PLACE OF DELIVERY AFTER ANTENATAL CARE UTILIZATION AND ASSOCATED FACTORS IN SHEKA ZONE MASHA WORDA, SOUTH WEST ETHIOPIA, COMMUNITY BASED CROSS SECTIONAL STUDY

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A RESEARCH THESIS TO BE SUBMITTED TO JIMMA UNIVERSITY, COLLEGE OF HEALTH SCIENCES, DEPARTMENT OF POPULATION AND FAMILY HEALTH; IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF PUBLIC HEALTH IN REPRODUCTIVE HEALTH (MPH/RH)

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JIMMA, ETHIOPIA

JIMMA UNIVERSITY

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POPULATION AND FAMILY HEALTH DEPARTMENT

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ABSTRACT

Background: In developing countries, pregnancy and childbirth are the leading causes of disability and death among women of reproductive age. Most of these causes are preventable by provision of skilled care for all women before, during, and after childbirth. Even if antenatal care **(**ANC) is a core strategy to increase SBAs, there is a great difference between ANC utilization and safe delivery service. And also there is limited studies regarding place of delivery after ANC utilization in study area as well as in Ethiopia.

Objective: The objective of this study is to assess place of delivery after antenatal care utilization and its associated factors in Masha worda Sheka Zone, SNNPR, in year 2015/2016

Methods: A community-based cross-sectional study was undertaken among 454 randomly selected women who had at least one ANC follow up and give birth one year prior the study in Masha Worda. The data were collected from Mar.25/2016 to Apr.5/ 2016. The data were checked, edited and, coded for completeness and consistency, and entered to Epi Info version 3.5.1 computer packages. Then data were exported to SPSS version 20.0 for analysis. Binary logistic regression was done to identify factors associated with place of delivery after ANC utilization. Multivariable logistic regression model were computed to identify factors associated with place of delivery after ANC utilization.

Result; A total of 454 women who had at least one ANC follow up & give birth one year prior to the survey were interviewed. Over 64 % of the deliveries take place at home and mostly without the assistance of medically trained personnel. Multivariate analysis showed that mother's educational status secondary and above (AOR= 0.146, 95% CI; 0.035, 0.602), BP&CR counseling (AOR=0.082, 95% CI; 0.031, 0.218), Privacy during ANC (AOR=0.187, 95% CI; 0.069, 0.509) were predictors of home delivery after antenatal care (ANC) utilization.

Conclusion; Home delivery after ANC utilization was high. Maternal education, privacy during ANC visit, BP&CR counseling was important predictors. Promotion of maternal education, giving privacy and respect the mothers during ANC visit and BP&CR counseling are recommended to decrease home delivery.

Keywords: Place of delivery, Antenatal Care utilization, Sheka Zone, SNNPR,

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TABLE OF CONTENTS

LIST OF TABELS

LIST OF FIGURES

ACRONYMS

ANC	Antenatal Care
AOR	Adjusted Odds Ratio
BEm ONC	Basic Emergency Obstetrics and Newborn Care
CBAW	Child Bearing Age Women
CI	Confidence Interval
DHS	Demographic and Health Survey
EDHS	Ethiopian Demographic and Health Survey
EmOC	Emergency Obstetric Care
ERB	Ethical Review Board
HC	Health Center
HD	Home Delivery
HEW	Health Extension Worker
HP	Health Post
HSDP	Health Sector Development Program
MDG	Millennium Development Goal
MMR	Maternal Mortality Ratio
PI	Principal Investigator
PMTCT	Prevention of Mother to Child Transmission
RH	Reproductive Health
SBAs	Skilled birth attendants
SD	Standard Deviation
SNNPR	Southern Nation, Nationalities and Peoples Region
TBA	Traditional Birth Attendant
UNESCO	The United Nations Educational, Scientific and Cultural Organization
VIF	Variance Inflation Factor

CHAPTER ONE; INTRODUCTION

1.1 BACKGROUND

According to World health organization (WHO), safe delivery service is one of the most important maternity care issues for women who are pregnant. It implies delivery is performed by someone with midwifery skills who is able to manage a normal delivery and who can recognize and manage obstetric complications and can refer in a timely manner. (1)

Place of delivery is a crucial factor which affects the health and wellbeing of the mother and the newborn. It's usually a joyful event when women give birth to a baby she wants. However, birth is a critical time for the health of the mother and baby. If problems may arise during labour and delivery not treated properly and effectively can lead to ill health and even death of one or both of them (2)

In Ethiopia, majority of births occur without the help of a skilled assistant and mainly at home. (3) Home deliveries are bound to be un-hygienic, unsupervised and when intervention is required it usually late and have been associated with adverse infant and maternal outcomes (4).

The highest number of maternal deaths occurs on the first day after delivery highlighting the critical need for good quality care during this period. Interestingly, a large proportion of these maternal deaths could be prevented through timely and appropriate interventions. This is why, access to Skilled Birth Attendants (SBAs) is strongly recommended for all the pregnant women so as to make sure a normal delivery is conducted well; related complications are recognized early and referred immediately to the appropriate health care facilities. Birth attended by SBAs is considered as the single most important factor in preventing maternal death. (5)

1.2 STATEMENT OF THE PROBLEM

Globally, more than 200 million women become pregnant each year and 40% are estimated to experience pregnancy-related health problems with 15% experiencing serious or long-term complications and 1.7% developing fatal complications. It has been estimated that 88–98% of these deaths are avoidable and 70% are related to five direct obstetric conditions. (6)

In Africa three quarter of maternal mortalities are due to direct obstetric causes. Moreover, in those countries institutional delivery is low and home deliveries attended by non -trained individuals and in unhygienic condition were highly in practice. (7)

There is widespread consensus that a principal effective intervention for reducing maternal mortality is the universal use of skilled birth attendants based on functioning health care facilities who are trained to diagnose obstetric complications and manage or refer them. (8)

However, the use of SBAs at health facilities varies widely among countries. As many as 99% of deliveries were attended by SBAs in developed countries compared to only 33.7% in eastern African countries (9) and the rate is much lower in Ethiopia, where institutional delivery is only 16% .Beyond this low coverage of institutional delivery in Ethiopia, there is also a great Regional disparity in maternal mortality burden; regions with higher maternal mortality burden than the national average are Somali and Afar followed by SNNP. (10)

Evidences showed that in developing regions the proportion of women who attend at least one ANC visit with a skilled provider during pregnancy increased from 64% to 81% (11). In Ethiopia, 41% of pregnant women received antenatal care from a skilled provider. Despite, with this relatively high coverage of ANC utilization, institutional delivery coverage is very low, only 16% women utilized SBAs during labour and delivery [12].

Studies conducted worldwide including Ethiopia on factors affecting place of delivery indicated that; Socio demographic factors of mother and her husband, obstetric factors, facility related factors and accessibility were showed significant association in different literature. (13-17)

Even if, institutional delivery service utilization with skilled birth attendance is one of the keys and proven interventions to reduce maternal death, most deliveries in developing countries including Ethiopia occur at home without skilled birth attendants. (11) According Mimi DHS

2014 of Ethiopia, about 41% women attend ANC at least ones and 32% of all women attend ANC four and above, but only 16% of women give birth at health facilities [12]. Over 84 % of the deliveries take place at home and mostly without the assistance of medically trained personnel. (16)

In Ethiopia, even though underutilization of the existing institutional delivery service was a major problem as a whole, the reason why those women who accessed health facility for ANC do not utilize the service is not addressed well to the extent it can help for appropriate plan of intervention at national, regional and local level. Therefore, the objective of this study was to assess the place of delivery and associated factors of place of delivery after ANC utilization in Masha Worda South West Ethiopia.

Information on why mothers choose to deliver at home after ANC is very vital for health planners, managers and relevant stake holders in order to rationally design the appropriate delivery service utilization, planning and implementation of intervention activities to improve the delivery service utilization of pregnant women in the study area, region and country level as well as it will functions as the baseline data for study area in the reduction of maternal mortality.

CHAPTER TWO; LITERATURE REVIEW

Institutional delivery service utilization is one of the key and proven interventions to reduce maternal death. It ensures safe birth, reduce both actual and potential complications and maternal death and increase the survival of most mothers and newborns. But most deliveries in developing countries occur at home without skilled birth attendants. (11)

Delivery in HFs is still challenging in developing countries in which higher number of women attend antenatal clinic but about half of them deliver at home without assistance of skilled professional. (18)

2.1 SOCIO DEMOGRAPHIC FACTORS

Socio- demographic factors and their association with place of delivery in different literatures reviled as follows; Study from Pakistan showed that institutional deliveries were significant association with mother's education, and household wealth. (19)

Another study done in our country on place of delivery after ANC utilization, showed that the Socio- demographic characteristics of the respondents, particularly occupation, & educational status, were significantly associated with place of delivery after ANC utilization; i.e. Use of home delivery among the study participants, showed that Women whose educational status was secondary and above were less likely to use home delivery than women who were illiterate AOR=0.3, 95%CI:(0.1,0.8).(15)

Similar study done in Sekela District, North West Ethiopia indicated that; age at interview, educational status, and knowledge of the mother were found to be significantly association with the institutional delivery service utilization; i.e. mothers with age group of 15– 24 years were 4 times more likely to deliver in health institutions than mothers with age group 35 and above(AOR = 4.4, 95% CI = [1.15 ,16.8), and mothers with educational level of secondary and above were about 12 times more likely to give birth in health facilities than those with primary education and below(AOR = 11.98, 95% CI = [3.46, 41.4]).(20) , Mothers who were knowledgeable on ANC and delivery services were about 3 times more likely to deliver in health institutions than mothers who were not knowledgeable (AOR = 2.97, 95% CI = [1.1, 8.6])

Also study done in Munisa Woreda, South East Ethiopia: on Institutional delivery service utilization showed that institutional delivery service utilization was significantly associated with the age, occupational & educational status of the mothers , as well as with the occupational & educational status of the husbands, and family size; i.e. Mothers less than 20 years of age during the interview were about 6 times more likely to deliver at health institutions than mothers more than 35 and above(AOR = 6.0 6, 95 %CI: 1.54, 23.78), mothers with secondary education & above were 4.3 times more likely to deliver at HFs as compared to those who were not able to read an d write. Regarding the educational status of husbands, mothers whose husband attended secondary school and above were 2.8 times (AOR = 2.77, 95%CI: 1.07, 7.1 9) more likely to deliver at health institutions as compared to mothers whose husbands were unable to read & write.(21)

Similar study which were conducted in Nigeria on factors determining the choice of a place of delivery among pregnant women indicated that factors which were strong significant association with pace of delivery are; age of the mother, educational status, marital status and income. (22)

Also in agreement with these article, study conducted in Arsi Zone on predictors of safe delivery service utilization showed that religion, husbands' attitude towards institutional delivery, and women's decision making power were significant association with utilization of safe delivery service ; women whose educational status was secondary and above secondary were 2.5 and 4.6 times more likely to utilize the service than women who were illiterate respectively(AOR=4.6 95%CI1.7, 12.8), and those women who were decision maker in their house utilized the service 8 times than those who were not decision maker. (16)

2.2 OBSTETRICS RELATED FACTORS

When we see obstetrics related factors and their association with places of deliveries; study done in our country on place of delivery after ANC utilization, showed that age at first pregnancy were significantly associated with place of delivery; those women who were pregnant before the age of 20 years were more likely to give birth at health facilities by 56% than those who were pregnant after the age of 20 years AOR=0.4, 95%CI:(0.2, 0.9). (15)

Another study done in Arsi Zone also reviled that Among obstetric histories number of parity, and age at first pregnancy had a significant association with utilization of safe delivery service; those women who have five and more children were less likely to utilize the service than those who have one child. (16)

Similar study done in Arbaminch Zuria district on Prevalence and associated factors of home delivery showed that parity of the women was important predictor for home delivery; women who have more than one live birth or multiparous women were 4 times more likely to delivery at home when compared to primiparae women(AOR=3.825 95% CI 1.795, 7.544).(23)

2.3 SERVICE UTILIZATION

Service utilization such as number of ANC visit and gestational age at first ANC visit were significant association in different literatures.

