. No or little knowledge about ANliiC clinics 2. Being in a state of good health 3. Too busy to attend ANC clinics 4. Expenses for ANC clinic Are Unaffordable 5. ANC clinic too far from my home 6. Waiting time is too long at ANC 7. Husband disapproval 8. Poor quality of the Services. 9. Because of religion 10 .ANC attendance is useless 99. Others specify.		

Part three questionnaire on delivery

	Questions		Skip	Code
301	Where did you give birth to your last child?	1. Home 2. Health facility home		
302	Was it planned?	1. YES 2. NO	If yes skip to Q 304	
303	What was your reason for not giving birth in health facilinty for your last child?	1.didn't think necessary 2. Facility too far 3. No transport 4. No child care 5. Not to be attended by male midwife 6. I want give labour my first pregnancy in my mother home 8. No time to go 97. Other (specify) _____		
304	Prior to this birth, did you make any arrangements for the birth of this child?	1. YES 2. No	**If No, skip toQues.306**	
305	Which arrangements did you make for the birth of this child?	1.Identify transport 2. Save money 3. Identify blood donor 4. Identify where to give birth 5.Identify skilled		

		provider 97. other(specify		
306	Who made the final decision concerning place of birth?	1. me 2. my husband 3. me & my husband 4. Mother-in-law 5. Neighbors 97. Other(specify)		
307	Did you planned for place of birth for current pregnancy?	1. Yes 2. No		
308	Where did you planned?	1. Home 2. Health facility	If no skip to Q. 310	
309	If at Home, why?	1.didn't think necessary 2. Facility too far 3. No transport 4. No child care 5. Not to be attended by male midwife 6. I want give labour my first pregnancy in my mother home, 7. No time to go 97.Other(specify) _____		
310	Did you know any risk of home delivery**?**	1. Yes 2. No		

311	If yes, which risks do you know?	1. Vaginal bleeding 2. Infection 3. Fetal death		
312	Did you Know any benefit of giving birth at HF?	1. Yes 2. No		
313	Did you Know most of the deliver complications are preventable?	1. Yes 2. No		

Part IV. Participant information sheet Afaan Oromo version

Univarsityii Addis Ababa fi garee deesistoota sagantaa Mastersaa

Umriin isaanii 15 – 49 dubartoota ta'aniif yaada tokko tokko fidhiidhaan akka nuu kennan kan qarqaaru.

Akkam bultan/oltan?

Maqaan kiyya_____ jedhama. Ani univarsityii finfinneet barataa mastersaa yoo ta'u, qorannaa deegarsaa kutaa barnoota Narsiifii Midwayifarii kan geggeefamu irratti Anaaf Isiin jiddutti daqiiqaa 30maaf marii qabna. Kanaafu akka hirmaattan kabajaan isin gaafadha.

Gara marii seenun duratti haalafii kayyoo qo'annoo waan isinii dubbisuuf akka nahordoftan isin gafadha. Dhuma irratti qo'annoo kana irratti hirmaachuf waliigaluufi waligaluu dhabu keessan natti himtan.

Kaayyoon qo'annoo kanaa dubartoota Hospitaal Robetti hordoffii ulfaatif kan dhufan waa'ee fayyadama hospitaalatti dahuu ilaala. Yaani keessan fayyaa haadholee foyyessuuf tattaaffii godhamaa jiru nideeggara.

Turtii qabnu keessatti iccitiin ni eeggama, maqaan kessan hinbarreefamu, deebii kessan nama biraatif dabarsinee hinkennamu. Gabaasa qorannoo irratti waa'een kessan hin ibsamu.

Unki hayyama kessan irratti kan hundaa'e yoo ta'u hirmaachu dhabuu kessatti, ammas ta'ee ufduratti tajaajila isin argattan irratti dhiibbaa hinqabu.

Qorannoo irratti hirmaachuf fedhii niqabdu?

1. Eeyyeen 2. Hinqabu ***topic_he***

Yaadannoo

1. Fedhii yoo qabaattan gara unkaa guttamutti darbaa.

2. Namoonni tajaajila isinii kennu qorannoo kesatti akka hirmaattan dirqisisuun hindanda'amu.

Qorrannoo kanairratti hundaa'ee yoo gaafii kan qabattan ta'e .

- Mohammedawel Abduqquu
- Lakk. Bil. 0924569164,
- E-mail: muhe.aziza@gmail.com

Annex V. Informed consent form Afaan Oromo version

Questionnaire for facility based survey on Barrier to Institutional Delivery among ANC attendants in Robe Hospital Bale zone, Oromia region.

