



ADDIS ABABA UNIVERSITY
COLLEGE OF HEALTH SCIENCE
SCHOOL OF PUBLIC HEALTH

*ASSESSMENT OF FACTORS INFLUENCING MAGNITUDE AND UTILIZATION
OF INSTITUTIONAL DELIVERY SERVICE IN WOMEN OF REPRODUCTIVE
AGE IN NIFAS SILK LAFTO SUB-CITY, ADDIS ABABA, ETHIOPIA.*

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degree of master in general Public Health.

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This thesis by **Zubeida Abdulkadir Adem** is accepted in its present form by the board of examiners as satisfying thesis requirement for the degree of master in general public health.

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List of Abbreviations

ANC	Antenatal Care
AOR	Adjusted Odds Ratio
APH	Ante Partum Hemorrhage
AVD	Assisted Vaginal Delivery
CI	Confidence Interval
COR	Crud Odds Ratio
C/S	Caesarean Section
EDHS	Ethiopian Demographic and Health Survey
ETB	Ethiopian Birr
EVB	Excessive Vaginal Bleeding
ID	Institutional Delivery
IUFD	Intra Uterine Fetal Death
OR	Odds Ratio
PNC	Postnatal Care
PROM	Premature Rupture of Membranes
PTL	Pre-Term Labor
RP	Retained Placenta
SVD	Spontaneous Vaginal Delivery
TBA	Traditional Birth Attendant
WRA	Woman of Reproductive Age

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Abstract

Back ground: -Every pregnancy is a risk which may end up with complication or death. Institution delivery is a good means to undertake this risk in providing the delivery service by skilled personnel and which will contribute to reduce maternal morbidity and mortality especially for developing countries like Ethiopia.

Objective:-This study was designed and conducted with the aim of assessing factors influencing magnitude and utilization of institutional delivery in Nifas Silk Lafto Sub-city in Addis Ababa, 2014.

Methods:-A community based cross sectional study using quantitative methods was conducted in Nifas Silk Lafto Sub city, Addis Ababa. A study population was all six ketena's in Woreda two of the sub-city. The total sample size for the study was estimated by single proportion population formula. Data was collected from 794 women of reproductive age using structured questionnaire, EPI-info version 3.5.1 was used to enter the data and SPSS version 20.0 was employed for analysis. Logistic regression and odds ratio was calculated to ascertain association between dependent and independent variable. The result was present in tables and text.

Result

A total of 768 women of reproductive age participated in this study. Women who have higher level of education were about 3.6 times more likely to deliver at health institution compared to women with low level of education [AOR: 3.6, 95% CI: (1.1 , 11.8)].The study also showed that 92.9% of mothers gave birth in health institution.

Conclusion: - This study highlighted institutional delivery is most favorable so that promoting institutional delivery and women education is crucial among women of reproductive age group.

1. Introduction

1.1 Back ground

According to estimates presented for 172 countries and territories in the interagency report, approximately 358000 maternal deaths occurred worldwide in 2008. At global level maternal mortality ratio fall by 34% from 1990 to 2008. In sub-Saharan Africa, a woman's risk of dying from treatable or preventable complications of pregnancy and childbirth over the course of her lifetime is 1 in 22, compared to 1 in 7,300 in the developed regions (1, 2).

Globally an estimated 287,000 women died in pregnancy and child birth in 2010, a decline of 47% from level of 1990 with Sub-Saharan Africa and South Asia accounting for 85% of the those maternal death, according to report on trends in maternal mortality between 1990 to 2010(3). Various studies showed that maternal deaths are most common in the developing countries with the rate being higher in sub Saharan African countries. The possible reasons suggested by most authors for the higher rate of maternal mortality in sub Saharan African countries were less ANC utilization, low utilization of skilled birth attendants, few number of facilities that provide quality services to women, maternal malnutrition, abortion, hemorrhage and sepsis. Every pregnancy, irrespective of risk category, may develop life threatening complications which end up in sudden and unpredictable deaths throughout pregnancy, labor, and child birth and in the post-partum period. Between 11% and 17% of maternal deaths happen during child birth itself and between 50% and 71% in the post-partum period (3, 4).

And global maternal mortality has reduced by 45% between 1990 and 2013. Thus in 2013, an estimated 289,000 women died due to complications in pregnancy and childbirth, down from 523,000 in 1990. Slightly more than half in Sub-Saharan Africa region which is the highest MMR (510 maternal deaths per 100,000 live births), accounting for 62% (179,000) of global maternal deaths. The MMR in developing regions (230 maternal deaths per 100,000 live births) was 14 times higher than in developed regions (16 maternal deaths per 100,000 live births).(5)

1.2 Statement of the problem

Ethiopia is one of the country in Sub-Saharan Africa with markedly high maternal mortality ratio (MMR) - that stands at 676 per100, 000 live births. Most of these deaths occur at home where skilled birth attendants are lacking. Pregnant mothers get no support at all when delivering at home or may get a little (if any) support from neighbors, relatives or traditional birth attendants (6).

Skilled delivery in Ethiopian is the lowest which was - only 10% of births occurred at health facility,(EDHS, 2011) (7). The proportion of women delivering at health intuitions in different sub cities of Addis Ababa City Administration varies from 32 to 85 percent (from Addis Ababa health bureau and Sub city report 2014).

The institutional delivery service of Nifas Silk Lafto Sub- city is among the lowest in Addis Ababa next to Gulele sub city 32% which was 39% in 2014. Though no study was done reports from the Sub city indicate that the number of maternal and neonatal deaths in the sub city is ever increasing.

1.2 Rational of the study

In Ethiopia the levels of maternal mortality is the highest in the world. One explanation for poor health outcome among women none use of modern service by sizable proportion in the country. The proportion of births attended by skilled personnel is low even in areas where women have access to the services. However, it is not known why majority of pregnant women do not deliver their babies in a health institution.

There is no study done in sub-city to know the magnitude of institutional delivery and factors influencing the utilization of institutional delivery. The sub city was highly expanding with its increased population size over the last decade and thus the number of health institution did not equally increase with the population size in the sub city.

Knowing factors that are responsible for low institutional delivery services utilization in Nifas Silk Lafto Sub-city will help program managers and implementers to design a tailored intervention at Sub city level, primarily Nifas Silk Lafto Sub-City women of reproductive age will be benefited from this study and further other sub-cities in Addis Ababa will be one of the beneficiaries.

2. Literature review

2.1 Demographic Characteristics

Skilled birth attendance is known to save maternal and neonatal lives. Women who are delivering at health institutions are more likely to get skilled birth attendance than women who are delivering at home. This is particularly true in developing countries like Ethiopia where trained skilled birth attendants like doctors, health officers and mid-wives, are obtained in health institutions only. There are various factors that are associated with delivering at health institutions. Demographic factors, Socio-economic factors, Obstetric factors, health facility factors and women's decision making factors are some of the already known factors that affect utilization of health facility of delivery services.

Maternal Age

A study done in Munesa Woreda, Arsi Zone, and South East Ethiopia indicated that the age of mother has contribution to institutional delivery. Mothers less than 20 years of age during the interview were about 6 times (AOR = 6.06, 95%CI: 1.54, 23.78) more likely to deliver at health institutions than mothers more than 35 and above(2). Study done on Institutional delivery service utilization and associated factors among mothers who gave birth in the last 12 months in Sekela District, indicates 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])(8). Study done in Jhang, Pakistan shows Women less than 20 years of age, institutional delivery was nearly 10 percentage points higher among women ages 25-29 and 15 percentage points higher among women 30 and older (2,8,9).

Mother's level of education

A study done in North Gonder Zone indicates Maternal education was a strong predictor of preference to place of delivery mothers whose educational status was secondary high school and above were about 11 times more likely to give birth at health institutions than women with other level of education(OR=10.6,95%CI:6.7,16.7)(10).

Similarly Study done in Kenya showed women with secondary or higher education is significantly likely to use appropriate health facilities for delivery than those with no formal education (11).Study in Pakistan indicates about 33% of women with no education, compared to 48% with who had completed primary education and 73% with matriculate or higher education had their last delivery at a health facility (11, 9).

Study in India showed Women's with higher education were more likely to undergo skilled institutional delivery, OR =2.06, 95%CI 1.33-3.19)(12) .On the other hand a study done in Ethiopia indicates women with no education were less likely to use the service. The odds of use of such services was four and a half times and eight times higher for women with primary and secondary or higher levels of education, respectively, compared to women with no education (12,13).

Husband's level of education

Husbands' educational level was also one of the factors that predicted health institution delivery. Women whose husbands had secondary and post-secondary education were about 2.8 times (AOR = 2.77, 95%CI: 1.07, 7.19) more likely to deliver in health facilities as compared to those whose husbands were unable to read and write (2). Study done on Predictors for health facility delivery in Busia district of Uganda indicates delivery in a health facility was more likely if husband had at least secondary education and if husband was employed for cash(8). Study done on determinants of maternity care services utilization among married Adolescents in rural India indicates women whose husbands had high school education and above, were more likely to utilize full antenatal care compared to women whose husbands had no formal education (OR = 1.35, CI = 1.015–1.807)(2,14,15).

Socio economic Characteristics

Household economic status can also affect both ante natal care attendance and skilled delivery service utilization. Study has shown that a household socio-economic status is positively related with use of antenatal services such that the odds of reporting use are almost six times as high among women from the richest households compared to their counterparts from the poorest households (16). Similarly a study done on Inequity in maternal health care utilization indicates poor women in the ethnic minority group ran a 6.27 (95% CI 2.37–16.6) times greater risk of not being attended by skilled personnel as compared to poor women in the ethnic majority group. An even greater disparity was found when comparing non poor women in the different ethnic groupings, where ethnic minority women had an OR of 7.67 (95% CI 3.54–16.6) of not receiving skilled attendance at birth (17).

Likewise a study done on Factors Associated with Non-use of Maternal Health Services in Botswana indicates the majority of women who did not use maternal services were of low socioeconomic status. For instance, 23% of women with low socioeconomic status did not seek a postnatal check-up compared to 13% of women with a high. Another notable observation was that 22% of women with low socioeconomic status had non-institutional delivery compared to only 2% of women in the high socio-economic (18). Husband income is also an important predictor of skilled delivery service utilization. A study in Zaria, (Northern Nigeria) showed that the employment status of the husbands was an important determinant of the place of delivery as wives of employed husbands delivered at the hospital. This finding was statistically significant ($p < 0.05$) (19) (16, 17, 18, 19).