Study done in Nepal reviled that Women who have had five or more ANC visit were almost five times more likely to deliver at health facility when compared to those who paid no visit prior to delivery. (32)

Similar study done in our country, Sekela District also indicated that, ANC visit during last pregnancy was found to be a strong predictor of institutional delivery service utilization; mothers who had ANC visit during last pregnancy were 4 times more likely to deliver in health facilities than those who did not have AN C visit (AOR=17.33 95% CI 4.22, 71.29). (20)

Study done in Fogera District showed that ANC visit were significant association with place of delivery; Women who have had at least four antenatal consultations were less likely to deliver at home by 26% than women who had one antenatal visit. (15)

Another study done in Arsi Zone also reviled that Among obstetric histories prenatal visit had a significant association with utilization of safe delivery service; women who had at least one registered ANC visit were 4.5 times more likely to utilize the service than those who did not {AOR (95%CI): 4.5, (2.2, 8.9)}.(16)

Another study done in North West Ethiopia showed that ANC visit were strongly associated with Skilled birth attendant utilization; Skilled birth attendant utilization among women who had four

or more ANC visits were 17 times higher as compared to those mothers with three and lower antenatal care visits(AOR=17.33 95%CI 4.22, 71.29). (24)

2.4 HEALTH FACILITY RELATED FACTORS

Study in Fogera District showed that those women who had received better quality of antenatal care counseling were less likely to utilize home delivery by 30% as compared with women who had not received quality antenatal care counseling AOR=0.3, 95%CI :(0.2, 0.7), (15) and these study result is supported by evidence from Nigeria, indicated that reasons given by those mother who chose home delivery is unfriendly attitude of health care workers. (22)

Another qualitative study done on why do women not deliver in health facilities in Ethiopia reviled that lack of privacy was significant association with place of delivery. (29)

Receiving counseling on BP&CR during ANC appeared to be strongly influence women's use of skilled care during delivery. Regarding BP&CR, study done in Western Ethiopia showed that mother who had counseled for BP&CR during ANC visit were 7 times more likely to utilize institutional delivery than women who were not counseled. (31)

Again study done in Nepal showed that the likelihood for facility delivery increased by 3.4-fold among women who were prepared for birth and ready for complication. (32) This study finding was supported by community-based follow-up study result on missed opportunities for institutional delivery and associated factors among urban resident pregnant women from South Tigray Zone, indicated that women with no BP&CR were nearly five times more likely to deliver in their home compared to those who had already prepared and were ready for early management of complications. (26)

2.5 ACCESSIBILITY

2.5.1 ACCESSIBILITY IN-TERMS OF DISTANCE

Study from Tanzania reviled that distance from home to the nearest health care services was significantly associated with institutional delivery. Mothers who resided far from the health care facility were more likely to choose to deliver at home, as distance decreases institutional delivery increases. (33)

Similar study done on factors associated with maternal health care services, which reviled that mother who's residence takes greater than 2 hours walking time to access health facility was less likely to utilize delivery care service by 65% than health facility takes less than 2 hours walking time to access. (35)

2.5.2 ACCESSIBILITY IN-TERMS OF SERVICE COST

Cost related factors are also affect place of delivery. Study conducted in Tanzania showed that one of the reasons for non-facility delivery was cost-related factor. (35) The same is true in our country; study done in Arsi reviled that about one third women who give birth in health institution complain or reported that the service charge was too expensive.(16)

2.5.3 CONCEPTUAL FRAME WORK

Place of delivery after ANC utilization is influenced by many factors which are interrelated. Socio-demographic factors of mother and her partner's such as occupation and educational status of the mother and her husband's, and, age of the mother were significant association with place of delivery in different literatures.(13, 14, 15, 16, 17)

Obstetric factors such as number of gravida and parity, age at first pregnancy, previous history of obstetric complication are also significant association with place of delivery.

Another important factor such as perceived quality of antenatal care, Privacy during antenatal care visit, and birth preparedness and complication redness were another identified factor which associated with place of delivery.

Other significant factors were service utilization; like number of ANC visit, gestational age at first ANC visit.

And also Individual factors: like Knowledge about importance of SBA, Pregnancy risk, and danger signs of Pregnancy &labour were significant association with place of delivery in different literatures.

Therefore, the conceptual frame work in the next page is developed after reviewing different related literatures which were done in different area including our country.

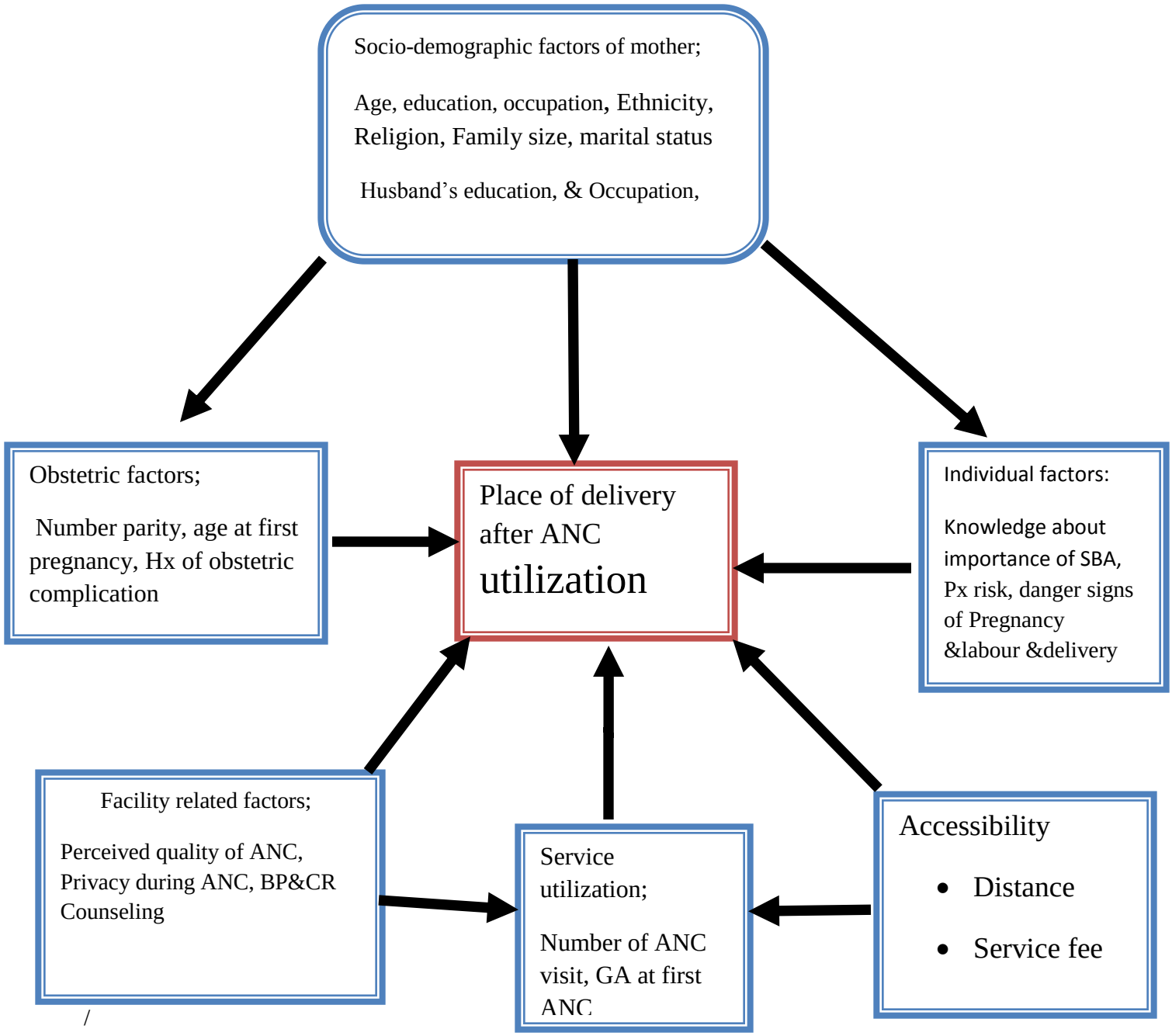

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Figure 2.1 : shows conceptual framework of place of delivery after ANC utilization in Sheka Zone, Masha Worda SNNPR Ethiopia, May 2016.

SOURCE: by reviewing different related literatures

2.3.4 SIGNIFICANT OF THE STUDY

Antenatal care from a trained provider is important to monitor pregnancy and reduce high morbidity and mortality risks for mothers and child during pregnancy and delivery and, it presents an important opportunity for identifying threats to the mother and unborn baby's health, as well as for counseling on nutrition, birth preparedness, delivery care and family planning options after birth and also inform them about pregnancy-related complications, and the advantages of skilled delivery care. Because of this, it is considered as a bridge to birth in the health facility. It is not enough to receive ANC unless if it is not prepared pregnant women for institutional delivery, since majority of the fatal complications occur during or shortly after delivery. However, in Ethiopian ANC coverage at least one visit is threefold and four and above visit is twofold higher than institution based delivery in coverage. In contrast institutional delivery is very low, only 16%. (12).

There are so many studies conducted in Ethiopia on prevalence of home delivery and associated factors, but those studies didn't include missed opportunities at the time of ANC which associated with home delivery.(23-24) Those missed opportunities at the time of ANC are; BP&CR counseling, ensuring client privacy & respecting them, counseling on pregnancy &labour danger signs. In this study, those missed opportunities at the time of ANC were included to overcome the limitation of previous studies.

Therefore, this study was undertaken to assess place of delivery after ANC utilization and associated factors in Masha Worda, South West Ethiopia. So that, the result of this study can use as baseline information for further studies in that area and to recommend possible solutions for policy makers, program managers, heath care providers, and stockholders to reduce the gap b/n ANC utilization & institutional delivery by applying appropriate interventions.

CHAPTER THREE; OBJECTIVES

3.1 GENERAL OBJECTIVE

To determine place of delivery after antenatal care utilization and its associated factors in Sheka Zone Masha worda.

3.2 SPECIFIC OBJECTIVES

To determine women's place of delivery after ANC visit in Sheka Zone Masha worda, South West Ethiopia in the year 2016

To identify factors associated with place of delivery after antenatal care utilization in Masha worda, South West Ethiopia in the year 2016.

CHAPTER FOUR; METHODOLOGY

4.1 STUDY AREA AND PERIOD

The study was conducted in Masha Woreda which is one of the 3 Woredas in Sheka zone. Sheka Zone is one of the 15 zones in SNNPR and one of the few areas with high forest cover in Ethiopia. Because of these high forest coverage and presence of special Bamboo and bamboo products the forest has registered at UNESCO Forest Biosphere Reserve Nomination Form. Local products with a potential for sustainable production and possibilities of being labeled as unique brands from the area are: Honey- wild/forest honey, Bamboo and bamboo products, Ensete- fiber/starch for industrial application, Coffee, and Fruits- avocado, mango, and banana. (36)

The Worda is located 951Kms to North West of Awassa, the capital of SNNPR and 676 kms to South west of Addis Ababa. It shares boundaries with Anderacha Worda/Sheka Zone/ in the south, Oromia Region in the west and north, and Kaffa zone in the east. The geographical coordinates are approximately 7°44′N latitude and 35°29′E longitude. The Worda has an altitude of 2700 m above sea level, and it receives high amount of rainfall, with an average of 1800–2200 mm annually. Administratively, the Worda is structured into nightline (19) rural Kebeles.

Based on Zonal population estimation of 2008 Ethiopian Fiscal Year, Masha Worda total population is estimated to be 41872 among these 21,517 (51%) are females. Child bearing age women (CBAW) make up about 9,756 (23.3%) of the population and approximately 1449(3.46%) becomes pregnant annually. The dominant ethnic group in the Worda is Shekacho and the majority of the inhabitants were Protestants, with 56.5% followed by Orthodox Christianity (32.82%).

Based on the information from the Woreda Health office, ANC first coverage of the Woreda is 51.3 % and four and above is 39%. On the other hand institutional delivery coverage of the Worda is 16.43%.

This ANC services delivered in 19 health posts and 4 health centers (HCs) which all belong to the public health system.

4.2 STUDY PERIOD; data were collected from Mar.25/2016 to Apr.5/ 2016 in Sheka Zone Masha Woreda, SNNPR.

4.3 STUDY DESIGN

A community-based cross sectional study design was conducted among mothers who gave birth in the preceding one year prior to data collection and had at least one ANC follow up. Mothers who had ANC follow up and give birth in the preceding one year prior to data collection were identified through heath center and health post ANC log book or record reviews.

4.3.1 SOURCE POPULATION

All women in a child bearing age who had at least one ANC follow up and gave birth one year prior to the survey in Sheka Zone Masha Worda.

4.3.2 STUDY POPULATION

Randomly selected women in a child bearing age from selected Kebeles, who had at least one ANC follow up and gave birth in the last one year preceding the study period in Sheka Zone Masha Worda was study population.

4.4 INCLUSION AND EXCLUSION CRITERIA

4.4 1 INCLUSION CRITERIA

All women who had at least one ANC follow up and gave birth in the last one year preceding the study period.