Walii galitee

Nagaa gaafachu

Ani Obboo _____ , miseensa garee qorannoo irra.

Qoranoo kun kan inni irratti xiyeefatee, waa'ee haadholee osoo hordoffii ulfaa mana yaalati qaban booda mana yaalaa dhiisan manatti dahan(dhalan) . kanaafuu qorqnnoo kana irrattii wanta isin irraa eegamu akka nuufgotan kabajaan isin gaafanna. Kuni ammoo fayyaa hadhooleefii daimmaniif fayidaa guddaa jijjiirama qabu akka fidu niqarqaara.

Waliigalitee kessaniin ala iccitii kessan nama tokkoofu yokan ammoo waajira tokkoofuu akka dabarsinee hinkenineef waadaa isinii galla. Yoo qorqnnoo kana irratti hirmachuu waliigallee gaafii waliigalaa irraa isinii jaliqabaa. Deebii kessan kan dhugaa irratti hundahee fayidaa jijjiirama fayyaatif nuqarqaara.

Qorannoon kun karaa univarsitii addis ababa irraa fudhatama argatee jira. Kanafuu qorannoo kanarratti hirmaachuuf fedhii qabduu?

1. Hinqaba ……. Deebiin hinqaba yoo jetti gaafii itti anutti fufi.
2. Hinqabu …… deebiin hinqabu yoo jette , galatomaa jedhiiti gaafii addaan kuti.

Fedhii qorannoo adeemsisuuf yaada namarraa kan fuudhu.

Maqaa_____

guyyaa gaafii itti gaafate ……/…../,,,,,, mallattoo…….

Hordofa isaatin mirkana'u kanmuli'isu

Maqaa……guyyaa……../……./……mallattoo…….

Annex VI. Questionnaire Afaan Oromo version

Kutaa tokkofaa , gaafilee

Lkk.	Gaafii	Filannoo deebii	Irra darbi	kodii
101	Amma umriin kessan meeqa?	_____-amataan		
102	Sadarkaa barumsaakee?	1. Hinbaranne 2. Dubbisuufi barresuu qofa. 3. Barumsa sadarkaa tokkofaa 4. Barumsa sadarkaa lammaffaa 5. Barumsa sadarkaa ol'aanaa 99. kan biraa_____		
103	Gosa kee maali?	1. Oromoo 2. Amaara 3. Tigree 99.kan biraa_____-		
104	Dalagaa kee maali?	1. Haadha manaa 2. Hojjatuu mootummaa 99. kan birraa_____-		
105	Amanttiin kee maali?	1. Musilima 2. Ortodokisii 3. Protistaantii 99. kan biraa_____-		
106	Heerumtee jirtamoo?	1. Heerume 2. Hin heerumne 99. kan birraa_____		
107	Avreejiin galii keesanii meeqa?	Qarshii_____		
108	Yeroo meqaaf ulfooyite?	1. Tokkoof 2. 2 – 4 3. > 4		

109	Galiigalatti yeroo meqaaf ulfooyite?	1. Hinulfooyine 2. 1 3. 2 – 4 4. > 4		
110	Kan ulfooyite kesaa lubbuun hagamttu dhalate?	1. Hinjiru 2. 1 3. > 2		
111	Kan ulfooyite kessa hagamtu garaa bahe?	1. Hinjiru 2. 1 3. > 2		
112	Kan ulfooyite keesa hangamtuu lubbuu malee dhalate?	1. Hinjiru 2. 1 3. > 2		

Kutaa lammaffaa gaafii hordoffii ulfaa.

	Gaafii	Filannoo deebii	Irra darbi	koodii
201	Ulfa kana itti yaadetimoo?	1. Eeyyen 2. lakki		
202	Ulfa kanaaf yeroo meeqa laallamuuf mana yaalaa dhufte?	1, 1 2, 2 - 3 3, > 4		
203	Ulfi kun kanjelqebaati?	1. Eeyyen 2. lakki		
204	Ulfa kee kanduraanitiif mana yaalatti hordoffii niqabdaa turtee?	1. Eeyyen 2. lakki	Yoo lakki jette lkk.-206- tti darbi	
205	Yeroo meeqaaf hordoffiif mana yaalaa dhaqixe?	1. 1 2. 2 3. 3 4. > 4		
206	Sababini hordoffii ulfaatii sikakkaase	1. Rakkinna fayyaati 2. Hordoffimaaf 99. kan biraa_____		