Wealth status of a family

Household wealth status of a family could positively affect skilled delivery utilization because wealthy families can afford to pay for transport, hospital charges and medications as opposed to poor families. A study done in Afghanistan revealed that household wealth were associated with higher use of skilled birth attendants, including being wealthier, having motorized transport, and having had a family member previously visit the health facility (20). Another study done on factors influencing the utilization of maternal health care services indicates wealth index of the

household has a positive effect on the odds of skilled attendance during delivery. The reason is that women from households with higher economic status have power of affordability and have greater exposure to accessing relevant information and knowledge regarding issues related to maternal and child health (20, 13).

Obstetric factor

Obstetric factors are other predictors of health care service utilization. Study done in Rwanda shows there is a strong association between birth order and use of health care services. The same study indicated that compared to the first child, subsequent children are more likely to be born at home without assistance or at home with professional assistance rather than at health facility (21). A study done on institutional deliveries in rural India indicates the probability of an institutional delivery raises from 9% in high order births to 39% in first births. (22). Another study which was done in Nepali showed that women who never visited ANC had 5.5 times and those who made 1–3 visits were 2 times less likely to have had institutional delivery than women who had more than four ANC visit ($p < 0.05$) (23). Women with obstetric problems are more likely to use institutional delivery service compared to those who had no obstetric problems. A study done in Metekel Zone of Ethiopia indicates that women who had problems during labor were six times more likely to use institutional delivery (OR= 5.88, 95%CI: 3.13, 11.11) compared to those who did not have obstetric problem(24).(21,22,23,24).

Women decision making

Household decision making power is another important predictor of skilled birth service utilization. In countries where decision making power is limited to the head of the house hold (usually male) skilled delivery services utilization is very low. On the contrary where decision making power is left to women themselves the health care service utilization in general and delivery service utilization in particular is found to be high. In a study conducted in Gambia one of the six health divisions in the Gambia North Bank Division 96(58%) of the women themselves decides on where to deliver; husbands 26(16%) and Doctors/nurses 13(8%), TBA and mother in-law accounted for 10(6%) respectively. In Western Division one of the biggest health division 122(54%) of the women decided where to deliver; followed by husband 63(28%) and

mother 11(5%) of the cases (25). Study done on Use of antenatal services and delivery care among women in rural western Kenya indicate Most (87%) women decided for themselves to visit the ANC; the husband, mother or mother-in-law suggested attending the ANC for only a few (5%, 4%, and 2% respectively) (25,20,27).

Religion

Various studies indicated that religion is an important factor affecting skilled delivery utilization. Unpublished documents revealed that some religions do not support institutional delivery service for they don't want women to expose their body in front of male providers. Study done in Enugu, Southeastern Nigeria 71.1% of Christians compared to 27.4% of Muslims delivered in health facilities. Study done in Ayssaita & Dubti town of Afar region in Ethiopia, showed that women whose religion was Christian were more likely to prefer health institution delivery than women whose religion was Muslim (OR= 2.77, 95% CI=1.80, 4.27) (26).

Distance from Health Facility and lack of transport

It is logical to view distance from the health facility as one of the barriers to utilization of health facility for skilled delivery purposes. Mothers who are closer to the health facility may use skilled delivery more than those who are far away. Families who cannot afford to pay for transport or service are less likely to use institutional delivery services. A study done in Nigeria showed that long distance to health facility, unavailability of means of transportation and lack of money for transportation were among the factors that were responsible for non-utilization of health facilities for skilled birth (28).

Status of health facility services and staff technical capacity

Another important consideration for health facility service utilization is the technical capacity of staff members in addition to the availability of quality services and medications. Women do not want to face unfriendly and hostile environment particularly during delivery. A study done in Nigeria indicated that unsatisfactory services at health facility, unfriendly attitude of staff of the health facility and unavailability of staff at health facility were some of the reasons for not using health facility for delivery purposes (28).

Conceptual Framework

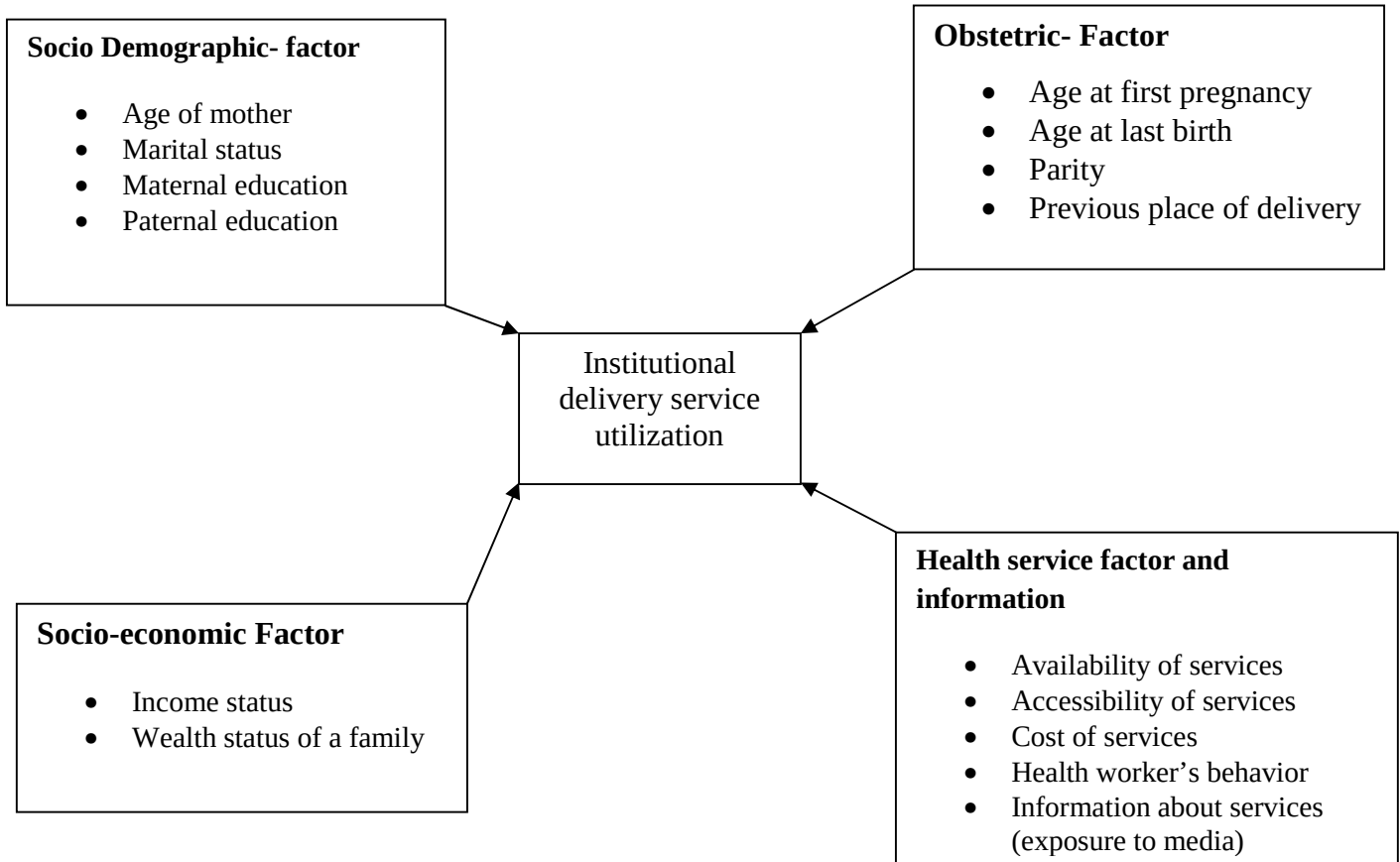


Figure1. Conceptual framework for factors influencing utilization of institutional delivery

Adapted from assessment of factor for save delivery service utilization2009.

3. Objective of the study

3.1 General Objective

To assess factors influencing magnitude and utilization of institutional delivery services among women of reproductive age in Nifas Silk Lafto Sub –City.

3.2 Specific Objective

1. To determine the magnitude of utilization of institutional delivery services among women of reproductive age in Nifas Silk Lafto Sub City.
2. To identify factors affecting the utilization of institutional delivery services in Nifas Silk Lafto Sub –City.

4. Methods and material

4.1 Study Design

Community based cross sectional study using quantitative method was conducted to determine magnitude and factors influencing utilization of institutional delivery service in Nifas Silk Lafto Sub-City Addis Ababa.

4.2 Study area and period

The study was conducted in Addis Ababa Nifas Silk Lafto Sub-city. Nifas Silk Lafto is one of the ten Sub cities in Addis Ababa located in South West of Addis Ababa and bordered by Kolfe Keranio sub-city to West, Lideta sub-city in North West, Bole Sub-city in South East, Kirkos in North East & Oromia in South West.

According to data obtained from Nifas Silk Lafto Sub-city Health Bureau, total population of the sub city was 359,089 out of which females are 52.4% (187,639), women of reproductive age 34.6% (64,923) & Population of woreda two is 46,750 and female proportion was 24,497, from which WRA is 8,476 Period of study was from March 2015 to December, 2015.

4.3 Source population

All women of reproductive age (15-49) who reside in Nifas Silk Lafto sub city.

4.3.1 Study Participants

Women of reproductive age (15-49) who gave at least one birth within last five year preceding the survey from the selected study Woreda.

4.3.2 Sampling technique

Nifas Silk Laft Sub City has 12 woredas. Simple random sampling technique was employed to select one woreda among the woredas. The Woreda was then divided in to six ketenas (the smallest administrative units) and all the six ketenes were included in the current study.