- Who lived at least six month in the study Kebeles.

4.4 .2 EXCLUSION CRITERIA

- Women who were critically sick and unable to respond.

4.5 SAMPLE SIZE DETERMINATION AND SAMPLING PROCEDURE

The sample size was determined using single population proportion formula,

$$n = \frac{(Z\alpha/2)^2 (pq)}{d^2}$$

Where P=proportion of home delivery in rural women after ANC utilization taken from a study in Fogera district, Amhara region (83.9 %)(15) , Z α/2 at 95% CI (1.96) and d=5%marrgin of error (0.05)

$$n = \frac{(1.96)^2 * 0.84 * 0.16}{(0.05)(0.05)} = 206.5$$

By considering 10% non-response rate and 2 as a design effect, the final sample size was 454

4.5.2 SAMPLING TECHNIQUE

The Worda has 19 kebeles, from those 50% of the kebele were selected by Simple random sampling technique. 10 Kebeles were included in the study. Women who give birth one year prior to the study period and had at least one ANC follow up was identified through 2 heath center and 10 health post ANC log book (record review) prior to the data collection in randomly selected Kebeles (two H/C and 10 health posts are found in selected 10 Kebeles).

After identifying eligible participants by document review, total 454 Sample size were allocated to all randomly selected Kebeles proportionately based on number of women in each sampled Kebeles and the study Participants were selected by simple random sampling technique. See fig.

SCHEMATIC PRESENTATION OF SAMPLING TECHNIQUE

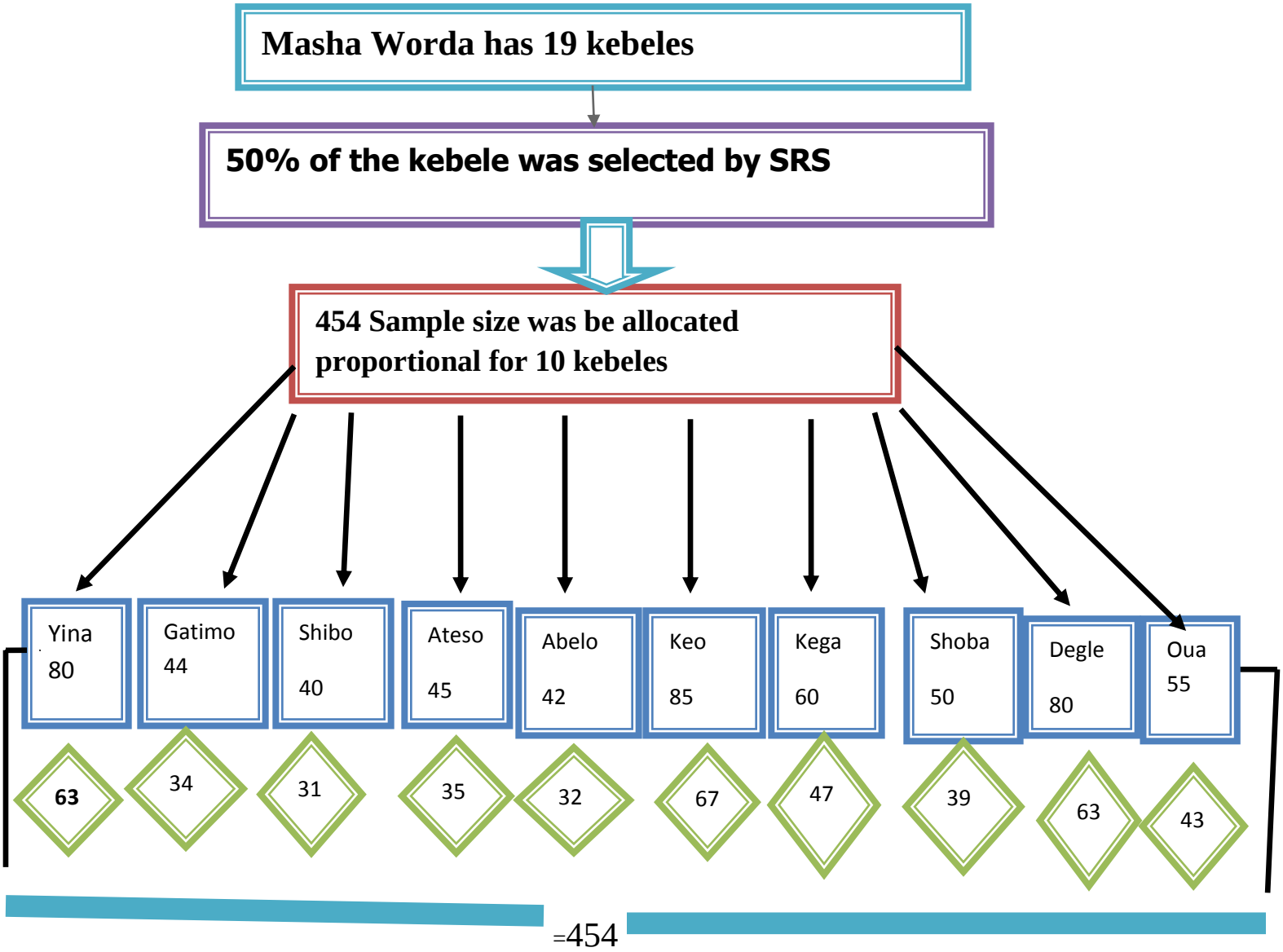

Figure 2 Shows Schematic presentation of sampling technique on place of delivery in Sheka zone Masha Worda SNNPR Ethiopia, May ,2016

Among 581 eligible mothers, 454 study participants were selected by SRS

4.6 DATA COLLECTION INSTRUMENT AND PROCEDURE

4.6.1 DATA COLLECTION INSTRUMENT

Data were collected in a face to face interview by using a pre-tested semi-structured questionnaire adapted from previous related studies (13, 14, 15, 16) that was initially prepared in English and then translated into Amharic to collect the data and was re-translated back to English by another language expert to ensure consistency. Pre-test was conducted on 5% of the total sample size which was outside the survey area before the study period. The questionnaire was pre tested on 23 eligible women in neighboring kebele. Findings were discussed among data collectors and supervisors. The final interview was conducted at participant's home at convenient time and place arranged by the data collectors and the women.

4.6.2 DATA COLLECTORS

Data collectors were 10 students who completed grade 10 and are fluent speaker of the local language and from those randomly selected kebeles and three BSC nurse supervisors were recruited. Training was given for three days on the objective of the study, method of data collection, interview techniques and procedures for data collectors and supervisors.

4.6.3 DATA COLLECTION PROCEDURE

Name of the study participants selected for the study were given for data collectors and supervisors assigned for Kebeles (Name of the study participants taken from HEWs according record review finding). Since data collectors were from selected kebeles, they know specific area of the respondents based on given mothers' name.

Data were obtained from sampled women who give birth one year prior the survey and had at least one ANC follow up by direct face to face interviewing at their home. The completeness of questioner was checked every day by the supervisors and principal investigator.

4.7 VARIABLES

4.7.1 DEPENDENT VARIABLE

Place of delivery after ANC utilization

4.7.2 INDEPENDENT VARIABLES

I. **Socio demographic factors of mother**: Maternal age, ethnicity, religion, level of education, occupation, marital status, family size, husband's education , husband's occupation

II. **Obstetrics related factors of mother/history**: age at first pregnancy ,number of parity, Pregnancy status; planned V unplanned, Presence of pervious Obstetric complication

III. **Service utilization**: Gestational age at first ANC, number ANC visit

IV. **Facility related factors** : Perceived quality of ANC service , birth preparedness and complication redness counseling, Privacy during ANC visit, Wetting time for ANC service

V. **Individual factors:** Knowledge about importance of SBA, knowledge about danger signs of pregnancy , knowledge about danger signs labour, knowledge about pregnancy risk , Knowledge about risks of home delivery

VI. **Accessibility factors**: Distance of health institution from mother's home, service fee (either for ANC or delivery service)

4.8 DATA PROCESSING AND ANALYSIS

Data were checked, edited, coded for completeness and consistency, and entered to Epi Info version 3.5.1 computer packages. Then data were exported to SPSS version 20.0 for analysis. Descriptive analysis was used to compute frequencies and percentage. Binary logistic regression was done to identify factors associated with place of delivery after ANC utilization. All variables that have significant association in the binary logistic regression (p-value< 0.25) were entered into the model. Multivariable logistic regression model were done to identify factors associated

with place of delivery after ANC utilization. Finally significant statistical association was declared by using adjusted odds ratio, and 95% confidence intervals.

4.9 DATA QUALITY ASSURANCE

Data quality was ensured before data collection, during data collection, coding, entry and analysis. Before data collection pre-testing the questionnaire and adequate training was provided to data collectors and supervisors. During data collection, adequate follow up and supervision were provided to data collectors by PI and supervisors. The filled questionnaires were checked for completeness, accuracy, and consistency by supervisors & principal investigator after the data collection on daily base. Consequently, any problems encountered were discussed among the survey team and solved immediately. Double entry verification was employed to assure quality of data. The questionnaire were prepared first in English and translated into Amaharic language and retranslated back to English by other person to check for consistency. The questionnaire was pre-tested on 5% of the sample size other than the sampled kebele in the Worda before data collection period, which were not included in the main data analysis to identify the clarity of question, sequence of questions, and gap on data collector and also to familiarize the data collectors with instruments.

4.10 ETHICAL CONSIDERATION

Ethical clearance was obtained from Institutional Review Board (IRB) of Jimma University College of Public Health and Medical Sciences. Informed consent was obtained at different levels; Official cooperation letter was obtained from Sheka Zone Health Department and Masha Woreda health office to randomly selected kebeles. During the data collection the utmost efforts were made to maintain privacy and confidentiality. To maintain privacy, individual interview was made in separate place near to their home.

4.11 DISSEMINATION PLAN

The findings of this study will be presented to JU, distributed to Sheka Zone Health Department, Masha Worda health office and other organizations who are working in maternal health services in Sheka Zone. The findings may also be presented in different seminars, meetings and workshops and publication in scientific journals will be attempted.

4.12 OPERATIONAL DEFINITION AND DEFINITION OF TERMS

- **Place of delivery after ANC utilization**: the place where the women gave birth after attending ANC service at least once (either home or health facility)
- **Antenatal care (ANC)**; a care given to pregnant mothers by health professional at heath institution
- **Home delivery**: delivery took place at locations other than health facility with or without assistance of a trained professional.
- **Institutional delivery**: delivery took place at health facilities and attended by health professionals
- **Skilled care refers;** to the care provided to a woman and her newborn during pregnancy, childbirth and immediately after birth by an accredited and competent health care provider who has at her/his disposal the necessary equipment and the support of a functioning health system, including transport and referral facilities for emergency obstetric care.
- A **skilled attendant**; is an accredited health professional such as a midwife, doctor or nurse who has been educated and trained to proficiency in the skills needed to manage normal (uncomplicated) pregnancies, childbirth and the immediate postnatal period and in the identification, management and referral of complications in women and newborns. (WHO, 2004).
- **Safe Delivery**: delivery where the attendant monitors progress of labor to avoid and manage complications those endanger the wellbeing of both the mother and newborn.
- **Safe delivery service utilization**: Giving birth at a setup where safe delivery service is being provided, most of the time at health facilities
- **Knowledgeable:** women were considered knowledgeable about danger signs related to pregnancy and childbirth if they scored above the mean of 11 knowledge questions and not knowledgeable if otherwise.

(6 questions are yes/no type and 5 with more than 3 choses; for yes/no question yes=1, no=0, and for multiple choses; for example if the question contains 3 alternative answers and the respondents answers 2correct answer she got 2 out of 3 finally all knowledge questions were computed and who score greater than or equal to the mean score of knowledge questions were considered as knowledgeable and below the mean were not knowledgeable)

- **Previous bad outcome;** obstetric history of previous still birth and spontaneous abortion.
- **HFs;** includes health post, health center &hospital

CHAPTER FIVE; RESULTS

A total of 454 women who had at least one ANC visit for their last pregnancy and given birth in the preceding one year before the survey were interviewed.

5.1 SOCIO-DEMOGRAPHIC CHARACTERISTICS OF THE RESPONDENTS

Out of the total respondents 148 (32.6%) were in the age group 25 – 29 years with mean & ± (SD) of 27± (6) yes, 342(75.3%) were Protestant Christians and 108 (23.8%) were orthodox Christians by their religion, 413(91%) were married, 92.3% belong to Shekacho ethnic group.

Regarding their educational status, more than half, 52.4% of the women have never attended any formal education and only 14.3% were secondary and above. Concerning their occupation majority of the women 428(94.3) were housewives.

