



ADDIS ABABA UNIVERSIT
COLLEGE OF HEALTH SCINCES,
SCHOOL OF PUBLIC HEALTH

**ASSESSMENT OF THE MAGNITUDE OF BYPASSING PUBLIC HEALTH
CENTER DELIVERY SERVICE AND ASSOCIATED FACTORS AMONG
POSTNATAL WOMEN IN NEGIST ELENI MEMORIAL HOSPITAL,
SOUTH ETHIOPIA**

INVESTIGETOR; Melesech Elisso (BSc)

ADVISOR; Abiy Seifu (BSc, MPH)

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List of Acronyms and Abbreviations

AAU	Addis Ababa University
ANC	Antenatal Care
BEOC	Basic essential Obstetric Care
BEmONC	Basic Emergency Obstetric and Newborn Care
B/P	Blood Pressure
CEmONC	Comprehensive Emergency Obstetric and Newborn care
CHS	College of Health Sciences
CI	Confidence Interval
DHS	Demographic and Health Survey
EDHS	Ethiopian Demographic and Health Survey
EFY	Ethiopian Fiscal Year
EmOC	Emergency Obstetric Care
EMDHS	EthiopianMini Demographic Health Survey
ETB	Ethiopian Birr
FMOH	Federal Ministry of Health
HC	Health Center
HDA	Health Development Army
HTAHO	Hosanna Town Administration Health Office
HSDP	Health Sector Development Program
MDG	Millennium Development Goal
MOH	Ministry Of Health
MPH	Masters ofPublic Health
NEMGH	Negist Eleni Memorial General Hospital
OR	Odds Ratio
SNNPR	Southern Nation, Nationalities and Peoples Region
SPH	School of Public Health
SSA	Sub Saharan Countries
UNDP	United Nations Development Program
UNFPA	United NationsPopulation Fund
UNICEF	United Nations Children’s Funds
WHO	World Health Organization

ABSTRACT

Introduction: Quality obstetric, medical and nursing care under safe, skilled and well equipped health facilities during pregnancy, child birth and within 6 weeks after birth can reduce the risk of obstetric complications that may cause death or serious illness to the mother, the baby or both. The use of recommended appropriate standard facility in the catchment area for delivery and post partum care strengthen maternal and child health care at individual, community, health care planners and the government level. In developing countries including Ethiopia, bypassing the nearby health facility for childbirth service wastes resources at all levels. However, the magnitude and factors influencing bypassing closer health facilities for childbirth care were not adequately explored.

Objective: To assess magnitude of bypassing public health centers to hospital for childbirth and identify factors associated with bypassing in postnatal women in Negist Eleni Memorial hospital.

Method: Facility based cross sectional study was conducted among postnatal women in Negist Eleni Memorial hospital from February to March 2016. A pretested and structured interviewer administered questionnaire was used to gather data from 393 randomly selected postpartum women included by using systematic random sampling technique, and then every 2nd eligible woman was interviewed. The data was coded and entered into Epi Info version-7 and exported, cleaned and analyzed using STATA12.1. Tables and charts were used to describe study population and to display results. Bivariate and multivariate analysis was done to identify correlates of bypassing public health centers to hospital for delivery service.

Finding: Sixty seven percent of mothers who gave birth in Negist Eleni Memorial hospital bypassed their catchment public health centers. The likelihood of bypassing health center for delivery service were 4.5 times higher among respondents whose husband's educational level was above secondary education [AOR=4.5; 95%CI=1.06, 20.29], Past obstetric complications [AOR=0.28; 95% CI=0.09, 0.86] and antenatal care (ANC) attendance in the health centers [AOR=0.13; 95% CI=0.04, 0.46] were associated with less likelihood of bypassing. The odds of bypassing were 7.8 times higher [AOR=7.8; 95%CI=3.5, 17.5] for those who were living within 13.02km to Nigist Eleni Memorial hospital compared to those living farther.

Conclusion: The proportion of women bypassing health centers to receive childbirth care at hospital in our study is high. Preference of the type of health facility for delivery care is associated with husband education, past obstetric complication, place of ANC follow up and distance to hospital.