Schematic presentation of sampling technique

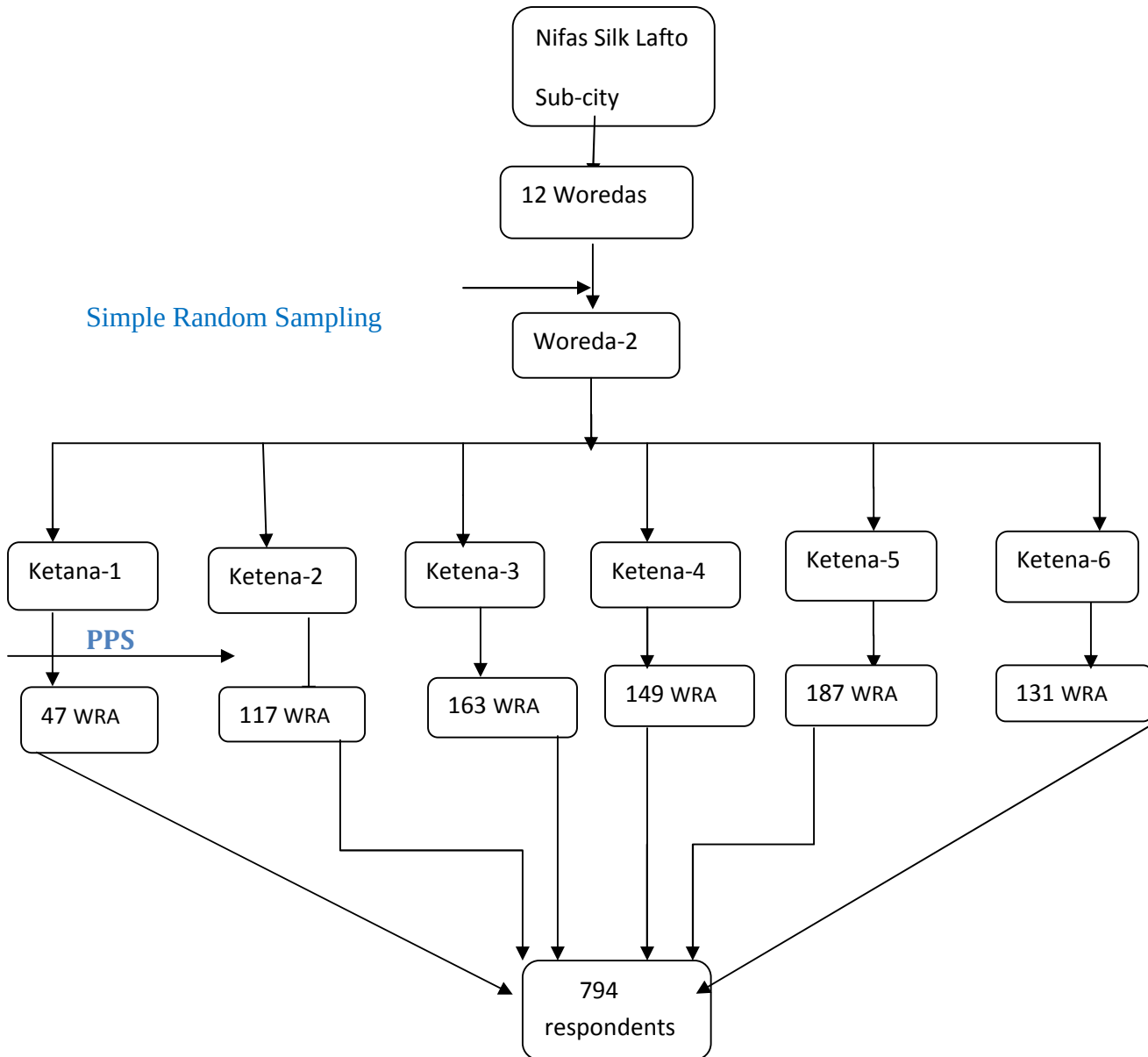


Figure 2 shows a schematic presentation of the sampling procedure or technique.

PPS-probability proportionate to size which means no of sample size depends on WRA in that Ketena.

4.3.3 Sample size determination

The sample size was determined using single population proportion formula for a cross sectional study as follows:

The assumptions taken are:

Proportion of safe delivery service $P=62.3\%$ =Preferences of place of delivery and birth attendants among women from a study in Shashemene (29).

- o $(1-P) = 37.7\%$
- o Confidence level = $95\% = 1.96$
- o Desired precision (d) = $5\% = 0.05$
- o Non-response rate= 10%
- o Design effect 2%

$$N = \left[\frac{(Z_{\alpha/2})^2 P(1-P)}{d^2} \right] + \left[\frac{(1.96)^2 0.623 (1-0.623)}{(0.05)^2} \right] + \text{Non-response rate}$$

$$N = \frac{(1.96)^2 \times (0.623 \times 0.377)}{(0.05)^2} + 10\%$$

$$N = 361 + 36 = 397 \times 2$$

$$N = 794$$

4.3.4 Data collection procedure

Six 12 grade complete data collectors and two supervisors of BSC level (one Health Officer and one Nurse) were recruited from Nifas Silk Lafto woreda health office. Training was given for one day in the woreda office by the principal investigator. Mean while any doubts in the questionnaire was clarified. The six ketenas were communicated. Actual data collection was conducted from March to April 1, 2015.

4.4 Data entry, cleaning and analysis techniques

The Data entry and cleaning was undertaken using Epi-info version 3.5.1 and SPSS 20.0 for windows for analysis. The first step before analysis was data exploration to visualize the general feature of the data to be analyzed. Descriptive statistics was used to describe the study population by independent variables in terms of frequencies and percentage and to calculate the magnitude of institutional deliveries service utilization. The strength of an association between dependent and independent variables and its significance was computed using odds ratio with 95% confidence interval. Multiple logistic regression analysis technique was employed to evaluate independent effect of exposure variables on the outcome variable. Results are presented in tables, and texts.

4.5 Data collection instruments

The data was collected using structured questionnaires designed in such a way that it includes all the relevant variables to meet the study objectives. The questionnaires was developed in English and translated into Amharic version and for better understanding of enumerators and the study participants and the translated Amharic version was translated back to English by consulting university English teacher for better grammar and coherence of the sentences and to ensure consistency.

4.5.1 Data quality management

There are points at which the quality of data may be affected unless measures are taken. These points are questionnaire designing, data collection, data entry. As this is one of the points to

control the quality of data, due emphasis was given to questionnaire designing. Objective based, logically sequenced, free of scientific terms and non-leading structured questionnaire was prepared.

Data collection and supervision is another area of focus to keep the quality of the data. The data collectors and supervisors were provided with training on the objective of the study, contents of the questionnaires and how to maintain confidentiality and privacy of the study subjects. The collected data was checked by investigator for any incompleteness and/or inconsistency.

4.6 Study variables

4.6.1 Dependent variables

Dependent variable: utilization of institutional delivery services.

4.6.2 Independent variables

Independent variables include:

Socio-demographic variables: Age, education, religious, ethnic group, occupation, marital status

Socio-economic variables Income of the respondent, income of the husband, family income

Past obstetric histories and reproductive health related behavior: Age at first delivery

number of life time pregnancy, number of live birth, age at last delivery, birth order of the last child, duration of labor, place of delivery of last child, decision of place of delivery.

4.7 Inclusion and exclusion criteria

4.7.1 Inclusion criteria

Women who gave at list one birth within five years before the survey irrespective of the place and outcome of delivery and who were reside in the study area for at least the last six month were included in the study.

4.7.2 Exclusion criteria

Women who were not able to communicate or who were seriously sick during the study period.

4.8 Operational definition

Institutional delivery: Are safe and clean deliveries attended by trained health worker in health institution.

Skilled attendance: Those people with midwifery skills (doctors, midwives and nurses) who have been trained in the skills necessary to manage normal delivery, diagnose and refer obstetric complications.

Antenatal care attended: Pregnant women who had attended antenatal clinics during the recent Pregnancy at least once.

4.9 Ethical issue

Ethical clearance was obtained from the ethical clearance committee of school of public health, Addis Ababa University through School of Public Health. The survey was commenced after written consent was obtained from Nifas Silk Lafto Sub- city and Woreda health offices. Informed verbal consent was secured for each study subjects. Each respondent were informed about the objective, the purpose of the study and assurance of confidentiality. At the end of each interview session, health education on the benefit of delivering in health institutions were given to all those study participants who didn't understand about the advantages of delivering at health institutions by interviewers up on completion of the interview.

5. Results

5.1 Socio Demographic Characteristics of the respondents

A total of 786 respondents were participated with response rate of 98.9%. The mean age and SD of respondents was (28.6 $\pm$ 5.0) years. Three hundred fifty eight respondents were (45.5) within the range of 30 and above years.

Out of total respondents 143(18.2) were illiterate as compared to 220(28.0) attained primary school and 423 (53.8) were from secondary and above while 101(12.8) of their husbands were illiterate and 184 (23.4), 501(63.7) of husbands was from primary, secondary and above respectively. About 441(56.1) were followers of orthodox, 225(28.6) Muslim and 113(14.4) protestant few of them were 7(0.9) catholic. One third 275(35.0) were from Amhara, 134(17.0) from Oromo and 122(15.5), 215(27.4) and 40(5.1) from Tigre, Gurge and others.

The data showed that 427 (54.3) of respondents were unemployed as compared to 359(45.7) of mothers who were employed in contrary 769 (97.8) of their husband were employed while 17(2.2) were unemployed.

Only 45(5.7) respondents was currently unmarried and majority 741 (94.3) were married. In case of income 61(7.8) of respondents earn less than 500ETB 300(38.2) get 500ETB and above while 425(54.0) have no income. In similar ways 75(9.5) of the husbands get less than 500ETB 690 (87.8) get 500ETB and above and only 21 (2.7) have no income. Similarly family income for most respondents 703(89.4).was 500ETB and above while the rest 75(9.5), 21(2.7) get less than 500ETB and have no income respectively.

Table.1: Socio-demographic characteristics of WRA (15-49) in Nifas Silk Lafto Sub- city, Addis Ababa, 2015. (N =786)

Variable	Number	Percent
Age of respondent		
<25 years	145	18.5
25-29years	283	36.0
30+years	358	45.5
Educational status		
Illiterate	143	18.2
Primary	220	28.0
Secondary and above	423	53.8
Religious group		
Orthodox	441	56.1
Muslim	225	28.6
Catholic	7	0.9
Protestant	113	14.4
Ethnic Group		
Amara	275	35.0
Oromo	134	17.0
Tigre	122	15.5
Gurage	215	27.4
Others	40	5.1
Occupation of the woman		
Unemployed	427	54.3
Self employed	153	19.5
Government employee	118	15.0
NGO employee	27	3.4
Daily laborer	61	7.8
Income of the woman		
less than 500 ETB	61	7.8
500 ETB and above	300	38.2
No income	425	54.0
Marital status of the woman		
Single	5	0.6
Married	741	94.3
Divorced	40	5.1
Educational status of the husband		
Illiterate	101	12.8
Primary	184	23.5
Secondary and above	501	63.7
Occupation of the Husband		
Un employed	17	2.2
Self employed	353	44.9
Government employee	172	21.9
NGO employee	52	6.6
Daily laborer	192	24.4
Income of the Husband		
Less than 500 ETB	75	9.5
500 ETB and above	690	87.8
No income	21	2.7
Income of the Family		
Less than 500 ETB	65	8.3
500 ETB and above	703	89.4
No income	18	2.3

5.2 Obstetric characteristics of the respondents

The characteristics of respondent women's of reproductive age (WRA) are presented below in (Table -2). For most of respondents 339(43.1) age at 1st delivery lies within the range of 20-24years while 273(30.2), 134(17.0) and 76(9.7) were between age of 25-29years, less than 20 years and 30 or above years respectively. The no of live time pregnancy for 312 (39.7) was once and twice or more for 474(60.3).Live birth for 14(1.8) was none or zero when compared to once and twice or more for 311(39.6) and 461(58.7) respectively.