With regard to the characteristics of family size of the respondents 64.8% do have five up to nine regular dwellers per HH with mean of 5.7 dwellers per house hold. Regarding monthly family income, majority 69.2% were earned below 500 ETB. The details of selected socio demographic characteristics are summarized in Table5.1.

Table 5.1 ; Socio demographic characteristics of the respondents, Sheka Zone, Masha Worda, SNNPR Ethiopia May 2016 (n=454)

VARIABLES	FREQUENCY (%)
Age at interview	
15-19	28(6.2)
20-24	112(24.7)
25-29	148(32.6)
30-34	84(18.5)
≥35	82(18.1)
Mother's religion	
Protestant	342(75.3)
Orthodox Christian	108(23.8)
Muslim	4(0.9)
Marital status of the mother	
Currently married	413(91)
Divorced	13(2.9)
Widowed	6(1.3)
Single	22(4.8)
Ethnic group	
Shekacho	419(92.3)
Kafecho	15(3.3)
Amhara	15(3.3)
Oromo	5(1.1)
Mother's occupation	
House wife	428(94.3)
Government employ	13(2.9)
Merchant	13(2.9)

VARIABLES	FREQUENCY (%)
Educational status of the mother	
Informal education	105(23.1)
read and write	133(29.3)
primary school	151(33.3)
secondary and above	65 (14.3)
Educational status of the husband	
Informal education	36(7.9)
read and write	129(28.4)
primary school	147(32.4)
secondary and above	103(22.7)

5.2 Obstetric characteristics of the respondents

The majority, 373(82.2%) of the women were age below 20yrs during their first pregnancy with mean + (SD) 18.05 (1.7) yrs. Regarding their parity 93 (20.5%) of the women had been give birth only once and166 (36.6%) five and above in their life. The mean party of the women (mean, SD) was 3.64±2.08 per woman. One hundred eight nine (41.6 %) of the women reported that their last pregnancy was unplanned. Thirty-one (6.8%) women had encountered at least one danger signs of labour during their recent birth of whom 15 (48.3%) had prolonged labor.

Regarding maternal health service utilization, majority; the majority of the respondents386 (85%) lived within two hour walking distance of HF from their home. Concerning mode of transportation 359(79%) on foot. 341 (75.1%) women attended ANC Two and more visit during their last pregnancy**.** Two hundred seventy (59.5%) of women received first ANC in their second trimester of pregnancy, out of all women who attended ANC, 164 (36.1%) have made four and above visits. Of all women who visited H/F for ANC service, 248(54.6%) reported that they received health education on danger signs related to pregnancy and labour, and also 54.6%

women were counseled on birth preparedness and complication readiness (BP&CR) plan. Among those women who counseled on BP&CR plan only 87(19.2%) were counseled together with their partners. Out of the studied subject's 94.7% women vaccinated TT vaccine, from those 59.9% received TT two during their last pregnancy, 152(33.5%) received Iron supplement and only 20(4.4%) women were tested for STI. Regarding waiting time to get ANC services during ANC visit, 197(43.4%) women complain that they wait for long time.

Only 160(35.2%) of mothers gave birth in the health facilities and majority of women 294(64.8%) delivered at home their recent child. Different reasons were mentioned for home delivery. The most commonly raised reason for home delivery was short duration of labor 83(28.3%), perception of home delivery was normal 82(27.8%), long distances 79(26.9%), and perceived poor quality of health service 50(17.7%). (Table 5.2)

Table 5.2; Obstetrics characteristics of the respondents, Sheka Zone, Masha Worda SNNPR Ethiopia, May 2016 (n=454)

VARIABLES	FREQUENCY (%)
Age at first pregnancy	
Mean 18.05	
15-19	373(82.2)
20-24	80(17.6)
≥25	1(0.2
Birth order /parity	
1	93(20.5)
2 - 4	195(43.0)
≥5	166(36.6)
Previous bad outcome	
Yes	24(5.3)
No	430(94.7)
place of delivery	
H/F	160(35.2)
Home	294(64.8)
Gestational age at first ANC	
1 st trimester	86(18.9)
2nd trimester	270(59.5)
3rd trimester	98(21.6)
No of ANC	
Only 1	113(24.9)
2-3	177(39.0)
≥4	164(36.1)
Ever had abortion	
Yes	69(15.2)
No	385(84.8)

As shown in Fig. 5.2 Out of 294 (64.76%) mothers who delivered at home their recent child, 88(29.9%), 100(34%), 70(23.86%) delivery was attended by TBA, relatives, and HEWs respectively and the rest 36 (12.24%) was unattended.

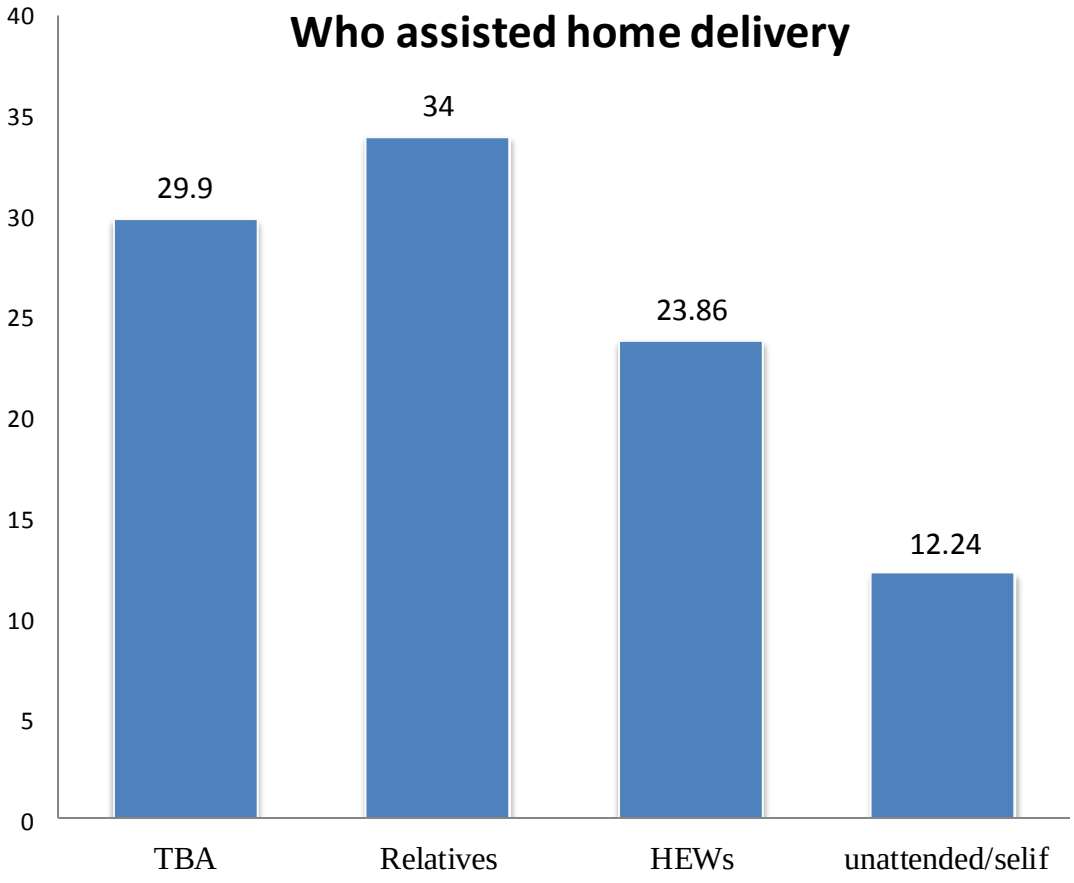

Figure 5.3; Attendants of home delivery, in Sheka zone Masha Worda, SNNPR Ethiopia March, 2016

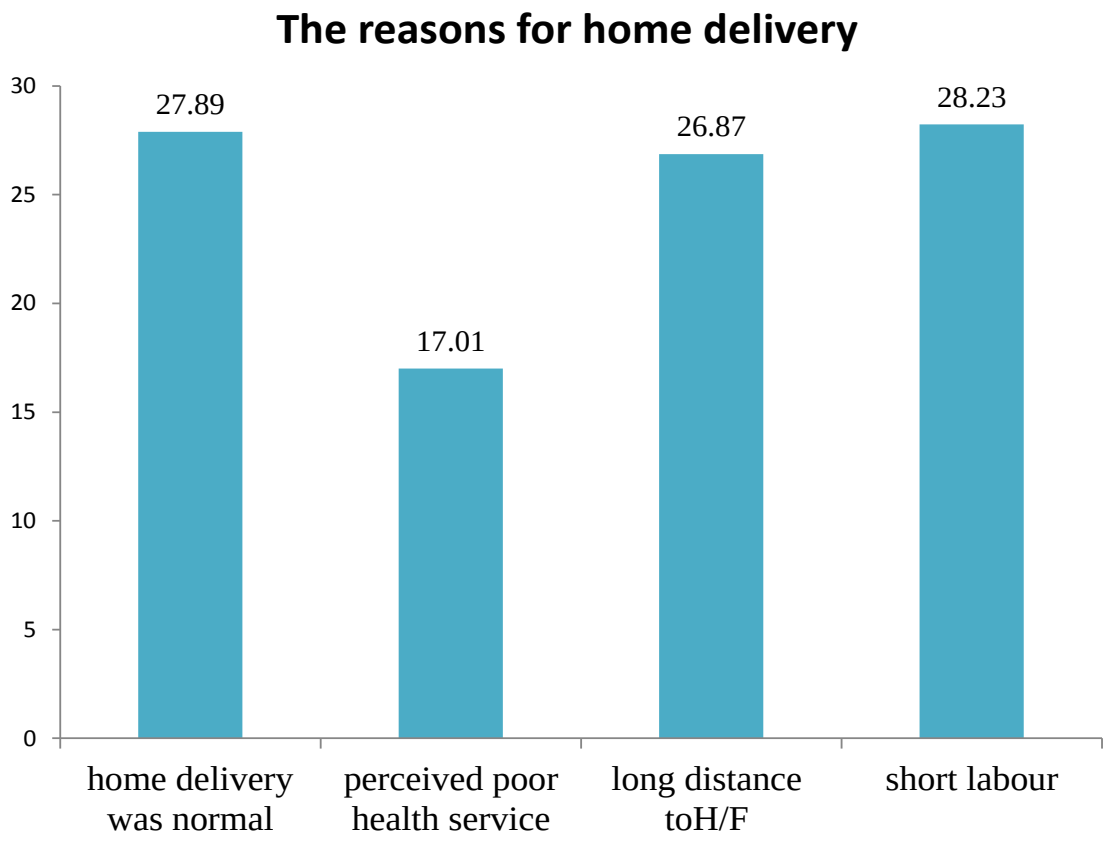

Figure 5.4; the reasons for home delivery Sheka Zone, Masha Worda SNNPR, Ethiopia, May 2016

5.3 Perceived Quality of ANC Service

Regarding perception of the quality of ANC service 317(69.8%) respondents perceived as the quality is good and the rest 137(30.2%) reported that the quality is not good. One hundred eight four (40.5%) women reported that they were not given privacy during antenatal care examination, 206(45.4%) were not counseled on BP&CR, 206(45.4%) mothers said that the provider was not mentioned danger signs of pregnancy and labour,10% did not receive an explanation about their health status in their last pregnancy.