1: INTRODUCTION

1.2 Background

Maternal mortality is significantly decreasing throughout the world with high difference among continents, country to country and region to region. (1) Reduction in maternal mortality is related with increase in number of skilled birth attendants, skilled care units and quality of care in maternal health service provision centers. (2)

In Nepal, not using nearby primary health facilities and traveling to relatively distant place/secondary care unit to receive the same service contributes for poor delivery service provision and maternal death. Perception of low quality is stated as a major determinant factor for non-utilization or bypassing of health services in primary health care units. Women perceived that unlike hospitals, health centers typically cannot provide emergency operation and lack competent midwives and doctors. (3)

In districts of India pregnant women bypass the primary care units because of the absence of essential and emergency obstetric care at lower care units and is expensive and wasteful for mothers, families and the health system because it delays access to emergency services. (4)

Bypassing primary care facilities to seek maternal and child health care in higher level facilities has been reported from other developing countries particularly Sub Saharan Africa Countries, with regardless of care takers socio economic status, distance or residence mainly for the reason of observed or supposed quality of care. (5)

Ethiopia has been implementing different initiatives and strategies to improve maternal health service; some of these strategies include expansion of health facilities, improving quality of care and jointly working with national and international stakeholders: Ethiopia has a three-tier health care delivery system. The catchment population and the package of care provided at each level are different, but all are interlinked. (6)

One barrier for low utilization of obstetric care in closer health facilities could be mothers' preference to use higher-level facilities and bypassing lower level facilities that provide their community (7)

According to Nigist Eleni Memorial Hospital performance report for Regional Health Bureau, from total hospital delivery attended in 2007EFY 72% bypassed public health centers to receive childbirth care at the hospital level and among these 32% of them came from three health centers in Hosanna town administration (7). In the same year, Hosanna town administration health office annual performance report showed that among women who were expected to deliver in the three health centers, 33% of them bypassed the closer health centers and gave birth in NEM hospital (8).

According to 2007EFY of Hosanna town administration health office and regional health bureau annual performance report, institutional delivery rate of Hosanna town administration and SNNPR were 59% and 57%, respectively (7,10).

1.2 Statement of the problem

As the NEM hospital annual performance report showed 72% of bypassers of health center were those who came to hospital to receive childbirth care without referral to the hospital. (7)

Bypassing one facility to other is a big obstacle for health service delivery system at all level including health facilities and health offices at zonal and regional levels. It increase service cost for couples including time to travel relatively long distance, money to pay for transportation to reach preferred facility.

Overflow of delivering mothers to hospitals causes unnecessary work load, overcrowdings, shortage of medical supplies, equipment and drugs; and service delaines in the health facility which may contributes for institutional maternal and neonatal mortalities and morbidities.

In addition to preventive, curative and rehabilitative services, hospitals have other activities including serving as a teaching center for medical students, as center for in-service trainings and

have managerial roles. These services of the hospitals could be disturbed by overflow of delivering mothers to the hospitals.

In the study area bypassing the three governmental health centers to receive childbirth care at the NEM hospital may be one of the reasons for poor performance of delivery services in the three health centers and for low performance report of delivery service from town administration health office, which stood at 27%. On the other hand the hospital had very high performance rate. (9-10)

Low flow of delivering women to labour and delivery ward contributes to human resource underutilization and for delivery instrument, equipment/ supplies and drug wastage due to low utilization of services in the health centers. [9-10] This affects health office further planning for human power, materials, and budgeting.

Despite the general recognition of bypassing primary care units for different services including delivery service as a common problem in Ethiopia, particularly in the study area, magnitude of bypassing health center for child birth service and factors affecting the bypassing have not been well studied. Our study attempted to measure the magnitude of bypassing health centers to receive childbirth care at the hospital level and identify factors affecting bypassing.

1.3 Significance of the study

The study will identify the major reasons why mothers bypass public health centers for childbirth care. The study findings inform program within the health centers to strengthen and improve maternal health service through identifying their gaps related with poor utilization of maternal health services and to focus on improving friendly service. The finding will help care providers to evaluate the care that they providing will be encouraging or discouraging the delivering women who will expect quality service and other maternal service seeking behavior of the women: also to understand how the respectful service provision will positively affect the service delivery and utilization of the catchment facility and population.

The study finding will contribute for reduction of institutional maternal deaths and disabilities that may happen due to delaines in service delivery in hospital as a result of unnecessary

workload, bed occupancies and shortage of human power; The finding will also contribute for hospital to identify and measure daily actual and potential work load to tack action and to communicate with concerned bodies.