The data showed only 56(7.1) give birth for their last child before the age of 20years as compared to 192(24.4), 303(38.5), 167(21.2) and 68(8.7) which lies within the age range of 20-24, 25-29, 30-34and 35and above years. Three hundred twenty nine of respondents (41.9) give to first birth while the remaining 264(33.6), 133(16.9) and 60 (7.6) give to their 2nd third forth and above birth respectively. Seven hundred fifty four (95.5) of mothers used ANC while 32(4.1) didn't follow.

Among total respondents six hundred eighteen (78.6) had duration of labor less than 12hours and 168(21.4) was within 12hour or more hrs. Place of delivery for most respondents 730(92.9) were institutional delivery whereas 56(7.1) of them use home delivery.

About 359(48.6) of respondents decide their place of delivery by their own while 308(41.7) give decision being with their husband few decisions 58(7.8), 14(1.9) were given by their husband and others respectively. Majority of mother 663(89.7) use institutional delivery by their own preference as compared to few respondents 76(10.3) those who use due to previous obstetrics complications.

Table -2: Obstetric characteristics of WRA (15-49) in Nifas Silk Lafto Sub -city, Addis Ababa, 2015 (N=786)

Variable	Frequency	Percent
Age at first delivery grouped		
Less than 20years	134	17.0
20-24 years	339	43.1
25-29years	237	30.2
30+years	76	9.7
Number of life-time pregnancy		
Once	312	39.7
Twice or more	474	60.3
Number of Live births		
0	14	1.7
1	311	39.6
2 or more	461	58.7
Age at last delivery grouped		
< 20years	56	7.1
20-24 years	192	24.4
25-29years	303	38.5
30-34years	167	21.3
35+above years	68	8.7
Birth order of your last child		
First	329	41.9
Second	264	33.6
Third	133	16.9
Forth or more	60	7.6
Duration of labour		
Less than 12 hours	618	78.6
12 hours or more	168	21.4
ANC for the first child		
No	32	4.1
Yes	754	95.9
Place of delivery for the last child		
Home	56	7.1
Health Institution	730	92.9
Who decide Place of delivery(N=739)		
My self	359	48.6
My husband	58	7.8
Both of us	308	41.7
Others	14	1.9
Reason for institutional Delivery Services(N=739)		
Preference /usual practice	663	89.7
Previous bad experience	76	10.3

Association of socio demographic variable and place of delivery

A crud analysis was done using binary logistic regression to assess association between the socio-demographic variable and place of delivery ($P < 0.05$) however age of respondents, religion and ethnicity were not significantly associated with place of delivery.

A significant association was seen between respondent educational statuses with place of delivery those who were from secondary and above were 11.5 times more likely use institutional delivery as compared to other level of education. [COR: 11.5, 95%CI: (5.1, 26.1)]. Married women 3 times more likely use instructional delivery than currently un-married one [COR: 3.1, 95%CI: (1.4, 7.1)].

Similarly husband education showed significant association women whose husband are educated were more likely use institutional delivery than those who have illiterate husband. [COR: 9.2, 95%CI: (4.1, 21.0)].

The study result also showed women having income 2.5 times [COR: 2.5, (1. 2, 5.2)] more likely use institutional delivery as compared to those having no income. And husband income have significant association with place of delivery which was 7.6 times [COR: 7.6, 95%CI :(2.3, 24.9)].

Mothers whose husbands had occupation use institutional delivery 7.8 times more likely than those who were not employed, [COR: 7.8, 95% CI :(2.8, 22.1)] While mothers having occupation use institutional delivery three times more likely than the unemployed one [COR: 3.3, 95% CI: (1.7, 6.4)].

Table-3: Association of socio demographic Variables and place of delivery of WRA (15-49) in Nifas Silk Lafto Sub -city, Addis Ababa, 2015.

Variable	Place of delivery ID (N=730) Home(N=56)		COR (95%CI)
Age group			
Less than 25 years	134(18.4)	11(19.6)	1.00
25-29 years	263(36.0)	20(35.7)	1.1(0.5,2.3)
30+	333(45.6)	25(44.6)	1.1(0.5,2.3)
Educational status of the respondent			
Illiterate	117(16.0)	26(46.4)	1.00
Primary	198(27.1)	22(39.3)	2.0(1.1,3.7) *
Secondary or above	415(56.8)	8(14.3)	11.5(5.1,26.1)*
Occupation of the woman			
Unemployed	383(52.5)	44(78.6)	1.00
Employed	347(47.5)	12(21.4)	3.3(1.7, 6.4)*
Income of the woman			
less than 500 ETB	54(7.4)	7(12.5)	1.00
500 ETB and above	295(40.4)	5(8.9)	7.6(2.3,25.0)*
No income	381(52.2)	44(78.6)	1.1(0.5,2.6)
Marital status of the woman			
Not married	37(5.1)	8(14.3)	1.00
Married	693(94.9)	48(85.7)	3.1(1.4, 7.1) *
Educational status of the husband			
Illiterate	85(11.6)	16(28.6)	1.00
Primary	154(21.1)	30(53.6)	1.0(0.5,1.9)
Secondary and above	491(67.3)	10(17.9)	9.2(4.1,21.0)*
Occupation of the Husband			
Un employed	11(1.5)	6(10.7)	
Employed	719(98.5)	50(89.3)	7.8(2.8, 22.1)*
Income of the Husband			
Less than 500 ETB	65(8.9)	10(17.9)	1.00
500 ETB and above	650(89.0)	40(71.4)	2.5(1. 2,5.2) *
No income	15(2.1)	6(10.7)	0.4(0.1,1.2)

Association of Obstetrics characteristics with place of delivery

Binary logistic regression was done to assess place of delivery with reproductive variable. No of live birth, age at last delivery, duration of labor, decision place of delivery were not significantly associated with place of delivery.

Age at first delivery was significantly associated to place of delivery mothers within the age range of 25-29years use institutional delivery about 8 times than other age groups [COR: 8.1, 95%CI: (2.9, 22.2)].

Mothers who had twice or more life time pregnancy were less likely use institutional delivery as compared to those who gave birth only once. [COR: 0.2, 95%CI: (0.109, 0.501)]. Similarly as birth order increases to three, four and above utilization of institutional delivery decreases than other birth orders [COR: 0.3, 95%CI: (0.1, 0.6)] and [COR: 0.2, 95%CI: (0.1, 0.5)] .

ANC follow-up was significantly associated to place of delivery mothers who use prenatal care use institutional delivery 6.9 times [COR: 6.9, 95%CI: (3.1, 15.6)] more likely as compared to those who didn't use.

Table.4: Association of Obstetric variables and place of delivery of WRA (15-49) in Nifas Silk Lafto Sub -city, Addis Ababa, 2015.

Variable	Place of delivery		COR(95% CI)
	ID (N=730)	Home(N=56)	
Age at first delivery			
Less than 20years	114(15.6)	20(35.7)	1.00
20-24 years	311(42.6)	28(50.0)	2.0(1.1,4.0) *
25-29years	232(31.8)	5(8.9)	8.1(3.0,22.2) *
30+years	73(10.0)	3(5.4)	4.3(1.2,14.9) *
Number of life-time pregnancy			
Once	304(41.6)	8(14.3)	1.00
Twice or more	426(58.4)	48(85.7)	0.2(0.1,.05) *
Age at last delivery grouped			
< 20years	51(7.0)	5(8.9)	1.00
20-24 years	180(24.7)	12(21.4)	1.5(0.5,4.4)
25-29years	284(38.9)	19(33.9)	1.5(0.5,4.0)
30-34years	152(20.8)	15(26.8)	1.0(0.3,2.9)
35+above years	63(8.6)	5(8.9)	1.2(0.3,4.5)
Birth order of your last child			
First	317(43.4)	12(21.4)	1.00
Second	246(33.7)	18(32.1)	0.5(0.3,1.1)
Third	117(16.0)	16(28.6)	0.3(0.1, 0.6)*
Forth or more	50(6.8)	10(17.9)	0.2(0.1,0.5) *
Duration of labour			
Less than 12 hours	572(78.4)	46(82.1)	1.00
12 hours or more	158(21.6)	10(17.9)	1.3(0.7,2.6)
ANC for the last child			
No	22(3.0)	10(17.9)	1.00
Yes	708(97.0)	46(82.1)	7.0(3.1,15.6)*

Socio demographic Variables, adjusted versus place of delivery

Crude analysis was done by applying chi-square test to assess presence of association between socio demographic variable and place of delivery. Among the socio demographic variables, respondent and husband education as well as occupation and monthly income of both respondent and husband and family were significantly associated with place of delivery (P-value <0.05).

But by applying logistic regression, when adjusted for socio-demographic variable only respondent educational status was significantly associated with place of delivery (P-value, 0.05). Mother who have education secondary or above were 4 times more likely to use institutional delivery than those who have no education. [AOR: 3.6, 95%CI: (1.2, 11.1)].

Husband education their occupations and income have shown no significant difference with place of delivery those who deliver in health institution and home.

Table-5 Socio demographic Variables, versus place of delivery adjusted of WRA (15-49) in Nifas Silk Lafto Sub -city, Addis Ababa, 2015.