5.4 Knowledge on danger signs related to pregnancy and childbirth

Regarding knowledge on danger signs related to pregnancy and child birth, risks of home delivery and benefits of institutional delivery, 219(48.2%) of the study participants had good knowledge. Majority of the respondents 323 (71%) knew risks of home delivery. Of these 296(91.6%), 260(80%), 237(73.3%), 179(55.4) said maternal death, fetal/neonatal death, fetal distress, maternal exhaustion respectively. And also 81.7% respondents knew benefits of giving birth at health facility. One hundred fifty six, 34.3% of the respondents named correctly at least one of the accepted danger signs related to pregnancy and 222(48.8%) of the respondents named correctly at least one of the accepted danger signs related labour and child birth. The most commonly mentioned danger signs related to pregnancy were Vaginal bleeding 129(82.6%) followed by reduced/absence of fetal movement74 (47.4%).The major source of information were health care providers and health extension workers, 87(19.2%) 68(15%) respectively. See table 5.3 for details

Table 5.3 ; Respondent's knowledge on danger signs related to pregnancy, and labor, Sheka Zone Masha Worda, SNNPR, Ethiopia, May 2016

VARIABLES	FREQUENCIES (%)
Mother's awareness about health risk a women experience during pregnancy	
Pregnancy related disease	55(49.5)
Maternal death	93(83.7)
Fetal death	93(83.7)
Knowledge on danger signs related to labour	
Prolonged labour >12 hrs	137(61.7)
Early rapture of membrane	151(68)
Vaginal bleeding	156(70)
Placental retention>12 hrs	78(35)
increased blood pressure	52(23)
Convulsion	53(23.8)
Knowledge on risk of home delivery	
Maternal exhaustion	179(55.4)
Fetal distress	237(73.3)
Maternal death	296(91.6)
Fetal/neonatal death	260(80)
Disease transmission from attendants	38(11.7)
Exposure to HTPs	33(10.2)
Knowledge on benefits of giving birth at HFs	
Early detection of problems	249(67)
Timely Rx of problems	296(79.7)
Better new born care	271(73)
HTPs can be avoided	77(20.7)
Over all knowledge on danger signs related to pregnancy and child birth	
Not knowledgeable	235(51.8%)
Knowledgeable	219(48.2%)

5.5 Factors associated with Place of Delivery after ANC utilization

Logistic regression model was done to identify factors associated with place of delivery. Adjusted odds ratio with 95 %CI was calculated for each of independent variables using backward stepwise binary logistic regression model to control cofounding variables. Finally those variables in final model with p-value <0.05 were declared as predictor variables by using adjusted odds ratio, and 95% confidence intervals (Table5.4).

Crude analysis of socio-demographic variables on binary logistic regression showed that maternal age, occupation, educational status of the mother and her husband, and family size were all candidate variables for multivariate analysis at p<0.25. On the other hand marital status, ethnic group, and religion of the respondents did not show statistical association with place of delivery.

Among the obstetric variables, number of parity, number of ANC visit, encountered pregnancy danger signs, gestational age at first ANC visit, age at first pregnancy, pregnancy plan, and number of abortion were candidate variables for multivariate analysis at p<0.25.. Moreover, maternal knowledge on danger signs related to pregnancy and labor, distance of service area, BP&CR counseling, privacy during ANC visit, mother's confidence on service and informed for pregnancy and labor danger signs during ANC were candidate variables for multivariate analysis at p<0.25.

In the final model; age of the mother, educational status of the mother and her husband, BP&CR counseling during ANC, number of parity, number of ANC visit, and privacy during ANC visit were significantly associated with home delivery at p value < 0.05(AOR & their CI were presented below).

The study finding showed that women whose age ≥30 years old were 4 times more likely to use home delivery than those age 15-19years (AOR =4.311, 95% CI 1.922, 9.232).

More educated mothers were less likely to deliver at home. Women who completed secondary and above school were less likely to choose home as place of delivery than those who were illiterate (AOR=0.146, 95%CI: 0.035, 0.602). Husband education is other important predictors of home delivery; women whose husband education secondary and above were less likely to use home delivery as compared to their counter parts (AOR=0.085, 95%CI: 0.030, 0.243)

The other strong predictors of home delivery was birth preparedness &complication readiness (BP&CR) counseling, women who were counseled for BP&CR during ANC visit were less likely to use home delivery than those who were not counseled (AOR=0.082, 95% CI 0.031, 0.218).

Number of ANC visit was another factor that associated with place of delivery. Women who have had four and above antenatal consultations were less likely to use home delivery than those who had only one ANC visit (AOR =0.005, 95% CI 0.001, 0.051).

The other predictor was privacy and respect during antenatal care visit, women who were given privacy during ANC visit were less likely to use home delivery than those who were not given privacy (AOR =0.187, 95% CI 0.069,0.509). Other important predictors of home delivery was number of parity; women with Para five and above were 4 times more likely to use home delivery as compared with Para one mothers. (OR= 4.0, 95%CI 1.015, 16.165). (See table 5.4)

Table; 5.4 Predictors of home delivery Masha Worda SNNPR, Ethiopia May, 2016

Variables	Place of delivery		Crude OR95% CI	Adjusted OR 95% CI
	Home (n=294)	HF (n=160)		
Current age				
15-19	6	22	1.00	1.00
20-24	29	83	1.28(0.473,3.47)	3.66 (1.60,10.35)
25-29	113	35	11.83(4.44,31.51)	2.17(1.007,11.18)
>=30	146	20	26.76(9.68,73.96)	4.311(1.922,9.232)*
Mothers education				
Illiterate	96	9	1.00	1.00
Read & write	114	19	0.562(0.243,1.3)	1.4(0.33, 5.5)
Primary school	82	69	0.11(0.052,0.237)	0.63(0.234,1.72)
Secondary and above	2	63	0.003(0.001,0.014)	0.14(0.035,0.602)*
Husbands' education				
Illiterate	59	16	1.00	1.00
Read & write	113	16	0.64(0.176,2.33)	0.7(0.14,3.6)
Primary school	105	42	0.22(0.066,0.78)	0.7(0.19,3.1)
Secondary and above	17	86	0.018(0.005,0.065)	0.085(0.030,0.243)*
No of ANC visits				
Once only	110	3	1.00	1.00
2-3 times	141	36	0.107(0.032,0.356)	0.065(0.001,0.094)
Four and above	43	121	0.01(0.003,0.032)	0.005(0.001,0.051)*
Parity				
1	24	69	1.00	
1-4	118	77	4.4(2.55,7.6)	1.4(0.39,5.44)
>=5	152	14	31.2(15.22,63.99)	4.0(1.01,16.165)*
Privacy during ANC				
Yes	12 1	148	0.057(0.030,0.107)	0.187(0.069,0.509)*
No	172	12	1.00	1.00
BP&CR counseling				
Yes	99	149	0.037(0.019,0.072)	0.082(0.031,0.218)*
No	195	11	1.00	1.00

CHAPTER SIX; DISCUSSION

This study has attempted to identify factors affecting place of delivery after ANC utilization in Masha Worda, SNNPR. Consequently, factors influencing institutional delivery service utilization after ANC visit among study participants in the Worda were identified.

The study showed that, large majority 294(64.8%) women give birth at home and cared by TBAs, relatives and HEWs after visiting HFs for ANC. This finding is consistent with studies conducted in Fogera district Amhara region, in which the proportion of home delivery was 68.4% and Agarfa Town of Bale Zone, the proportion of home delivery was 68.6% (15, 25). However, it is higher than Ethiopia Mini Demographic and Health Survey 2014 report and other studies conducted in Arsi zone, Skela district, and Arbaminch Zuria district (12, 16, 20, 23). In which the proportion of home delivery was 84%, 84% , 87.9%, and 79.4% respectively

This discrepancy could be due to the time gap between these studies, difference in study settings and there might have been improvements in accessibility and utilization of health institution delivery service.

With regard to reasons for preferring home delivery, smooth and short labor duration, perception of home delivery was normal, long distance, and perceived poor quality of health service. Similar reasons were raised in studies conducted in Fogera district, sekela district,& munisa woreda in our country. (15, 20, 21)

The identified predictors of home delivery utilization after ANC visit in this study includes; age of the mother, educational status of the mother and her husband, number of ANC visit, parity, birth preparedness & complication redness counseling during ANC visit, and privacy during ANC visit.

This study revealed that education is an independent predictor of place of delivery after ANC utilization. Women who completed at least secondary school were less likely to give birth at home as compared to uneducated mothers. The finding is consistent with study done in Fogera district Amhara region, Arsi zone, Haramaya Woreda, and Sekela District, (13-17, 20, 21, 22,). The possible explanation for this is women who are educated might have access to information,

better knowledge on services, access and control over resources and thus might better use health facility for delivery.

Mothers whose husband had completed secondary and above school were less likely to give birth at home as compared to their counter parts. This might be due to the fact that education leads to better health awareness and this may sensitize the family to decide and utilize health care service at various facilities, which was in line with study done in Munisa Woreda, Goba Worda, and Haramaya Woreda (14, 17, 21).

Mothers whose age ≥30 were 4 times more likely to use home delivery than those age 15-19years. The possible explanations might be older women consider that giving birth at home is not risky as they have previously experienced birth there. This finding is consistent with the study done sekela district. (20).

Consistent with studies conducted in; Arsi zone, Haramaya Woreda, and Arbaminch Zuria district number of parity was found to be an independent determinant for home delivery (16, 17, 23, 31). The current study has revealed that as the number of parity increases the chance of giving birth at health institution decreased (AOR =0.187, 95% CI 0.069, 0.509). A possible explanation for this could be women with more children perceive delivery as a normal process and develop confidence to give birth at home.

Number of antenatal care visit was another predictor of home delivery. Women who have had at least four antenatal consultations were less likely to choose home as place of delivery than those who had only one ANC visit ((AOR =0.005, 95% CI 0.001, 0.051). This was similar with studies conducted in Haramaya Woreda, Fogera district, sekela district and North West Ethiopia (15, 17, 20, 24, 32). This might be due to the fact that as the number of antenatal care visits increases, women will be familiar with basic information on pregnancy and delivery related risks that require skilled providers' assistance.

Receiving counseling on birth preparedness and complication redness during antenatal care appeared to be strongly influence women's to use health institution as place of delivery, those who were counseled on BP&CR during ANC were less likely to choose home as place of delivery as compared with those who were not counseled((AOR=0.082, 95% CI; 0.031, 0.218),

This finding is in line with the studies conducted in Goba Worda, Fogera district, and South Tigray Zone (14,15, 26, 32). This could be explained by good birth preparedness and complication redness counseling during ANC visit being considered as an intervention fostering preventive behavior and influencing other socioeconomic and cultural barriers, thus encouraging the use of health facilities as place of delivery.

The other factors found to encourage health institution as place of delivery was keeping their privacy and respecting mothers during ANC visit. Women who were given privacy and respected during antenatal care visit were less likely to use home as place of delivery than women who were not given privacy (AOR =0.187, 95% CI 0.069, 0.509). This finding is in line with the studies done in Nigeria, which indicated that reasons given by those mothers who chose home delivery is unfriendly attitude of health care workers. And also consistent with study done in Fogra district, Haramaya district,, Dodota district and qualitative study done in south central Ethiopia (15,17,22,29,30).

Unlike studies done three districts of Tanzania (33, 34), in this study distance was not an independent predictor of place of delivery. It showed significant association in crude analyses but did not show independently after adjusting for other variables. So the association might be confounded by other variables.

In the current study, maternal knowledge on pregnancy and labor warning signs were not independent predictors of institutional delivery service utilization, but a study conducted in sekela district indicated that mothers who were knowledgeable on pregnancy and delivery related complications were more likely to deliver in health institutions than mothers who were not knowledgeable (20). This might imply that mothers who are able to recognize danger signs could have greater fear of the possible outcomes of the signs so that they would be encouraged to deliver at HFs. In this study, of those 31 encountered the danger signs majority28 (90%) were taken to HFs to consult health professionals. The association between maternal knowledge on danger signs might be confounded by their education. It is obvious that more educated mothers tend to have better awareness on warning signs of pregnancy and labor.

Generally this study finding indicated that, ANC service alone does not decrease home delivery. Because as finding showed that there are so many missed opportunities encountered during ANC visit. These missed opportunities were significantly associated with home delivery.

Among those missed opportunities; counseling on BP&CR plan (AOR=0.082, 95% CI; 0.031, 0.218)), keeping client privacy(AOR=0.187, 95% CI; 0.069, 0.509), giving information about pregnancy and labour danger signs and also informing about return ANC visit were significantly associated with place of delivery in this study. In addition to this perceived poor quality of health service & long distance are mentioned as a reason for home delivery. So that the gap b/n ANC utilization and institutional delivery service utilization would be minimalized by proper ANC counseling ,keeping client privacy and by providing information on pregnancy and labour danger sign during ANC visit and also by giving awareness for communities about risks of home delivery and advantage of SBAs during delivery.

6. 1Strengths and Limitations of the study

6.1.2 Strengths

- Data collectors being non health professional reduce manipulation of the respondents' response since they are not responsible about the limitations which were raised by the respondent about health care service and health care providers

6.1.2 Limitations

- Even though the respondents were asked for the most recent birth, there could be recall bias since the women were asked for events which were passed.
- Facility related factors were measured by client response (based on client perception).

CHAPTER SEVEN; CONCLUSIONS

As this study revealed that, institutional delivery service utilization after antenatal care was very low (35.3%). Over 64 % of the deliveries take place at home and mostly without the assistance of medically trained personnel. Those home deliveries were attended by TBA, relatives, and HEWs. The most commonly raised reason for home delivery was short duration of labor, perception of home delivery was normal, long distances, and perceived poor quality of health service.