The study finding will be used as an input for health service delivery program at local and regional level for awareness creation on importance of health care utilization in the nearby health facilities; support health care managers and policy makers by giving direction for further monitoring and evaluation, planning, appropriate allocation of resources,

2: LITERATURE REVIEW

2.1 Overviews of Health Facility Delivery Service and referral system

Dropping maternal death needs that women give birth with skilled health care providers who can either detect and manage or refer pregnancy related difficulties that able to happen without caution. Countries in Africa and other developing countries given attention to increase primary care structure, which staffed by nurses to provide outpatient clinical care and midwives who can provide basic obstetric care. (9, 11- 13, 25-26)

A study done in Ethiopia stated that regardless of the significant expansion in number of primary care units particularly health posts and health centers in Ethiopia, community usually seek care from hospitals directly without an official referral from a health center or health post and without looking for any prior source of care(25).

In Ethiopia, ninety-five percent of governmental facilities including health centers, 27% of private for profit facilities and 69% of NGO facilities have been provide normal delivery service. Among these facilities, predominantly governmental facilities have been applied BEmONC signal functions except anticonvulsant drugs poorly available in the facilities. CEmONC service is 3% and has been mainly provided in hospitals. (12)

2.2 Magnitude of bypassing primary care units for child birth

Now days in the world numbers of delivering mothers who have been left well accessed nearby primary health care units by preferring to use hospital which is relatively far away from their home are highly in increasing. Women who are living in rural area, rewarded lots of many to reach the preferred facility and those who have no money in hand may sale their household properties to pay for transportation or for service fee in the preferred facilities, but for urban women this could not be a problem because of better access in terms of distance to health facility and better transportation. (11, 3-5, 14-16, 20, 23-26)

The degree of bypassing has been measured by different studies done in Western, Asian and African countries particularly Sub Sahara African countries (3-5, 11, 14-16, 20, 23-25). Community survey done in Kusulu and Pawani districts of Tanzania, in Nepal and in

Afghanistan showed that, the magnitude of bypassing was 42.2%,41.8%, 70%and 60% respectively(14, 11, 20, 24). These were women who chose to deliver in a hospital rather than local primary care units with BEmONC service.

A cross-sectional study done in three regions of Ethiopia that aimed at evaluating patterns of care seeking before arriving at a health center or a hospital showed that about 40% of clients who seek care at the hospital seek the usual MCH care that are available at primary care unit levels particularly in health posts and health centers (25).

Even though there may have been numbers of common determinant factors that push women not to use their nearest health centers, there may have also variations from place to place and time to time. In this section therefore, a review of some of the important variables including demographic, socio-economic, obstetric, health facility or service related and community characteristics are considered as determinants of bypassing the nearby public health centers to receive child birth care at hospital level.

2.3. Factors associated with bypassing public health centers to hospital

Women preference for place of childbirth has been affected by a number of factors particularly in developing countries. Among these demographic factors, socio-economic factors, obstetric factors, health facility and service related factors (including care providers attitude), individual/ house hold factors and community factors are among some considered determinants for bypassing public health centers.(13, 11, 14-16, 20, 23-26)

2.3.1Socio demographic factors

Most identified socio-demographic factors from reviewed literatures about bypassing the nearby health care unit are; mothers' age, education, residing in urban; number of birth, house hold monthly income and occupation considered to be some socio-demographic determinant factors for bypassing health centers for child birth. (11, 13, 14-15, 16-17)

Number of child born and live might relate with women's preference for place of delivery for next birth. Bypassing lower care units to hospital might be related with numbers of birth and live children. To determine this relation a study was done in Tanzania and showed that bypassing

likelihood increased with prim parity with odds ratio of 2.5; that means bypassers were 2.53 times more likely than non-bypassers to be delivering their first child.(14, 11);

A community based cross-sectional study done in Tanzania to determine factors associated with women's preference about place delivery showed that from the study participants 71% , of them were between the ages of 18 and 35; 60.3% had completed primary school (grade-7); 74.5% of women living in the town.(14)

As a discrete choice experimental survey done and of justified that "decreasing costs of using a health center or hospital increased preference for both options, providing a reliable supply of drugs and medical equipment at the health facilities dramatically increased overall preference for that facility (from 2.9% to 26.9% of women)" because care takers may not pay money to afford medications and supplies. (15)

2.3.2. Health facility and service provision related factors.

Many studies noted that health facility related factors had been the reason for bypassing of proximal health care units, particularly quality of the facility, availability of equipments& medications, service provider's attitude. (15-17, 18, and 19)

Health facility factors which associate with bypassing health centers might be related either with service and care providers or directly with facility infrastructures. These factors might not only affect health center delivery service utilization but also might relate with other maternal and child health services. If mothers are not satisfied with service provision during ANC or during under five clinic they would not return back to health center for delivery service utilization at any time. (16)

To determine the health care seeking and bypassing of health care facilities in Kenya, a researcher had been done study and finally noted that "quality of care indicators derived from the respondents suggests that, many women were satisfied with the providers' attitude (65%) and the communication that took place (explanation of illness- 51%, freedom to ask questions- 59%). There was also satisfaction with the providers' competence (53%) and level of cleanliness (67%).