Variable	Place of delivery ID(N=730) Home (N=56)		COR (95%CI)	AOR (95%CI)
Age group				
Less than 25 years	134(18.4)	11(19.6)	1.00.	1.00
25-29 years	263(36.0)	20(35.7)	1.1(0.5,2.3)	0.8 (0.3,1.8)
30+	333(45.6)	25(44.6)	1.1(0.5,2.3)	0.6 (0.3,1.4)
Educational status of the respondent				
Illiterate	117(16.0)	26(46.4)	1.00	1.00
Primary	198(27.1)	22(39.3)	2.0(1.1,3.7)	1.6 (0.8, 3.1)
Secondary or above	415(56.8)	8(14.3)	11.5(5.1,26.1)*	3.6 (1.2, 11.1)*
Occupation of the woman				
Unemployed	383(52.5)	44(78.6)	1.00	1.00
Employed	347(47.5)	12(21.4)	3.3(1.7, 6.4)*	0..8(0.1, 30.3)
Income of the woman				
less than 500 ETB	54(7.4)	7(12.5)	1.00	1.00
500 ETB and above	295(40.4)	5(8.9)	7.6(2.3,25.0)*	1.2 (0.3, 5.5)
No income	381(52.2)	44(78.6)	1.1(0.5,2.6)	0.3 (0.1, 13.3)
Marital status of the woman				
Not married	37(5.1)	8(14.3)	1.00	1.00
Married	693(94.9)	48(85.7)	3.1(1.4, 7.1)*	1.9(0.5, 6.9)
Educational status of the husband				
Illiterate	85(11.6)	16(28.6)	1.00	1.00
Primary	154(21.1)	30(53.6)	1.0(0.5,1.9)	0.7 (0.3, 1.5)
Secondary and above	491(67.3)	10(17.9)	9.2(4.0, 21.0) *	2.9 (0.9, 8.6)
Occupation of the Husband				
Un employed	11(1.5)	6(10.7)	1.00	1.00
Employed	719(98.5)	50(89.3)	7.8(2.8, 22.0)*	1.7(0.3, 8.9)
Income of the Husband				
Less than 500 ETB	65(8.9)	10(17.9)	1.00	1.00
500 ETB and above	650(89.0)	40(71.4)	2.5(1. 2,5.2) *	1.1(0.2, 7.4)
No income	15(2.1)	6(10.7)	0.4(0.1,1.2)	0.2(0.1, 1.3)

Obstetric variable adjusted for women place of delivery

when crud analysis was done by applying Chi-square test to see the association between reproductive variables with place of delivery, showed that Age at first delivery, no of life time pregnancy, birth order, ANC attendance and reason for institutional delivery were having significant association with place of delivery (P-value,<0.05).

By logistic regression when adjusted for reproductive variables only birth order showed significant association with place of delivery (P<0.05). Age at first delivery, no of life time pregnancy as well as ANC attendance showed no significance difference with place of delivery (P-value, <0.05).

Table -6 Obstetric variables adjusted verses place of delivery of WRA (15-49) in Nifas Silk Lafto Sub-City, Addis Ababa 2015

Variable	Place of delivery		COR(95%CI)	AOR(95%CI)
	ID(N=730)	Home (N=56)		
Age at first delivery				
Less than 20years	114(15.6)	20(35.7)	1.00	1.00
20-24 years	311(42.6)	8(50. 0)	1.9(1.1,4.0)	6.4 (0.7,60.6)
25-29years	232(31.8)	5(8.9)	8.1(2.9,22.2)*	8.8 (0.6,13.5)
Number of life-time pregnancy				
Once	304(41.6)	8(14.3)	1.00	1.00
Twice or more	426(58.4)	48 (85.7)	0.2(0.1,0.5) *	0.2(.01, 10.6)
Age at last delivery grouped				
< 20years	51(7.0)	5(8.9)	1.00	1.00
20-24 years	180(24.7)	12(21.4)	1.5(0.5,4.4)	0.5(0.1, 13.5)
25-29years	284(38.9)	19(33.9)	1.5(0.5,4.0)	0.5(0.1, 29.9)
30-34years	152(20.8)	15(26.8)	1.0(0.3,2.9)	0.3(0.1, 1.5)
35+above years	63(8.6)	5(8.9)	1.2(0.3,4.5)	0.2(0.1, 3.1)
Birth order of your last child				
First	317(43.4)	12(21.4)	1.00	1.00
Second	246(33.7)	18(32.1)	0.5(0.3,1.1)	25.1(2.6, 246.9)
Third	117(16.0)	16(28.6)	0.3(0.1,0 .6)*	29.3(2.2, 396.7)*
Duration of labour				
Less than 12 hours	572(78.4)	46(82.1)	1.00	1.00
12 hours or more	158(21.6)	10(17.9)	1.3(0.6,2.6)	0.9(0.1, 7.7)
ANC for the last child				
No	22(3.0)	10(17.9)	1.00	1.00
Yes	708(97.0)	46(82.1)	7.0(3.1,15.6)*	17.6(0.9, 357.6)

Multivariate Analysis

Logistic technique was used to assess the relationship between multiple independent and dependent variables. To control the confounders only variable reached a p-value less than 0.25 were kept in the analysis. From the socio demographic variables entered for analysis educational status of respondents, women occupation, women-income, marital status, husband's educational status, occupation of husband and husband income, out of which only respondent educational status have significant association. The odd of utilizing institutional delivery among educated respondents were 3.5 times [OR 3.5, 95% CI: (1.1, 10.7)] higher than that of illiterate mothers. Among reproductive variables kept for analysis ANC showed significant association. The chance of institutional delivery utilization for those mothers who attended ANC was 6.4 times [OR 6.4, 95% CI: (2.4, 16.9)] more likely than that of not attained ANC.

Table -7 Multivariate analysis of factors associated with utilization of institutional delivery among WRA (15-49) in Nifas Silk Lafto Sub -city, Addis Ababa, 2015.

Variable	Place of delivery ID(N=730) Home (N=56)		AOR (95%CI)	P-value
Educational status of the respondent				
Illiterate	117(16.0)	26(46.4)	1.00	0.17
Primary	198(27.1)	22(39.3)	1.6 (0.8 , 3.2)	
Secondary or above	415(56.8)	8(14.3)	3.5(1.1 , 10.7)	
Occupation of the woman				
Unemployed	383(52.5)	44(78.6)	1.00	0.88
Employed	347(47.5)	12(21.4)	0.7 (0.1, 35.4)	
Income of the woman				
less than 500 ETB	54(7.4)	7(12.5)	1.00	0.49
500 ETB and above	295(40.4)	5(8.9)	1.7(0.4, 7.1)	
No income	381(52.2)	44(78.6)	0.5 (0.01 , 26.2)	
Marital status of the woman				
Not married	37(5.1)	8(14.3)	1.00	0.52
Married	693(94.9)	48(85.7)	1.5(0.5, 4.7)	
Educational status of the husband				
Illiterate	85(11.6)	16(28.6)	1.00	0.14
Primary	154(21.1)	30(53.6)	0.6(0.3, 1.2)	
Secondary and above	491(67.3)	10(17.9)	2.4(0.8, 7.1)	
Occupation of the Husband				
Un employed	11(1.5)	6(10.7)	1.00	0.26
Employed	719(98.5)	50(89.3)	2.5 (0.5 , 12.4)	
Income of the Husband				
Less than 500 ETB	65(8.9)	10(17.9)	1.00	0.69
500 ETB and above	650(89.0)	40(71.4)	1.2 (0.5, 3.0)	
No income	15(2.1)	6(10.7)	0.9(0.1 , 5.2)	
ANC for the last child				
No	22(3.0)	10(17.9)	1.00	0.01
Yes	708(97.0)	46(82.1)	6.4 (2.4 , 16.9)	

6 .Discussion

This study tried to assess factors which influence magnitude and utilization of institutional delivery in urban text based on several assumptions. The study showed that institutional delivery service utilization in the study area/woreda was high as compared to study conducted in Adigrat town institutional delivery (85.2%) and Sodo Town 62.2% respectively (30,31). This might be due to high ANC coverage in which there is a good counseling about birth preparedness and complication readiness and, the near availability of health facility.

The result of the present study revealed that the use of skilled birth attendants in health institution is significantly influenced by level of education. Women with higher level of education (secondary and above) were four times more likely to use safe delivery service than those with lower educational level. They might have the power to make their own decision in matters related to their place of delivery and this finding is also consistent with results of other study conducted before which shows that women who are educated are more likely to deliver in health facility (32).

The result was similar with the study done in Kenya, women with secondary or higher education is significantly likely to use appropriate health facilities for delivery than those with no formal education. And also this study is in line with study in Pakistan 33% of women with no education, compared to 48% with who had completed primary education and 73% with matriculate or higher education had their last delivery at a health facility (9, 10, 11, 12, and 13).

And this result was lower than study done in North Gondar Zone, mothers whose educational status was secondary high school and above were about 11 times more likely to give birth at health institutions than women with other level of education (10). This result is higher than study done in India which shows Women's with higher education were more likely to undergo skilled institutional delivery, which is two times more likely than those who have no education (12).

On the other hand a study done in Ethiopia indicates women with no education were less likely to use the service. The odds of use of such services was four and a half times and eight times

higher for women with primary and secondary or higher levels of education, respectively, compared to women with no education (13). This might be due to the fact that educated women had better awareness about the benefits of preventive care and health services. They might also give attention to health related information and better communication with husbands.

According to the study result women's of high birth orders were more likely use institutional delivery service than that of first birth order and this is different from study done in Rwanda, and in rural India (21, 22). Lower utilization of maternal health care among multi parious women could be time and resource constraints faced by those with large families and greater experiences of higher parity women with pregnancy and child birth.

Study done in Sekela district, North West of Ethiopia indicates that the age of mother has contribution to institutional delivery. Mothers with age range 15–24 years were about 4times more likely to give birth in health institutions than mothers with age 35 years and above (8). These results were different from the current study result which could be due to most women give birth at older age within the range of 25-29 due to women involvement in education in early age and older age women also tend to skilled delivery due to improvement women's awareness' and accessibility of the facility.

Study done in Busia district of Uganda (14) and in rural India indicates husbands' educational level was also one of the factors that predicted health institution delivery. (15). These study result were also different from current study this might be due to the women's awareness and understanding is getting better than earlier time and as women get educated understand the benefit of skilled delivery they may take lead to negotiate with their husband to use skilled delivery.

In this study institutional delivery utilization among ANC users were six time higher [OR 6.4, 95% CI: (2.4, 16.9)] than that of non users. This result is higher than the study done in Goba woreda, Ethiopia which showed that mothers who had ANC visits during the last pregnancy were about three times more likely to deliver at health facilities compared to those who did not have any visit (33). And it is consistent with other study done on Determinants of maternal health care utilization in Holeta town, central Ethiopia which shows 87% of the women had at

least one antenatal visit during their last pregnancy. This might be due to the ANC service delivery exposure give chance for health provider to approach mother and inform importance of skilled delivery (34).

Finally since the study is conducted in a sub-city of the capital city where health facilities are optimally available, the findings can only be generalized to similar settings with comparable socio demographic and health coverage profile. Hence similar studies in various settings to come up with more representative findings which will be helpful in planning and implementing more contextual interventions to improve the delivery service utilization in a country.

7. Strength and limitation of the study

7.1 Strength of the study

- The survey is community based which is very approximate to the reality.
- The study subjects were selected by simple random sample and the respondent rate were almost all 98.9%.
- Data collectors were 12 grades complete who have exposure and experience in data collection.