The predominant factors associated with place of delivery after ANC visit identified by this study were; educational status of the women and her husband, number of parity, BP&CR counseling, privacy and respect during antenatal care examination, and number of antenatal care were significantly associated with place of delivery.

CHAPTER EIGHT; RECOMMENDATIONS

Based on the above finding of the study the following Recommendations were made:

- For health care providers use ANC visits as an opportunity to counsel the mother about;-

  BP&CR counseling

  Ensure client privacy and respect them during ANC visit

  Antenatal care should be promoted and linked with delivery care

  Information should be given for the mothers about the importance SBAs at every child birth and safe delivery place and also about danger signs of pregnancy and labour during ANC visit.

- To local health sector officials

  In service training on Client-provider communication (women friendly care) and counseling skill should be given for health professionals

  In service training on implementing all components of the Focused Antenatal Care Model should be given for health professionals

  The Worda health office and other responsible bodies should make efforts to increase community awareness on risks of home delivery

- **To researchers**

  Further research should be conducted on:

  Quality of ANC services, Qualitative research on client- provider interactions

- **For government;** the accessibility issue should be addressed by local or regional governments, since one of the reasons for home delivery was long distance.

Reference

1) World Health Organization (WHO). The World Health Report 2005: Make every mother and child count. WHO 2005.
2) Sohail A, Thomas WC. Determinants of institutional delivery in rural Jhang, Pakistan. Agha and Carton International Journal for Equity in Health 2011.10: 31.
3) World Health Organization. Maternal mortality in 2005: Estimates developed by WHO, UNICEF, UNFPA, and the World Bank. World Health Organization 2007.
4) Hill K, Thomas K, AbouZahr C, Say L, Inoue M, Suzuki E, Craig H. Estimates of maternal mortality worldwide between 1990 and 2005. Lancet 2007, 370:1311 –1319
5) Islam N, Islam M.T, Yoshimura Y. practices and determinants of delivery by skilled birth attendants in Bangladesh. Reproductive Health 2014; 11:86 http://www.reproductive-health journal.com/content/11/1/86
6) Yanagisawa S, Oum S, Wakai S. Determinants of skilled birth attendance in rural Cambodia. Tropical Medicine and International Health 2006,11(2),238–251
7) Central Statistical Agency [Ethiopia], ICF International. Ethiopia Demographic and Health Survey 2011. Central Statistical Agency and ICF International 2012.
8) World health Organization. Making Pregnancy Safer: The Critical Role of the Skilled Attendant: A Joint Statement by WHO, ICM, and FIGO. World Health Organization 2004.
9) Adegoke A, Broek N. skilled birth attendance-lessons learnt. BJOG 2009:116: 33–40.
10) UNFPA, WHO. Trends in Maternal Health in Ethiopia: In-depth Analysis of the EDHS 2000-2011. UNFPA 2012.
11) WHO, UNICEF, UNFPA and World Bank. Trends in Maternal Mortality: 1990 to 2010. Geneva 27, Switzerland: World Health Organization; 2012.
12) Central Statistical Agency [Ethiopia]. Ethiopia Mini Demographic and Health Survey 2014. Central Statistical Agency 2014.
13) Abebe F, Berhane Y, Girma B. Factors associated with home delivery in Bahirdar, Ethiopia: A case control study. Biomed central Research Notes 2012, 5:653.

14) Bogale D, Markos D. Institutional Delivery Service Utilization and Associated Factors among Child Bearing Age Women in Goba Woreda, Ethiopia. Journal of Gynecology and Obstetrics 2014, 2(4): 63-70

15) Desalegn E, Mekonnen A, Abeje G. Place of Delivery after Antenatal Care: the Case of Fogera District, Amhara Region, North West, Ethiopia; 2013. Journal of Gynecology and Obstetrics 2014, 2(1);1-6. doi: 10.11648/j.jgo.20140201.11

16) Abera M, Gebremariam A, Belachew T. Predictors of safe delivery service utilization in Arsi Zone, South-East Ethiopia. *Ethiop J Health Sci* 2011. Special issue. 101 -113.

17) Mezmur H, Desalegn D, Semahegn A. Factors Affecting Choice of Delivery Place among Women in Haramaya Woreda, Oromia Regional State, Eastern Ethiopia. THE PHARMA INNOVATION Journal 2013,2(10);60-59 , Online Available at www.thepharmajournal.com

18) Fact Sheet: The Safe Motherhood Initiative. Family Care International (FCI), Safe Motherhood Inter Agency Group (IAG) 2002. www.safemotherhood.org/facts_and_figures/initiative.htmfigures/initiative.htm

19) Agha S, Carton WT. Determinants of institutional delivery in rural Jhang, Pakistan. International Journal for Equity in Health 2011, 10:31.

20) Shimeka A, Mazenga F, Meseret S. Institutional delivery service utilization and associated factors among mothers who gave birth in the last 12 months in Sekela District, North West of Ethiopia: A commun ity based cross sectional study. BMC Pregnancy and Childbirth 2012, 12:74.

21) Amano A, Gebeyehu A, Birhanu Z. Institutional delivery service utilization in Munisa Woreda, South East Ethiopia. BMC Pregnancy and Childbirth 2012, 12:105 http://www.biomedcentral.com/1471-2393/12/105).

22) Envuladu E.A, Agbo H.A, Lassa S, Kigbu J.H, Zoakah A.I. Factors determining the choice of a place of delivery among pregnant women in Russia village of Jos North, Nigeria: achieving the MDGs 4 and 5. Int J Med Biomed Res 2013;2(1):23-27

23) Ayele A, Tilahune M, Merdikyos B, Animaw W, Taye W. Prevalence and Associated Factors of Home Delivery in Arbaminch Zuria District, Southern Ethiopia: Community Based Cross Sectional Study. *Science Journal of Public Health 2015, 3(1):* 6-9. doi: 10.11648/j.sjph.20150301.12

24) Alemayehu M, Mekonnen W. The Prevalence of Skilled Birth Attendant Utilization and Its Correlates in North West Ethiopia. Biomed Research International 2015, Article ID 436938, 8 pages http://dx.doi.org/10.1155/2015/436938

25) Benti T, Ahmed K. Factors Determining Health Institutional Delivery Among Pregnant Women Living in Agarfa Town of Bale Zone, Oromia, South East Ethiopia. American Journal of Health Research 2015, 3(3); 130-134. doi: 10.11648/j.ajhr.20150303.13

26) Bayu H, Fisseha G, Mulat A, Yitayih G, Wolday M. Missed opportunities for institutional delivery and associated factors among urban resident pregnant women in South Tigray Zone, Ethiopia. Glob Health Action 2015; 8: 28082 - http://dx.doi.org/10.3402/gha.v8.28082

27) Fikre A. and Demissie M. Prevalence of institutional delivery and associated factors in Dodota Woreda (district), Oromia regional state, Ethiopia. Reproductive Health 2012, 9:33.

28) Yaya Y, Data T, Lindtjørn B. Maternal Mortality in Rural South Ethiopia: Outcomes of Community-Based Birth Registration by Health Extension Workers, 2015. PLoS ONE 10(3): e0119321. doi:10.1371/journal.pone.0119321

29) Asegid M, Mahmoud E, Mekonen A, Hagos S, Fantahun M. Why do women not deliver in health facilities: a qualitative study of the community perspectives in south central Ethiopia? BMC Research Notes 2014, 7:556.

30) Mageda K , Mmbaga EJ. Prevalence and predictors of institutional delivery among pregnant mothers in Biharamulo district, Tanzania. Pan African Medical Journal 2015; 21:51 doi:10.11604/pamj.2015.21.51.6347, Available online at: http://www.panafrican-med-journal.com/content/article/21/51/full/

31) Feyissa TR, Genemo GA. Determinants of Institutional Delivery among Childbearing Age Women in Western Ethiopia, 2013: Unmatched Case Control Study, 2014. PLoS ONE 9(5): e97194. doi:10.1371/journal.pone.0097194)

32) Karkee R, Lee AH, Binns WC. Determinants of facility delivery after implementation of safer mother programme in Nepal: a prospective cohort study. BMJ Open 2013,13:193

33) Mageda K,Mmbaga EJ. Prevalence and predictors of institutional delivery among pregnant mothers in Tanzania.Pan African Medical Journal 2015; 21:51 doi:10.11604/pamj.2015.21.51.6347 Available online at: http://www.panafrican-med-journal.com/content/article/21/51/full/

34) Exavery A, Kanté AM, Njozi M, Tani K, Doctor HV, Hingora A, Phillips JF. Access to institutional delivery care and reasons for home delivery in three districts of Tanzania. International Journal for Equity in Health 2014;13:48 http://www.equityhealthj.com/content/13/1/48

35) Aregay A, Alemayehu M, AssefaH, Terefe W. Factors Associated with Maternal Health Care Services in Enderta District, Tigray, Northern Ethiopia: A Cross Sectional Study. American Journal of Nursing Science 2014; 3(6): 117-125. doi:10.11648/j.ajns.20140306.15

36) Woldemariam T, Getaneh F. Sheka Forest Biosphere Reserve Nomination Form. Addis Ababa 2011.

9 ANNEX

*ANNEX 1: **QUESTIONNAIRE IN ENGLISH VERSION***

JIMMA UNIVERSITY COLLEGE OF HEALTH SCIENCES

DEPARTMENT OF POPULATION AND FAMILYHEALTH

QUESTIONNAIRE FOR COMMUNITY BASED SURVEY ON PLACE OF DELIVERY AFTER ANC UTILIZATION IN SHEKA ZONE MASHA WORDA, SOUTH WEST ETHIOPIA.

Consent Form: Hello! My name is _____ I am working as a data collector temporarily for post graduate student of Jimma University College of Health Sciences. The main purpose of this study is to find out the reason for not utilizing skilled birth attendant after ANC utilization.

It has been noted very few women nationally and more so in the region as well as in the Worda use facility based delivery services. The purpose of this study is to find out why this is so, and to make recommendations on how improvements can be made towards encouraging women to deliver at health facilities or use SBAs.

So you are kindly requested to be included in the study, which will have importance in improving maternal health services. The interview will take about 20-30 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. Only honest answers would contribute to improvement of health planning. The study has approval from Jimma University. "Can we start now?" If yes, continue interviewing

If No, thank and stop interviewing.

- Name of the interviewer _____Sign. _____
- Date of interview _____
- Name of the supervisor _____. Sign _____ Date_____

PART ONE: SOCIO- DEMOGRAPHIC CARACTERSTICS OF RESPONDANTS

S.NO	Questions	Alternative /choice of response	Code	Skip
101	What is your age in completed years?	_____		
102	To which religion do you belong?	1. Orthodox Christian 2. Muslim 3. . Protestant 4. Catholic. 5. Other, specify-----		
103	What is your marital status?	1. Currently married 2. Divorced 3. Widowed 4. Single		
104	To which ethnic group do you belong?	1. Shekacho 2. Kafecho 3. Amhara 4. Oromo 5. Other _____		
105	What is the highest grade you completed?	1. Illiterate 2. read and write 3. primary school 4. secondary and certificate 5. collage and above		
106	What is the highest grade your husband completed?	1. Illiterate 2. read and write 3. primary school 4. secondary and certificate 5. collage and above		
107	What is your Occupation?	1 Housewife 2 Civil servant 3 Merchant 4 Other (specify		

108	Partner's/ husband Occupation?	1 Farmer 2 Daily laborer 3 Civil servant 4 Merchant 5 Others specify_____		
109	How much is the average family income per month?	_____ Ethiopian Birr		
110	Total family size	_____		

PART TWO: OBSTETRIC CHARACTERISTICS

S.NO	Questions	Alternative /choice of response	Code	Skip
201	How old were you at your 1st pregnancy, age in completed years?	_____		
202	How many times you have been pregnant in your life ?Probe for abortions, and stillbirth	No. of pregnancies _____ Abortion _____ stillbirth _____ live birth_____		
203	When was your last child delivered	_____		
204	Did you experience any of the danger signs during your last pregnancy?	1 Yes 2. No		2 to 207
205	If yes, what action did you take?	1 Consulted health workers 2 Consulted TBA 3 Used traditional medicine 4 Did not take any action 5 Other specify _____		
206	What was the problem?	_____		
207	Was the pregnancy intended?	1. yes 2. no		