	maali?			
207	Baruumsi fayyaa yeroo hordoffiif dhuftan isinii kennamaa ture?	1. Eeyyen 2. lakki	Yoo lakki jette lkk.209-tti darbi	
208	Mataduree maal irratti barumsi fayyaa isinii kennamaa ture?	1. dhukkuba hamaa yeroo ulfaa 2. dhukkuba hamaa yeroo dhalaa 3. dhukkuba hamaa yeroo dhalaan boodaa 4. bakka itti dhaltu 5. yeroo tasa dhukkubsatte eessa demuu akka qabdu 99.kan biraa----------		
209	Ulfa duraanitiif maaf hordoffii ulfatiif mana yaalaa hindhufin?	1. beekumsa hinqabuu ture 2. waan fayyumman kiyya akka gaarii ta'eef 3. yeroo hinqabu 4. baa'ee qaalidha 5. man yaalaa waan… baa'ee narraa fagaatuufi 6. mana yaalatti yeroo baa'ee waan nagaafatuufi 7. abban mana kiyyaa naaf hinhayyamu 8. akka gaaritti nama hinkeesumessani 9. amanttiin wan waliqabateef 10. fayidaa waan hinqabneef 11. 99.kan biraa_____--		

Kutaa sadaffaa gaafii dhala irratti hundaa'ee

	Gaafilee	Filannoo debii	Irra darbi	koodii
301	Ilima kee kan dhumaa eessatti deette?	1. Manatti 2. Mana yaalatti		
302	Bakka itti deettu murteesitee turte?	1. Eeyyen 2. lakki		
303	Yoo mana yaalatti hindhin , maaliifi?	1. Nafayyada jedhee hineeyine 2. Wanta narraa fagaatuufi 3. Geejjibni hinjiru 4. Nama mucaa mana jiru naaqabu hinqabu 5. Baa'ee qaalidh 6. Akka gaaritti nama hinkesumeesani 7. Bakka deemu hinbeku ture 8. Deemuf yeroo hinqabuu ture 99. kan birra_____		
304	Dhala kana dura , dhaluudhaaf waan ufitti qopeesite qabda?	1. Eeyyen 2. lakki	Yoo lakki jette lkka306 tti darbi	
305	Dhaluudhaaf mee maal qopoyite?	1. Geejiba irratti 2. Qarshii qusachuu 3. Nama dhiiga naafkennu qopeesuu 4. Bakka itti dhalu filachuu 5. Ogeesa gahessa ta'e filachuu 99.kan biraa_____		
306	Bakka ati itti dhaltu eenuttu murteessa?	1. Ana 2. Abba warra kiyya 3. Anaafi abba warra kiyya 4. Akkoo tiyya		

		5. Warra olla 99. kan biraa		
307	Ulfaa kanaaf hoo qopoyitee jirtaa?	1. Eeyen 2. lakki		
308	Eessatti dhaluu barbaadda?	1. Mana 2. Mana fayyaatti		
309	Yoo manatti ta'e maaliifi?	1. Nafayyada jedhee hineeyine 2. Wanta narraa fagaatuufi 3. Geejjibni hinjiru 4. Nama mucaa mana jiru naaqabu hinqabu 5. Baa'ee qaalidh 6. Akka gaaritti nama hinkesumeesani 7. Bakka deemu hinbeku ture 8. Deemuf yeroo hinqabuu ture 99. kan birra_____		
310	Rakkinna yeroo manatti dhalan namarra gahu beeyita?	1. Eeyyen 2. lakki		
311	Yoo eeyyen jette, maalfa'a?	1. dhiiga gadaamessa kessa yaa'u 2. infekshinii 3. du'iinsa daa'ima.		
312	Fayidaa yeroo mana fayyatti dhalanii beeyita?	1. eeyyen 2. lakki		
313	Rakkina yeroo dhalaa namaqunnamu akka ufirra ittisan beyita?	1. Eeyyen 2. lakki		

Galatooma

Declaration

I, the undersigned, declare that this thesis is my original work, has not been presented for a degree in this or another university and that all sources of materials used for this thesis have been fully acknowledged.

Name: Mohammedawel Abduku

Signature:_____

Date: _____

This thesis work has been submitted for examination with my approval as university advisor.

Name: Dr. Tekebash Araya (PhD)

Signature: _____

Date: _____