7.2 Limitation of the study

The finding of this study should be interpreted with the following limitations.

- This study did not include different woredas' in the sub-city, which might affect it's generalize ability.
- The study was not supported by qualitative method.
- Being cross-sectional study means make it difficult to establish causality.
- As the study included five year retrospective cross-sectional, the possibility of recall bias of events was likely.

8 Conclusion and Recommendation

8.1. Conclusion

This study comes up with the following conclusions.

- The study showed that majority of respondent mothers use institutional delivery and also presence of home delivery.
- It showed women whose educational level was primary secondary or above was important predictor of institutional delivery.
- ANC follow-up helps mothers to use institutional delivery.

8.2 Recommendation

- As women's education is an important factor for the institutional delivery, improving education among girls' beyond the primary school, needs to be strongly encouraged.
- Promoting utilization of institutional delivery among illiterate and low birth order mothers to get and improving access to institutional delivery service.
- Reaching out more women to provide the relevant information about ID services might help in promoting utilization of the services.
- Similar studies should be conducted in various settings (both similar and different settings) to come up with more representative findings, which will be helpful in designing interventional activities targeted at improving ID service utilization.

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Annexes:

English version Information sheet and English questionnaire

English Version Information Sheet and Consent form

English version information sheet and consent form for the questionnaire developed for the assessment of factors influencing the utilization of institutional delivery service in Nifas Silk Lafto sub-City Addis Ababa, Ethiopia

A. Information Sheet

IDENTIFICATION

Name of the Institute _____

Address of the Institute _____

Greeting:

Hello, how are you?

My name is _____. I am data collector on behalf of a Masters Student in AAU, college of health sciences school of public health, who want to conduct this survey.

The objective of the study- is to assess the level of utilization of institutional delivery service in this sub city, which will be important to improve the health service delivery of the sub city. Your cooperation and willingness for the interview is very helpful in identifying the problems related to the issue your name will not be written in the form and I assure you that all information that you give will be kept strictly confidential. Your participation is voluntary and you are not obliged to answer any question you do not wish to answer. If you are not still comfortable with interview, please be free to stop me any time you like there is no harm if you not answer the questions and no special benefit you get if you answer the question the interview will take 30- 45 minutes. I would like to interview you few questions about utilization of institutional delivery do I have your permission to continue.

We would be thankful if you spend some time with us answering questions related to the issues described above.

1. If yes, Name of interviewer_____ Signature_____
2. If not, skip to the other participant

For more information and question if there is here is the contact address of investigator.

Zubeida Abdulkadir

Tele 0911440395

E-mail zalkadir@yahoo.com

B. Consent form

I _____ am informed on study to be conducted by Masters Student in AAU, college of health sciences school of public health on the level of maternal institutional delivery Service utilization, objective of the study and participation to this study is voluntary no obligation to answer any questioner there is no harm by not answering the questions and no special benefit by answering the question and also the interview will take 30- 45 minutes .I heard all the information mentioned above and willing to participate in the interview.

1. Name of interviewer_____ Signature_____

(Signature of interviewer certifying that respondent has given informed consent verbally)

Addis Ababa University College of Health Sciences School of Public Health A structured questionnaire for interview to assess factors influencing utilization of institutional delivery services in Nifas Silk Lafto Sub –City Addis Ababa, Ethiopia.

English Questionnaires

1. Households identification

0001. Questionnaire code _____

0002. Ketena number _____

0003. House Number _____

Instruction: Circle the responses for questions with alternatives and write for open ended questions on the space provided

Part I: Respondents Socio-demographic characteristics

S. No	Questions	Alternative/choice of response	Skip
0101	Age in completed years	Years	
0102	Educational status	1. Illiterate 2. Grade 1-4 3. Grade 5-8 4. Grade 9-12 5. Diploma 6. Degree and above 7. Don't know	
0103	Religion	1. Orthodox 2. Muslim 3. Catholic 4. Protestant 5. Other (specify)	
0104	Ethnic group	1. Amhara 2. Oromo 3. Tigre 4. Gurage 5. Other specify_____ 6. Don't know	
0105	Occupation	1. Unemployed 2. Self employed	

		3. Government Employee 4. NGO employee 5. Other (specify)_____ 6. Don't want to answer	
0106	Your monthly in come	1. < 500 birr 2. 501-1000 birr 3. 1001-2000 birr 4. .>2000 birr 5. Don't know	
0107	Current marital status	1. Single 2. Married 3. Divorced 4. Separated 5. Widowed 6. Others, specify	
0108	Educational status of your husband?	1. Illiterate 2. Grade 1-4 3. Grade 5-8 4. Grade 9-12 5. Diploma 6. Degree and above 7. Don't know	
0109	Occupation of your husband	1. Unemployed 2. Self employed 3. Government Employee 4. NGO employee 5. Other (specify)_____ 6. Don't know	
0110	Monthly income of your house band	1. < 500 birr 2. 501-1000 birr 3. 1001-2000 birr 4.. >2000birr 5. Don't know	
0111	What is the average monthly income of the family(house hold) in Eth. Birr	1. < 500 birr 2. 501-1000 birr 3. 1001-2000 birr 4. .>2000 birr 5. Don't know	

Part II: Obstetric questions to all women

S.No	Questions	Alternative/choice of response	Skip
0112	What was your complete age at the time of your first delivery?	years	

0113	How many times you have been pregnant in your life? Probe for 1. Total no of live birth----- 2. Abortions----- 3. Still births----- 4. No died within 7days----- 5. No died b/n 7 days & 1 year----- 6. Others specify.....	1. Once (2) 2-4 times (3) Five and more times	
0114	What was your age at the time of your last delivery? (Name the last child)	years	
0115	Can you tell me the name of your last child? What was the birth order of the last child? (Name the last child)	1. First birth order 2. Second birth order 3. Third birth order 4. Fourth birth order 5. Fifth birth order 6. Sixth birth order 7. 7+ birth order	
0116	How long was the duration of labor?	1. Less than 1 day (<12 hrs) 2. day and 1 night (24 hrs) 3. 2 days and 2nights (48 hrs) 4. Do not exactly remember 5. Others, specify	
0117	Where did you deliver your last child (Name the last child)?	1. At home 2. In Health institution 3. Others, specify	
0118	Have you attended prenatal follow up during the pregnancy of the last birth (Name the last child)?	1. Yes 2. No	→ 122
0119	If yes to 0118, how many times you attended prenatal care?	1. One time 2. Two times 3. Three times 4. Four and above times	
0120	If yes to 0118, where was your place of delivery?	1. At home 2. Health institution 3. Others, specify	
0121	If yes to 118, what was your reason for attending prenatal care?	1. The health institution is close 2. The health workers attitude is well coming 3. Beneficial for my health and my fetus 4. Others, specify	
0122	If no to 0118, where was your place of delivery?	1. At home 2. In Health institution 3. Others, specify	
0123	If no to 0118, what was your reason for not attending ANC follow-up?	1. Lack of awareness 2. Health workers are not friendly 3. Others, specify	

Part III. Questions for women who delivered at home
(Ask only if she delivered at home, if not skip to 0131)

S. No	Questions	Alternative/choice of response	Skip
0124	Why did you deliver the last child (Name the last child) at home?	1. Lack of money for health service fee 2. Unwell coming attitude of Health workers 3. It is my preference 4. Others, specify	
0125	Which of the following people have attended your last delivery?	1. Health workers (SDA) 2. Health extension workers 3. TBAs 4. Others specify	
0126	Have you faced any health problems during pregnancy, labor and childbirth?	1. Yes 2. No	→ 0130
0127	If yes to 0126, which of the following problems you encountered?	1. Excessive vaginal bleeding 2. Mal presentation 3. Prolonged labor (>24 hours) 4. Retained placenta 5. Other people, specify	
0128	What measures were taken to alleviate your problem?	1. Nothing 2. Taken to the health facility 3. Took traditional medicine 4. Others, specify	
0129	To which health facility have you been taken at the time of your problem?	1. Hospital 2. Health Centre 3. Clinic 4. Others, specify	

Part IV. Questions for women who delivered at the Health Facility
(Ask only if she gave birth at the Health Facility)

S.No	Questions	Alternative/choice of response	Skip
0130	Who made the final decision about your place of delivery?	1. Just me 2. My husband 3. Both of us 4. Mother-in-law 5. My mother 6. Other people, specify	
0131	Why did you deliver in the health facility?	1. It was my preference 2. It is my usual practice 3. Based on my previous bad Experience from home delivery 4. I have faced obstetric problems which forced me to deliver in health facilities 5. Others specify.	
0132	To which health facility have you been taken at the time of your last delivery?	1. Hospital 2. Health Centre 3. Clinic 4. Other people, specify	

0133	What was the means of transportation you used to go to the health facility?	1. On foot 2. By car (private) 3. Ambulance 4. Taxi 5. Other specify	
0134	How do you rate the price of transportation service?	1. Very expensive 2. Expensive 3. Fair 4. Free 5. Others, specify	
0135	How do you rate the distance it takes to reach the nearby Health facility?	1. Very far (1hours) 2. Far (30 min-1 hours) 3. Closer (30 min) 4. Very close(Less than 15 min) 5. Other people, specify	
0136	Were you referred to Hospital from the nearest health unit you have been taken to?	1. Yes 2. No 3. I do not remember 4. Others, specify	
0137	What was the mode of delivery?	1. Spontaneous vaginal delivery(SVD) 2. Assisted vaginal delivery (AVD) 3. Caesarean section (C/S) 4. Others specify	
0138	How do you rate the cost of delivery service?	1. Very expensive 2. Expensive 3. Easy 4. Free 5. Others specify	
139	Based on your experiences from your last child (Name of last child) birth, how do you rate the following, with regard to institutional delivery services?	1. Very good 2. Good 3. Bad 4. Others, specify	
139A	Approach of health workers		
139B	Service delivery of the health institutions you have given birth to	1. Very good 2. Good 3. Bad 4. Others, specify	
0140	What was the suggestion of the following people while you were trying to get institutional delivery services?	1. He encouraged me 2. He discouraged me 3. He gave no suggestions 4. I don't remember 5. Others, specify	
140A	Your husband		
140 B	Your mother-in- low and/or Father-in-low	1. They encouraged me 2. They discouraged me 3. They gave no suggestions 4. I don't remember 5. Others, specify	
140C	Your parents/ relatives	1. They encouraged me 2. They discouraged me 3. They gave me no suggestions 4. I don't remember 5. Others, specify	