PART THREE: INSTITUTIONAL FACTORS

S.NO	Questions	Alternative /choice of response	Code	Skip
301	How long was the time you spent in waiting to get ANC services in all visits?	1. Short 2. Fair 3. Long		
302	During your ANC visit was privacy assured	1. Yes 2. No		
303	Did your provider explain your health condition with terms that were understandable for you?	1. Yes 2. No		
304	Did the HW counsel you on BP&CR during your pregnancy	1. Yes 2. No		
305	Did your husband/partner participate in the BP&CR counseling session?	1. Yes 2. No		
306	Did your provider mention to you any pregnancy danger signs?	1. yes 2. no		
307	Do you have confidence on the service provided at that health institution?	1. Yes 2. No		
308	How do you rank the behavior of health workers providing ANC service?	1. Very good 2. Good 3. Fair 4. Bad		
309	Are you treated with respect	1. Yes 2. No		
310	What is your' feeling about the quality of ANC given?	1. Very good 2. Good 3. Satisfactory 4. Poor		

PART FOUR: INDI VIDUAL PERCEPTION, AND KNOWLEDGE

S.No	Questions	Alternative /choice of response	Code	Skip
401	Are you aware of any health risks a woman might experience during pregnancy?	1. Yes 2. No		2 to 403
402	If yes what are the risks?	1 Pregnancy related disease 2. Maternal death 3. Fetal death 4. Other specify		
403	Do you know any danger signs of pregnancy?	1. Yes 2. No		2 to 406
404	If yes please mention all pregnancy danger signs that need urgent intervention from a health care provider? DO NOT READ THE RESPONSES, CIRCLE ALL THAT APPLY.PROBE: any other?	1. Swelling of leg 2. Swelling of face 3. Vaginal bleeding 4. Reduced/absence of fetal movement 5. Severe head ache 6. Severe abdominal cramps 7. Increased BP 8. Leakage of amniotic fluid without labor 9. other specify_____		
405	From where did you get this information	1. HEW 2. Health care provider 3. Media (TV, radio) 4. Others specify_____		
406	Do you know any danger signs of labour?	1. Yes 2. No		2 to 408
407	If yes, what are the danger signs do you know? Multiple responses are possible.	1. Prolonged labor >12hrs 2. Early rupture of membrane 3. Vaginal bleeding 4. Placenta retention >1hr		

		5. Increased BP 6. Convulsion 7. Other, specify		
408	Do you know most complications of labor are preventable?	1. Yes 2. No		2 to 410
409	If yes for the above question, how we can prevent it? (Open-ended)	_____		
410	Do you think giving birth at home has risks?	1. Yes 2. No		2 to 412
411	If yes, what risks do you know? DO NOT READ THE RESPONSES, CIRCLE ALL THAT APPLY.PROBE: any other?	1 Maternal exhaustion 2 Fetal distress 3 Maternal deaths 4 Fetal/neonatal death 5 Disease transmission from attendants 6 Exposure to HTPS 7 other specify_____		
412	Do you know any benefits of giving birth at HFs?	1 Yes 2. No		2 to 414
413	If yes, what benefits do you know?	1. Early detection of problems 2. Timely RX of problems 3. Lower maternal exhaustion 4. Better new born care 5. HTPS can be avoided 6. Other specify_____		

PART FIVE: SERVICE UTI LIZATION

S.No	Questions	Alternative /choice of response	Code	Skip
501	Number of ANC you were attended during your last pregnancy	1. Once only 2. Two to three times 3. Four and above		

502	Gestational age at first ANC visit during your last pregnancy	1 1-3 months 2 4-6 months 3 6-9 months		
503	What health services did you receive when you visited the clinic during your first ANC visit? (multiple responses) DO NOT READ THE RESPONSES, CIRCLE ALL THAT APPLY.PROBE: any other?	1 Physical examination (including weight, B/P,) 2 Abdominal examination 3 HIV/AIDS C&T 4 STD testing 5 Blood tests 6 Iron supplements 7 Tetanus vaccine 8 other specify _____		
504	If you took Tetanus vaccine how many times?(check TT card, if card is given)	1 Only once 2 Two times 3 Three& more		
505	Where did your last delivery take place?	1 Health facility 2 Home		1 to 508
506	If home, who assisted delivery?	1. TBA 2. Relatives 3. HEW 4. Unattended /self		
507	What made you deliver at home?	1 Home delivery was normal 2 perceived poor health service 3 Traditional beliefs 4 Long distance to health facility 5 short labor 6 others (specify)		
508	Who decide the site where you delivered from?	1 Self 2 Husband 3 Both 4 Health worker 5.Relatives		

509	If you delivered at health institution (for No 501 Answer is heath facility), what made you deliver in health facility?	1 Safe and clean delivery 2 Better service 3 Fear of complication 4 I was informed to deliver in HF during ANC visit 5 close to my home 6 Previous bad outcome 7 Others (specify)		
510	HOW do you evaluate delivery service Provider attitude toward laboring women?	1 Very good 2 Good 3 Satisfactory 4 Poor		
511	How satisfied were you with the care you received from the skilled birth attendant?	1 Completely Satisfied 2 Partially Satisfied 3 neither satisfied nor dissatisfied 4 Dissatisfied		
512	What was the reason for your dissatisfaction? (Open-ended)	_____		
513	Do you think it is always important to deliver at health facility	1. Yes 2. No		
514	Over all, how do you rate the quality of services you received from health institution?	1. Very good 2. Good 3. Satisfactory 4. Poor		

PART SIX: ACCESSIBILITY

S.No	Questions	Alternative /choice of response	Code	Skip
601	How far is the nearest health facility from your home?	Distance in hour _____		
602	What mode of transport you used to reach health facility?	1 On foot 2. On horse/mule back 3 Vehicle 5. Other, specify _____		
603	Did you pay any birr for maternal health services?	1 Yes 2 No		
604	If yes for what purpose you paid? (open-ended)	_____		
605	How much is the payment in birr?	_____ Ethiopian birr		

ANNEX 3 AMHARIC VERSION OF QUESTIONNAIRE

ጂማ ዩንቨርሲቲ ጤና ሳይንስ ኮሌጅ የህዝብና ቤተሰብ ጤና ትምህርት ክፍል

መግለጫ፡- እናቶች የቅድመ ወሊድ አገልግሎት ካገኙ በኋላ በጤና ተቋም እንዲይወልዱ የሚያግዱ ጉዳዮችን ለማጥናት የተዘጋጀ መጠይቅ

የሚስጥር አጠባበቅ ስምምነት

ጤና ይስጥልኝ እኔ----------እባላለሁ፡ዋምሰራዉ ለጅማ ዩኒቨርስቲ ጤና ሳይንስ ኮሌጅ

ድህረ-ምረቃ ተማሪ ለሆነችው እንዴ ጊዜያዊ መረጃ(ዳታ) ሰብሳቢ በመሆን ነው፡፡

የጥናቱ ዓላማ፡- *እናቶች የቅድመ ወሊድ አገልግሎት ካገኙ በኋላ በጤና ተቋም እንዲይወልዱ የሚያግዱ ጉዳዮችን የሚያጠና ስሆን ፣ እናቶች የቅድመ ወሊድ አገልግሎት ካገኙ በኋላ የት እንደሚወሊዱና የወሊድ አገልግሎት እንዲይጠቀሙ የሚያግዱትን ጉዳዮች ለይቶ የመፍትሄ መንገዶችን ለመጠቆም ነዉ፡፡*

ለዚሁ ዓላማ የእርስዎን ማህበራዊና ሰነ ህዝባዊ መረጃ ፣ የቅድመ ወሊድ አገልሎትን ና ፣ የወሊድ ሁኔታን በተመለከተ ስላለዎት ግንዛቤና አመለካከት ዙሪያ መረጃዎችን እንሰበስባለን፡፡ በመሆኑም የሚሰጡን መረጃ መንግስትና ሌሎች ጉዳዩ የሚመለከታቸዉ አካላት የእናቶችን የወሊድ አገልግሎት አጠቃቀም ለማሻሻል የመፍትሄ መንገዶችን እንዲቀይሱ ይረዳቸዋል፡፡ ምክንያቱም ያለባለሙያ እገዛ የሚወልዱ እናቶችና የሚወልዱአቸዉ ህጻናት በከፍተኛ ሁኔታ እስከሞት ለሚያደርሱ ጉዳቶች ይጋለጣሉና፡፡ በጥናቱ ላይ የሚሳተፉት በፍላጎትዎ ሲሆን በሙሉም ሆኔ በከፊል ያለመሳተፍ መብትዎ የተጠበቀ ነዉ፡፡ ጥናቱ ላይ ያለመሳተፍ ዉሳነዎ የተከበረ ከመሆኑም በላይ የጤና አገልግሎት አጠቃቀምት ላይ ምንም ዓይነት ችግር አይከሰትም፡፡ በሚንሰበስባቸዉ መረጃዎች ላይ ስምዎት ስለማይመዘገብና ሌሎችም መለያ መረጃዎች በሚሰጥር ተጠበቀዉ ከጥናቱ በሀኋላ ስለሚቃጠሉ ምስጥርዎት እንደማየባክን እርግጠኛ ይሁኑ፡፡ ቃለ-መጠይቁ ለ30 ደቂቃ ያህል የሚወስድ ሲሆን በማንኛዉም ጊዜ ማቆም ይችላሉ፡፡ እስካሁን በተነጋገርንባቸዉ ጉዳዮች ላይ ያልገባዎትና ግልፅ ያለሆነ ነገር ካለ መጠየቅ ይችላሉ፡፡ አሁን በጥናቱ ላይ ለመሳተፍ ተስማምተዋል?

አዎ---------- አይደለም---------- ፈቃደኛ ካለሆኑ ዉሳኔያቸዉን አክብረህ (ሽ)

በማመስገን ወደ ቀጣዩ ቤት ሂደ(ጂ)

የተስማሙ ከሆነ ቃለ መጠይቁን ቀጥል(ይ)

ቃለ መጠይቁን ያደረገችዉ ስም---------- ፊርማ-------- ቀን----------

ክፊል አንድ ፤-ማህበራዊና ስነ-ህዝባዊ መረጃዎች

ተ.ቁ	ጥያቀዎች	አማራጭ መልሶች	ወደ
101	*ዕድሜዎ ስንት ነዉ?*	_____	
102	*ሃይማኖትዎ ምንድነዉ?*	1. *ኦርቶዶሰ ተዋህዶ* 2. *ሙሰልም* 3. *ፕሮተሰታንት* 4. *ካቶሊክ*	
103	*የትዳር ሁኔታ*	1. *በትዳር አንድ ላይ ያሉ* 2. *በፍቺ የተለዩ* 3. *በሞት የተለዩ* 4. *ከትዳር ውጪ*	
104	*ብሄርዎ ምንድነ ው*	1. *ሸካቾ* 2. *ካፋቾ* 3. *ኦሮሞ* 4. *አማራ* 5. *ሌሎች*	
105	*የትምህርት ደረጃ*	1 *ፊደል ያልቆጠሩ/ማንብብና መፃፍ የማችሉ/* 2 *ማንብብና መፃፍ የሚችሉ* 3 _____ ከፍል የጨረሱ	
106	*የትዳር አጋር የትምህርት ደረጃ*	1 *ፊደል ያልቆጠሩ/ማንብብና መፃፍ የማችሉ/* 2 *ማንብብና መፃፍ የሚችሉ* 3 _____ ከፍል የጨረሱ	
107	*የመተዳደርያ ሰራ*	1 *የቤት እምቤት* 2 *የመንግስት ሰራተኛ* 3 *ነጋዴ* 4 *ሌላ*	

108	*የትዳር አጋርዎ የሥራ ሁኔታ*	*1 አርሶ አደር* *2 የቀን ሰራተኛ* *3 የመንግስት ሰራተኛ* *4 ነጋዴ* *5 ሌላ*	
109	*አጠቃላይ ወርሃዊ ገቢ*	_____ የኢትዮ ያን ብር	
110	*አጠቃላይ የቤተሰብ ቁጥር*	_____	

ክፍል ሁለት፡ የእርግዝና ሁኔታ

ተ.ቁ	ጥያቄዎች	አማራጭ መልሶች	ወደ
201	*በመጀመሪያ እርግዝናዎ ጊዜ ዕድምዎ ስንት ነበር*	_____	
202	*በህይወትዎ ዘመን ስንት ጊዜ አርግዘዋል?*	1. የእርግዝና ብዛት _____ 2. ውርጃ _____ 3. ሙቶ የተወለደ _____ 4. በህወት የተወለደ _____	
203	መቸ ነበር የመጨረሻ ልጅዎ የወለዱት	_____	
204	*አደገኛ የ እርግዝና ምልክትችበመጨረሻዉ የእርግዝ ወቅት አጋጥሞታል*	1. *አዎ* 2. *አይደለም*	2 ወደ 207
205	*ከላይ ለቀረበው ጥያቄ መልሱ አዎ ከሆነ የወሰዱት መፍትሄ*	1. *የጤና ባለሙያ ማማከር* 2. *የልምድ አዋላጆን ማማከር* 3. *ባህላዊ መድኃኒት መዉሰድ* 4. *ምንም አይነት መፍተሄ አልወሰድኩም* 5. *ሌሎች/ይጠቀስ/_____*	
206	*ምን ነበረ ያጋጠመዎት ችግር*	_____	
207	*እርግዝናዉን ፈልገው ነው ያረገዙት*	1. *አዎ* 2. *አይደለም*	