But there was dissatisfaction with physical examination (46%) and drug in availability (22%) in the bypassed facility”. (17)

Health facility based study in Sri Lanka stated that “Providing facilities near the people and charging little or nothing for the care may be of small value unless the health system has or can raise the revenues necessary to provide sufficient service quality at each of those free and convenient facilities”(18);

As this study noted as “poorly functioning referral system with regardless of economical issues is cause for bypass and described as 40% of all who bypass the Minor Public Western facilities go instead to the high level and high cost public hospital”. (18)

Previous or recent medical, obstetric or any complications and acute health problems might also increase intention to bypass nearby health facilities for actual or perceived quality of care and other number of reasons (16-19).

Facility based survey done in general teaching hospital of Gahanna to determine factors associated with bypassing nearest health facility to far hospital to seek acute care among patients showed that, bypassing intention is individual and might not consider the cost related with bypassing and paid for service provided in the preferred facility. So that bypassing health facility for whatever care have been providing in proximal health facility has an important suggestions for the patient as well as the health care system in general. (19)

Bypassing proximal health care unit could be related with severity of the problem and as a solution to solve that severity. Pregnant women bypass their nearest primary care unit for child birth might relate with previous or recent obstetric problem and might not think that it could be solved in health center near to them (19)

As Ethiopia’s household health services utilization and expenditure survey report showed the main reason for bypassing nearest care unit and care provider were closeness of health facility to client’s home (35%), shortage of alternative care giver(18%), improved provision of medications and supplies (18), and supposed quality of the care providers in the facility(6%) (26).

2.1.3. Obstetric factors and maternal health seeking characteristics

For this particular study, number of pregnancies birth, born alive and live child, ANC at least one and at least four visits, place and person attended previous last birth, having information about place of delivery for next birth, previous obstetric history are considered as determinant factors. [14-17,18, and 20]; Study done in Tanzania stated that among bypasses' a total of 66% had been made four or more antenatal care visits.(11,14, 20)

Community based prospective cohort study in Nepal stated that women with previous obstetric complications have 3.41 times higher chance to bypass nearest birth centers to deliver at hospital; the chance of bypass increases with decreasing frequency of ANC follow up(20).