140D	Other influential people	1. They encouraged me 2. They discouraged me 3. They gave no suggestions 4. I don't remember 5. Others, specify	
0141	Based on your experience and delivery outcome from your last childbirth in health facility, what would be your preference for future place of delivery?	1. Institutional delivery 2. Home delivery 3. No preference 4. Others, specify	→ 0143 → 0144 → 0144
0142	If you prefer institutional delivery what is your main reason?	1. I am satisfied with the quality of delivery services in health facilities 2. I had better outcome in terms of my health 3. It had better outcome in terms of the health of the newborn 4. I have observed that some of the problems that I faced during delivery, could not have been handled at home 5. Others specify	
0143	If you prefer home delivery what is your main reason?	1. I am not satisfied with the quality of services in the health facilities 2. have faced poor outcome from institutional delivery 3. The newborn has faced poor out come from institutional delivery 4. I felt that, the delivery services in the health facilities are not different from delivering at home 5. Others, specify	
0144	How do you rate the easiness for you to get institutional delivery services if the need arises?	1. Very easy 2. Easy 3. Difficult 4. Others, specify	
0145	During the progress of your labor at home imagine that you have faced any of the following situations. For which one of the following do you think that you will most likely go to health facilities for delivery assistance?		
0145A	Excessive vaginal bleeding	1. Yes 2. No 3. Others, specify	
0145B	Unusually prolonged duration of labor	1. Yes 2. No 3. Others, specify	
0145C	Cessation of fetal movement	1. Yes 2. No 3. Others, specify	
0145D	Cessation of labor before delivery	1. Yes 2. No 3. Others, specify	

Thank you very much for your time. I finished my questions

Amharic version information sheet and consent form

በአዲስ አበባ ዩኒቨርሲቲ ጤና ሳይንስ ኮሌጅ የህብረተሰብ ጤናት/ቤት

በጤና ድርጅት በነፍሰጡሮች ወሊድ አገልግሎት ላይ የሚያጋጥሙ ችግሮችን ለማጥናት የተዘጋጀ መጠይቅ፡፡

1. ለጥናቱ ተሳታፊ የሚሰጥ መረጃ፤

ጤና ይስጥልኝ፤ ስሜ----- ይባላል፡፡ በአዲስ አበባ ዩኒቨርሲቲ የድህረምረቃ ጥናት ቡድን አባል ነኝ፡፡

የጥናቱ ዓላማ፡እናቶች በጤና ድርጅት የሚሰጠውን የወሊድ አገልግሎት አጠቃቀም ምን እንደሚመስል ማዳሰስ ይሆናል፡፡

በዚህ መሰረት ከጥናቱ የሚገኘው ውጤት በወሊድ አገልግሎት ዙሪያ የእናቶች የአጠቃቀም ሁኔታና የሚታዩ ችግሮች ለወደፊቱ አገልግሎቱን ለማሻሻል የሚጠቅም የመፍትሔ ሀሳቦችን ለማመላከት ይረዳል፡፡የርስዎ በዚህ ጉዳይ ላይ መሳተፍ ለጥናቱ ከፍተኛ አስተዋፅኦ ይኖረዋል፡፡ስምዎን በማንኛውም መልኩ አይገለጽም፡፡የሚሰጡን መረጃ ሚስጥር የተጠበቀ ይሆናል፡፡ በጥናቱ መሳተፍ በእርስዎ ሙሉ ፈቃደኝነት ላይ የተመሰረተ ይሆናል፡፡ በጥናቱ ባለመሳተፍዎ የሚጎዱት ነገር ወይም በመሳተፍዎ ብቻ የሚያገኙት የተለየ ጥቅም የለም፡፡ ጥያቄውን በከፊልም ሆነ በሙሉ ለመመለስ ካልተመችዎት ማለፍ አሊያም በመሃልማቁዋረጥ ይችላሉ፡፡ጥያቄዎቹ በአማካይ ከ30-45 ደቂቃዎችን ይወስዳሉ፡፡መልካም ፈቃድዎ ከሆነ ወደ ጥያቄና መልስ ውይይት መግባት እንችላለን?

1. ፍቃደኛ ከሆኑ የቃለመጠይቁ ጠያቂ ስም ----- ፊርማ -----

2. ፈቃደኛ ካልሆኑ ወደሚቀጥለው ተሳታፊ ይሄዱ

ለተጨማሪ መረጃ፤ ጥያቄወይም አስተያየት ካለዎት በሚከተለው አድራሻ ማግኘት ይቻላል፡፡

ዙቤይዳ አብዱልቃድር

ስ.ቁ. 09114440395

ኢ.ሜይል zalkadir@yahoo.com

2. የእናቶች የተሳትፎ ስምምነት መግለጫ ቅጽ፤

እኔ-----በአዲስ አበባ ዩኒቨርሲቲ የህብረተሰብ ጤና ትምህርት ቤት የድህረ ምረቃ ቡድን አባል የእናቶች በጤና ድርጅት የሚሰጠውን የወሊድ አገልግሎት አጠቃቀም ምን እንደሚመስል ለማዳሰስ በሚደረግ ጥናት ላይ የጥናቱ ዓላማና ጠቀሜታ፤በፈቃደኝነት ላይ የተመሰረተ ተሳትፎ መሆኔ፤ በጥናቱ መሳተፍም ሆነ ያለመሳተፍ የተለየ ጥቅም የማያስገኝ መሆኔንና መጠይቁ ከ30-45 ቀዲቃ ያህል የሚፈጅ መሆኑ ተገልጾልኛል፡፡እኔም ከላይ የተሰጠውን ማብራሪያ ሰምቼ ለመሳተፍ ፈቃደኛ መሆኔን አገልግለሁ፡፡

አጠቃላይ የቤተሰብ መረጃ

01. የመጠየቂያ መለያ ቁጥር

02. ቀጠና 1. ሁለት ----- 2. ሦስት ----- 3. አራት

03. የቤት ቁጥር

መጠይቆች: ክፍል አንድ የተጠያቂው አጠቃላይ የማህበራዊና ኢኮኖሚያዊ መረጃ በተመለከተ የተጠያቂውን መልሶች በመልስ መስጫው ቦታ ላይ አክብብባቸው፡፡

ተ.ቁ	ጥያቄ		አለፍ
0101	እድሜዎ ስንት ነው;	----- ዓመት	
0102	የትምህርት ደረጃዎ እስከ ስንት ነው	1. የልተማረ 2. 1-4 ክፍል 3. 5-8 4. 9-12 5. ዲፒሎማ 6. ዲግሪና ከዚያ በላይ 7. አላውቅም	
0103	የየትኛው ሃይማኖት ተከታይ ነዎት	1. ኦርቶዶክስ 2. እስላም 3. ካቶሊክ 4. ፕሮቴስታንት 5. ሌላ ካለ	
0104	የየትኛው ብሄረሰብ አባል ነዎት	1. አማራ 2. ኦሮሞ 3. ትግሬ 4. ጉራጌ 5. ሌላ ካለ 6. አላውቅም	
0105	የመተዳደሪያ ሥራዎ ምንድነው	1. ሰራ አጥ 2. የግል ተቀጣሪ 3. የመንግስት ተቀጣሪ 4. መንግስታዊ ያልሆነ ድርጅት ተቀጣሪ 5. ሌላ ካለ ጥቀስ 6. አላውቅም	
0106	ከዚህ ስራ በወር ምን ያህል ገቢ ያገኛሉ_	1. <500 ብር 2. 501-1000 ብር 3. 1001-2000 ብር 4. > 2000 ብር 5. ሌላ ካለ ይጥቀሱ	
0107	የጋብ ቻሁኔታ ቢገልጹልን	1. የላገባ 2. ያገባ 3. የተፋቱ 4. የተለያዩ 5. የሞተባት 6. ሌላ ካለ	
0108	የባለቤትዎ የትምህርት ደረጃ እስከ ስንት ነው	1. የልተማረ 2. 1-4 ክፍል 3. 5-8 4. 9-12	

		5. ድርሰት 6. ዲግሪና ከዚያ በላይ 7. አላውቅም	
0109	የባለቤትነት መተዳደሪያ ስራ ምንድን ነው	1. ሰራተኛ 2. የግልተቀጣሪ 3. የመንግስትተቀጣሪ 4. መንግስታዊያልሆነድርጅተቀጣሪ 5. ሌላካለይጥቀሱ 6. አላውቅም	
0110	ባለቤትነት ከዚህ ስራ ምን ያህል ገቢ ያገኛል	1. <500 ብር 2. 501-1000 ብር 3. 2000 ብር 4. >20000 ብር 5. ሌላ ከሌለ ይቀጥሉ	
0111	አጠቃላይ ወርሃዊ የቤተሰብ ገቢ ምን ያህል ነው	1. <500 ብር 2. 501-1000 ብር 3. 1001-2000 ብር 4. >20000 ብር 5. ሌላ ከሌለ ይቀጥሉ	

ክፍል ሁለት ስነ- ተዋልዶና ፅንሰ ሀ-ኔታ

0112	የመጀመሪያ ልጅዎን ሲወልዱ እድሜዎት ስንት ነበር	-----አመት	
0113	እስከዛሬ ምን ያህል ጊዜ አርግዘዋል	1. አንድ ጊዜ 2. 2-4 ጊዜ 3. 5 እና ከዚያ በላይ	
	1. በህይወት የተወለደብዛት--- 2. የውርጃ ብዛት--- 3. ሞቶ የተወለደብዛት--- 4. ከ7 ቀናት በኋላ የሞቱብዛት--- 5. ከአንድ አመት በላይ የሞቱ -- 6. ሌላ ካለ ይግለጹ-		
0114	የመጨረሻ (የአሁኑን) ሲወልዱ ዕድሜዎ በአመት ስንት ነበር	----- አመት	
0115	የአሁኑ የመጨረሻ የወለዱት ስንተኛ ልጅዎ ነው	1. አንደኛ 2. ሁለተኛ 3. ሦስተኛ 4. አራተኛ 5. አምስተኛ 6. ስድስተኛ 7. ሰባተኛ	
0116	ምጥ ለምን ያህል ጊዜ ቆየቦት	1. ግማሽ ቀን 12 ሰዓት 2. አንድ ቀንና አንድ ሊሊት 3. ሁለት ቀንና ሁለት ሊሊት 4. በእርግጠኝነት አላስታውስም 5. ሌላ ካለ ይትቀሱ	
0117	የመጨረሻ ልጅዎን የት ነው የወለዱት	1. ጤና ድርጅት 2. ቤት 3. ሌላካለይግለጹ	
0118	በዝህ እርግዝናዎ የፅንሰ ክብካቤ ምርመራ አድርገው ነበር	1. የለም 2. አዎ	→ 123