ክፍል ሦስት ፡ የተቋሙ ሁነታ

ተ.ቁ	ጥያቄዎች	አማራጭ መልሶች	ወደ
301	ለእርግዝና ከትትል ወደ ጤና ተቋም ከመጡ በኋላ አገልግሎቱን ለማግኘት የወሰደብዎ ጊዜ	1. አጭር ጊዜ 2. መካከለኛ ጊዜ 3. ረጅም ጊዜ	
302	የእርግዝና ምርመራ ጊዜ የአገልግሎት አሰጣጡ በግልና ምስጥራዊዎ ነበር	1. አዎ 2. አይደለም	
303	በክትትል ወቅት የሚከታተለው ባለሙያ ስለ ጤናዎ ሁነታ በሚገባኦት ቋንቋ ገልፆት ነበር	1. አዎ 2. አልገለፀም	
304	የት መውለድ እንዳለብሽና ለወሊድ መዘጋጀት እንዳለብሽ በእርግዝና ወቅት ባለሙያው ምክር ሰጥቶ ነበር	1. አዎ 2. አይደለም	
305	ከላይ ለቀረበው ጥያቄ ምላሽዎ አዎ ከሆነ ከባለበቶዎ ጋር ነበር ምክሩን ያገኙት	1. አዎ 2. አይደለም	
306	አገልግሎቱን የሰጠዎት ባለሙያ በእርግዝና ጊዜ ስለሚከሰቱ አደገኛ ምልክቶች አሰገንዝበዉታል	1. አዎ 2. አይደለም	
307	በጤና ተቋሙ በተሰጠዎት አግልግሎት ላይ ይተማመኑ ነበር	1. አዎ 2. አይደለም	
308	የቅድመ ወሊድ አገለግሎት የሰጠዎትን ባለሙያ ሙያዊ ስነ ምግባር እንዴት ገመገሙ	1. በጣም ጥሩ 2. ጥሩ 3. ተመጣጣኝ 4. መጥፎ	
309	በአከብሮት ነበር የተስተናገዱት	1. አዎ 2. አይደለም	
310	ስለ ቅድመ ወሊድ አገልግሎት አሰ ጣጥ ምን ይሰማዎታል	1. በጣም ጥሩ 2. ጥሩ 3. ተመጣጣኝ 4. መጥፎ	

ክፍል አራት ፡ የእናቶች ግንዛበና አመለካከት ጥያቄዎች

ተ.ቁ	ጥያቀዎች	አማራጭ መልሶች	ወደ
401	ከእርግዝና ጋር ተያይዞ ስለሚመጣ የጤናችግር ያውቃሉ	1. አዎ 2. አላውቅም	2 ወደ 403
402	ከላይ ለቀረበው ጥያቄ ምላሽዎ አዎ ከሆነ ምን ምን ያውቃሉ	1. እርግዝና ጋር የተያያዘ በሽታ 2. የእናት ሞት 3. የጨቅላ ህጻን ሞት 4. ሌሎች/ይጠቀስ/_____	
403	በእርግዝና ጊዜ የሚከሰቱ አደገኛ ምልክቶችን ያውቃሉ	1. አዎ 2. አይደለም	2ወደ 405
404	ከላይ ለቀረበው ጥያቄ ምላሽዎ አዎ ከሆነ አፋጣኝ የባለሙያ እርዳታ የሚያስፈልጉ አደገኛ ምልክቶችን ይጥቀሱ (ምርጫውን ሳታነቡ ምላሹን ብቻ ማክበብ)	1. የእግርእብጠት 2. የፊት እብጠት 3. የደም መፍሰስ 4. የጽንስ እንቅስቃሴ መቀነስ 5. ከባድ የእራስ ምታት 6. ከባድ የሆድ ቁርጠት 7. የደም ግፍት መጨመር 8. ከምጥ በፍት የእንሽርት ውሃ መፍሰስ 9. ለላ ካለ ይግለጹ_____	
405	ከላይ ለተጠቀሰዉ መረጃዉን ከየት ነዉ ያገኙት	1. ከጤና ኤክስቴሽን ባለሙያ 2. ከጤና ባለሙያ 3. ከረድዮና ተለብዘን 4. ለላ ካለ ይግለጹ_____	
406	በምጥ ወቅት ሊያገጥሙ የሚችሉን አደገኛ ምልክቶች ያዉቃሉ	1. አዎ 2. አይደለም	2 ወደ 407
407	መልሶ አዎ ከሆነ ምን ምን ያውቃሉ	1. ከአስራ ሁለት ሰዓት በላይ የምጥ መቆየት 2. የእንሽርት ውሀ ቀድሞ መፍሰስ 3. የደም መፍሰስ 4. የእንግዴልጅ መቆየት	

		5. የደም ግፍት መጨመር 6. ማንቀጥቀጥ 7. ሌሎች/ይጠቀስ/_____	
408	አብዛኛዎቹ ከምጥ ጋር ተያይዞ የሚመጡ ችግሮችን መከላከል እንደምቻል ያውቃሉ	1. አዎ 2. አላውቅም	
409	ካወቁ እንደት መከላል ይቻላል	_____	
410	ቤት መውለድ አደጋ እንዳለው አስበው ያውቃሉ	1. አዎ 2. አላውቅም	2 ወደ 412
411	ምላሽዎ አዎ ከሆነ ምን አይነት አደጋ እንደሚከሰት ያውቃሉ(ምርጫውን ሳታነቡ ምላሹን ብቻ ማክበብ)	1. አቅም ማጣት 2. የህጻን መታፈን 3. እናት ሞት 4. ጨቅላ ህጻን ሞት 5. ከሚያዋልደው ሰው የበሽታ መተላለፍ 6. ለጎጂ ልማዳዊድርጊት መጋለጥ 7. ሌሎች/ይጠቀስ/_____	
412	በጤና ተቋም መውለድ ጥቅም እንዳለው ያውቃሉ	1. አዎ 2. አላውቅም	2 ወደ 413
413	ምላሽዎ አዎ ከሆነ ጥቅሙ ምንድነው	1. ቶሎ ችግሮችን ለመለየት 2. ለችግሮች ቶሎ መፍተሔ ለመስጠት 3. የእናት ድካም ለመቀነስ 4. ለጭቅላ ህጻን የተሻለ እንክብካቤ ለማድረግ 5. ጎጂ ልማዳዊ ድርጊቶችን ለመከላከል 6. ሌላ ካለ ይግለጹ	

ክፍል አምስት፡ የጤና አገለግሎት አጠቃቀምን በተመለከተ

ተ.ቁ	ጥያቄዎች	አማራጭ መልሶች	ወደ

501	በመጨረሻዉ የእርግዝና ወቅት ለስንት ዙር የእርግዝና ክትትል ኤድርገዋል	1. ለአንድ ጊዜ ብቻ 2. ከሁለት እስከ ሦስት 3. አራት እና ከዚያ በላይ	
502	በመጨረሻ እርግዝና ወቅት በስንትኛዉ ወር ነበር ለመጀመሪያ የእርግዝና ክትትል የጀመሩት	1-3 ወር 4-6 ወር 7-9 ወር	
503	ለመጀመርያ ጊዜ ለእርግዝና ክትትል ወደ ጤና ተቋም ስመጡ ምንምን አገልግሎቶችን አገኝተዋል	1 አካላዊ ምርመራ/ኪሎ የደም ግፊት ምርመራ/ 2 የጽንስ አቀማመጥ ምርመራ 3 ኤች ኢይ ቪ ኤድስ 4 የአባለዘር በሽታዎች ምርመራ 5 የደም ምርመራ 6 የኢይረን እንኪብል እደላ 7 የመንጋጋ ቆልፍ ክትባት 8 ለላ ካለ ይግለጹ	
504	የመንጋጋ ቆልፍ መከላከያ ክትባት ወስድው ከሆነ ለምን ያክል ዙር ወስደዋል (ካርድ ላለ ማረጋገጥ)	1. አንድ ጊዜ 2. ሁለት ጊዜ 3. ሶስትና ከዚያ በላይ	
505	የመጨረሻ ልጅትን የት ነው የወለዱት	1. ጤና ተቋም 2. መኖሪያ ቤት	1 ወደ 508
506	ከላይ ለቀረበው ጥያቄ መልሰዎ እቤት ከሆነ በማንነበር ያዋለዶት	5. በልምድ አዋላጅ 6. በጤና ኤክስቴሽን ባለሙያ 7. በቤተሰብ 8. ካለማንም እርዳታ	
507	ቤት እንድወለዱ ምክንያቱ ምን ነበር	1. ቤት መውለድ ችግር ስለማይኖረው 2. በጤና ተቋም የሚሰጠው አገለግሎት ጥራት ያለው ስላልመሰለኝ 3. ባህላችን ስለማይፈቅድ 4. የጤና ተቋም ርቀት ስላለው 5. ሚጥ ስላጣደፈኝ 6. ሌላ ምክንያት ካለ ይግለጹ	

508	በወልድ ወቅት የት መውለድ እንዳለብዎ ማን ነበር የሚወሰነው	1. ራሰ 2. ባለቤተ 3. ባለቤተ ናእነ 4. የጤናባለሙያ 5. ቤተ-ዘመድ	
509	የወለዱት የጤና ተቋም ከሆነ በጤና ተቋም እንድወልዱ የገፋፋዎት ምክንያት ምን ነበር	1. ለጥንቃቄና ለንጽህና 2. ለተሻለ አገለግሎት 3. ሊመጣ የሚችለውን አደጋ በመፍራት 4. በጤና ተቋም መውለድ እንዳለብኝ በቅድመ ወሊድ ክትትል ጊዜ በባለሙያ ስለተነገረኝ 5. የጤና ተቋም በቤቴ አቅራቢያ ስለሚገኝ 6. በፊቱ ወሊድ ጊዜ ችግር ኣጋጥሞኝ ስለነበር 7. ሌላ ካለ ይግለጹ	
510	ያዋለድዎትን የባለሙያ አገለግሎት አሰጣጥ እንዴት ገመገሙ	1. በጣም ጥሩ 2. ጥሩ 3. አጥጋቢ/ምንም አይልም/ 4. ጥሩ አልነበረም	
511	በጤና ተቋም በተሰጠዎት በባለሙያ አገለግሎት ምን ያህል ደስተኛ ነበሩ	1. በጣም ደስተኛ ነበርኩ 2. በመጠኑ 3. ምንም አይልም 4. ደስተኛ አልነበርኩም	
512	ከላይ ለቀረበው ጥያቄ ምላሽዎ ደስተኛ አልነበርኩም ካሉ ያልተደሰቱበት ምክንያት ምን ነበር	_____ -	
513	ሁል ጊዜ በጤና ተቋም መውለድ አስፈላጊ ነው ብለው ያምናሉ	1. አዎ 2. አይደም	
514	ባጠቃላይ በጤና ተቋም ያገኙትን የአገለግሎት አሰጣጥ እንደት ይገመግሙታል	1. በጣም ጥሩ 2. ጥሩ 3. መጠነኛ 4. ጥሩ አልነበረም	

ክፍል ስድስት ፡ተደራሽነትን በተመለከተ

ተ.ቁ	ጥያቄዎች	አማራጭ መልሶች	ወደ
601	*ጤና ተቋሙ ከቤትዎ ምን ያህል ርቀት ላይ ይገኛል*	1. የ_____ ሰዓት መንገድ ይሆናል	
602	*ወደ ጤና ተቋሙ ለመሄድ ምን አይነት ትራንስፖርት የሚጠቀሙት*	1. በእግር 2. ፈረስ 3. መኪና 4. ሌላ ካለ ይግለጹ	
603	*የእናቶችን ጤና አገለግሎት ለማግኘት ወደ ጤና ተቋም ሰሄዱ ከፈያ ፈጽመው ያውቃሉ*	1. አዎ 2. አልከፈልኩም	
604	*ከላይ ለቀረበው ጥያቄ አዎምላሽዎ ከሆነ -ለምን አይነት አገለግሎት ነው የከፈሉት*	_____	
605	*ከፈያ ምን ያክል ነበር*	_____ የኢትዮ ያን ብር	