0119	መልስዎት አዎ ከሆነ ለስንተኛ ጊዜ ከተትል አደረጉ	1. አንድ 2. ሁለት 3. ሦስት 4. አራትና ከዚያ በላይ	
0120	ለጥያቄ ቁ.118 መልስዎ አዎከሆነ የወለዱትበት ቦታ ዬት ነበር	1. ቤት 2. ጤና ድርጅት 3. ሌላ ካለ ይግለጹ	
0121	ለጥያቄ.118 መልሱ አዎ ከሆነ የተከታተሉበት ምክንያት ቢገልጹልን	1. የጤና ድርጅቱ ቅርብ መሆኑ 2. የጤና ባለሙያዎች አቀራረብ 3. ለልጄና ለራሴ ጥቅም በማሰብ 4. ሌላ ካለ ይግለጹ	
0122	ለጥያቄ ቁ.118 መልሱ የለም ከሆነ የትነው የወለዱት	1. ቤት 2. ጤና ድርጅት 3. ሌላካለይትቀሱ	
0123	ለጥያቄ ቁጥር118የለምከሆነከትትል ያላደረጉበት ምክንያት ምንድን ነበር	1. ጥቅሙን ባለማወቅ 2. የባለሙያ አቀራረብ ጥሩ አለመሆን 3. ሌላ ካለ ይግለጹ	

ክፍል: ሶስት ቤት ለወለዱት እናቶች የተዘጋጀ ቤት ካልወለዱ ወደ ጥያቄ ቁጥር 131 እለፉ

ተ.ቁ	ጥያቄ	አማራጭ ምላሽ	እለፉ
0124	የመጨረሻ ልጅዎን ለምንድነው ቤት መውለድ የመረጡት	1. ገንዘብ እጦት 2. ጤና ባለሙያ አቀራረብ 3. የለመድኩት ስለሆነ 4. ሌላ ካለ ይጥቀሱ	
0125	የመጨረሻ ልጆችን ማን አዋለደዎት	1. ጤና ባለሙያ 2. ጤና እክስቴንሽን 3. ልምድ አዋላጅ 4. የበተሰብ አባል 5. ሌላ ካለ	
0126	በእረግዝና በምጥና በወሊድ ጊዜ የገጠመዎትእክል አለ	1. አዎ 2. የለም	
0127	ለጥያቄ126 መልስዎ ከሆነ ከተዘረዘሩት የቱነውየገጠመዎት	1. ከማህጸን ደም መፍሰስ 2. ያልተለመደ ፅንሰ አቀማመጥ 3. የምጥ መራዘም 4. የእንግዴ ልጅ መቅረት 5. ሌላ ካለ ይግለጹ	
0128	ችግሩን ለመቋቋም ምን እርምጃ ወሰዱ	1. ምንም 2. ወደ ጤና ተቋም ተወሰድኩ 3. ወደ ባህል ህክምና ተወሰድኩ 4. ሌላ ካለ	
0129	ወደ የትኛው ጤና ተቋም ተወሰዱ	1. ሆስፒታል 2. ጤና ጣቢያ 3. ከሊኒክ 4. ሌላ ካለ ይጥቀሱ	

ክፍል አራት መጨረሻ ልጆችን ሐኪም ቤት ለወለዱ ብቻ

0130	ለመውለጃ ቦታዎ የመጨረሻ ውሳኔ የሰጠ ማንነበር	1. እራሴ 2. ባለቤቴ 3. ሁለታችን ተነጋግረን 4. የሱ እናት 5. እናቴ 6. ሌላ ካለ ይጥቀሱ	
0131	በጤና ድርጅት መውለድ የመረጡበትን ምክንያት ቢገልጹልን	1. ምርጫዬ ስለሆነ 2. ልምዴ ስለሆነ 3. ቤት በመውለድ ከነበረኝ መጥፎ ትውስታ 4. ማህጸንችግር ስላለብኝ ብዬ 5. 5.ሌላካለይጥቀሱ	
0132	በወሊድ ጊዜ ወደየትኛው ጤናድርጅት ነበር የተወሰዱት	1. ሆስፒታል 2. ጤና ጣቢያ 3. ክሊኒክ 4. የግል ክሊኒክ 5. ሌላ ካለ ይጥቀሱ	
0133	ከቤት ሐኪም ቤት የደረሱት በምን አይነት ትራንስፖርት ነው	1. በእግር 2. በግል መኪና 3. በአምቡላንስ 4. ታክሲ 5. ሌላ ካለ ይጥቀሱ	
0134	የትራንስፖርት አገልግሎትን ዋጋ እንዴት ያዩታል	1. በጣም ውድ ነበር 2. ውድ ነበር 3. ቀላል ነበር 4. ነፃ 5. ሌላ ካለ ጥቀሱ	
0135	የጤና ተቋሙ ርቀት ምን ያህል ነው፡፡	1. በጣም ሩቅአስከፊነት 2. ሩቅ 30ደቂቃ-1 ሰዓት 3. ቅርብ <30ደቂቃ- 4. በጣም ቅርብ<15 ደቂቃ 5. ሌላ ይግለጹ	
0136	ከዚያስ ወደ ሌላ ሀኪም ቤት ተላኩ	1. አዎ 2. አይደለም 3. አላስታውስም 4. ሌላካለይጥቀሱ	
0137	የወሊድ ሁኔታ ምን ይመስል ነበር	1. በባለሙያድጋፍ 2. በስቲቸ 3. በኦፕራሲዮን 4. ሌላካለይጥቀሱ	
0138	የወሊድ አገልግሎት ክፍያውን እንዴት ያዩታል	1. በጣም ውድ ነበር 2. ውድ ነበር 3. ቀላል ነበር 4. ነፃ 5. ሌላ ካለ ጥቀሱ	
0139	ከባለፈው ልምድ በመነሳት የጤና ድርጅት የወሊድ አገልግሎት እንደት ይመዝኑታል	1. በጣም ጥሩ 2. ጥሩ 3. መጥፎ	

139ሀ	የጤና ባለሙያን አቀራረብ	4. ሌላ ካሌ ይጥቀሱ	
0139ለ	የጤና ድርጅቱን እንደጠበቁ ነበር ወይ ያገኙት	1. አዎ ጥሩ ነበር 2. አዎ መጥፎ ነበር 3. የምጠብቀው ነገር አልነበረም 4. ሌላ ካሌ ይጥቀሱ	
0140	ወደ ጤና ድርጅት አገልግሎት ለማግኘት በምሄዱበት ጊዜ ከዝህበታች ተዘረዘሩት ሰዎች አስተያየት ምን ይመስል ነበር	1. አበረታታኝ 2. አጥላላኝ 3. ምንም አላለኝም 4. አላስታውስም 5. ሌላ ካሌ ይጥቀሱ	
140ሀ	የባለቤትዎ ሃሳብ		
0140ለ	የባለቤትዎ እናት/እና የባለቤትዎ አባት	1. አበረታታኝ 2. አጥላላኝ 3. ምንም አላለኝም 4. አላስታውስም 5. ሌላ ካሌ ይጥቀሱ	
0140ሐ	የወላጆችዎና ዘመዶችዎ	1. አበረታታኝ 2. አጥላላኝ 3. ምንምአላለኝም 4. አላስታውስም 5. ሌላካለጥቀሱ	
0140መ	የሌሎች ወሳኝ ሰዎች	1. አበረታታኝ 2. አጥላላኝ 3. ምንምአላለኝም 4. አላስታውስም 5. ሌላካለጥቀሱ	
0141	ከወለዱትልጅ ውጤትና ከባለፉው በጤና ድርጅት መውለድ ልምድዎ በመነሳት ወደፊት ዬት የመውለድ ሀሳብ አልዎት	1. ጤናተቋም 2. ቤት 3. አልወስንኩም 4. ሌላካለጥቀሱ	
0142	በጤና ድርጅት መውለድ ከመረጡ ምክንያቱን ቢገልጹልን	1. በጤናተቋምበሚሰጠውአገልግሎትሰላርካሁ 2. ቤት የማይፈታ ችግር ገጥሞኝ ስለነበር 3. ለተወለደው ልጄ ጥሩ ስለነበረ 4. ቤት የማይገኝ ጥቅም ስላገኘሁበት 5. ሌላ ካሌ ይጥቀሱ	
0143	ቤት መውለድን ከመረጡ ምክንያቱን ቢገልጹልን	1. በአገልግሎቱ ሰላልረካሁ 2. በጤናድርጅት ጥሩ ውጤት ስላላገኘሁ 3. ለተወለደው ልጄ ጥሩ ስላልነበረ 4. ጤና ድርጅት ከሚወለዱት ልዩነቱንሰላለየሁ 5. ሌላ ካሌ ይጥቀሱ	
0144	በጤና ድርጅት የመውለድ ፍላጎቶችቢኖሮት አገልግሎቱን ማግኘትን ምን ይመስላል	1. 1.በጣም ቀላል 2. 2.ቀላል 3. 3.ከባድ 4. 4. ሌላ ካሌ ይጥቀሱ	

0145	ቤት ሆነው፡ ምጥ ቢፋፋምብዎና የሆነ የጤና ችግር ቢገጥምዎ ለየትኛውችግር የጤና ተቋም ሄደዉ የምወልዱ ይመስሎታል ከማህጸን ደም መፍሰስ	1. አዎ 2. አይደለም	
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0145ሀ		3. ሌላ ካሌ ይጥቀሱ	
0145ለ	ምጥ መራዘም	1. አዎ 2. አይደለም 3. ሌላ ካሌ ይጥቀሱ	
0145ሐ	በሆድ ውስጥ የልጅ እንቅስቃሴ ስቆም	1. አዎ 2. አይደለም 3. ሌላ ካሌ ይጥቀሱ	
0145መ	ከወሊድ በፍት የምጥ እንቅስቃሴ ስቆረጥ	1. አዎ 2. አይደለም 3. ሌላ ካሌ ይጥቀሱ	

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: _____

Signature: _____

Date: _____

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

Name: _____

Signature: _____

Date: _____

Annex IV: Assurance of principal investigator

I undersigned here agrees to accept responsibility for scientific ethical and technical conduct of the research project and for provision of required progress reports as per terms and the condition of the research I will communicate to my advisor and other stakeholders involved in this research publications office in effect at the time of grant is forwarded as the result of this application

Name of the student: Zubeida Abdulkadir

Signature-----date-----

Approval of primary advisor

Name of the primary advisor: Assefa Seme (MD, MPH)

Signature-----date-----