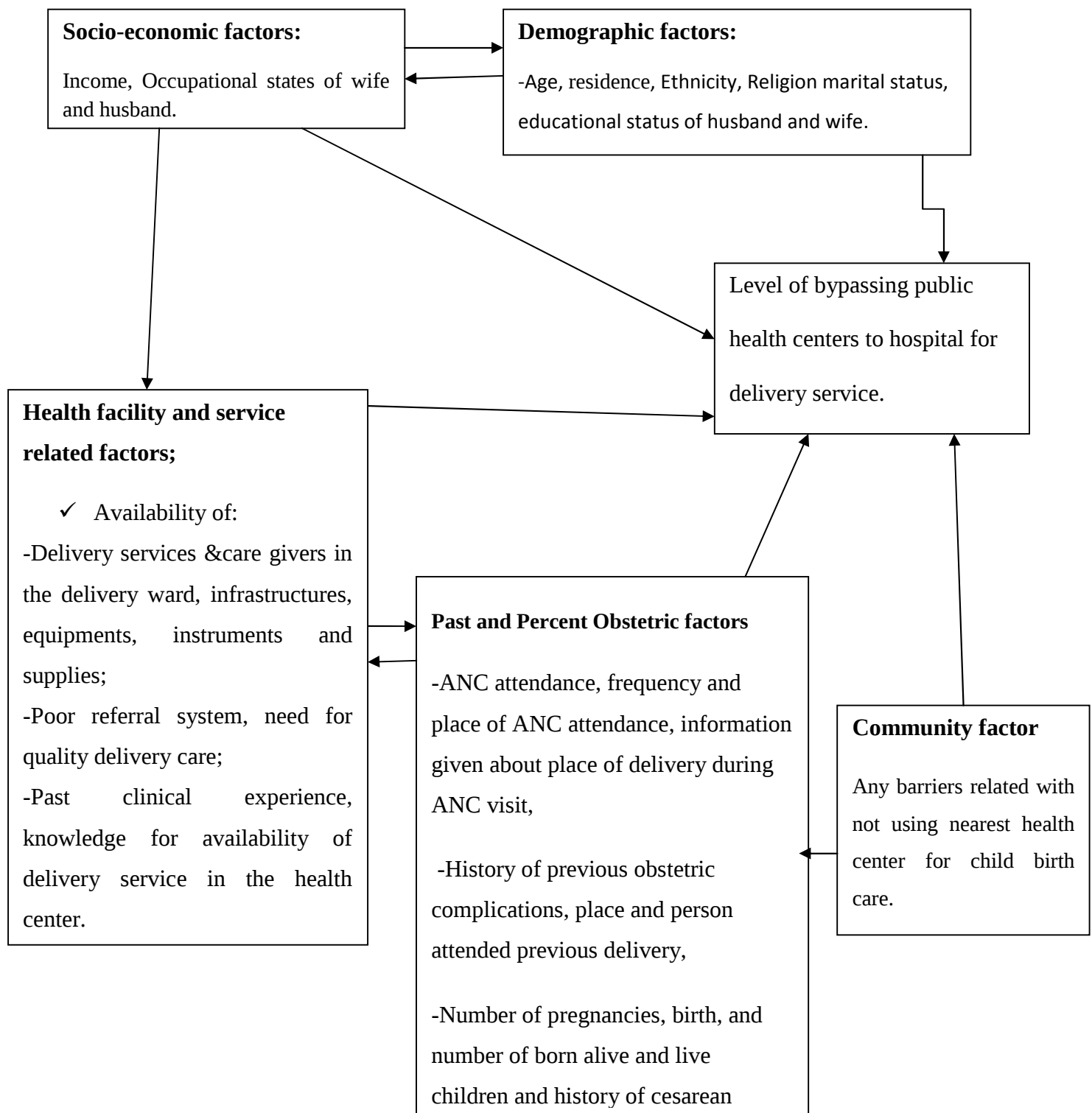


Figure-1 Conceptual framework to display factors associated with bypassing public health centers to hospital for delivery service (22, 25)

3: OBJECTIVES

3.1. General Objective

The general objective of this study is to assess the magnitude of bypassing public health centers to receive delivery care at hospital level and factors associated with bypassing among postnatal women in NEM general hospital, Hadiya Zone, SNNPRs, Ethiopia.

3.2. Specific Objectives

- To assess the magnitude of hospital deliveries that could have been conducted by health centers in NEM general hospital.
- To identify factors that associated with bypassing public health centers to receive childbirth care in NEM general hospital.

4: METHODS AND MATERIALS

4.1. Study design

Facility based cross-sectional quantitative study design was used to determine magnitude of bypassing public health centers and associated factors among recently delivered women in NEM general hospital.

4.2. Study setting and period

The study was conducted in NEM general hospital, Hosanna Town, Hadiya Zone, SNNPRs. The study had been conducted from February to March, 2016.

Hadiya zone is one of the 14 zones in South Region. Hosanna town is capital city of Hadiya zone which is found at the south west of Ethiopia. The town is located 232km far away from Addis Ababa and 194km from the regional capital city Hawassa. It is bounded by Siltie zone in the North, Soro and Gomboro woredas in the West, Anlemo woreda in the East and Kembata zone in the South. There are three administrative sub cities and eight kebeles in the town with total population of 10, 1849 (50.75% male, 49.25% female and a total of 20.4% households) particularly of town administration population/ is sub set of zonal population. (10)

Total child bearing age and pregnant women specifically of the town administration are 23,731 and 3,524 respectively. Town administration health office is a subset of zonal health bureau and responsible for the three health centers. The three health centers named by Hosanna, Lichamba and Bobicho health centers are all functional and give basic child birth services for delivering mothers in the town. Health facilities to population ratio specifically for town administration health office is 1: 33,949 and health officers to population ratio is 1:6,790, midwife nurses to population ratio is 1:5,360 and all type nurses to population ratio is 1:2,680.(10)

In 2007EFY, total estimated catchment pregnant women who were expected to give birth in Hosanna HC and actually delivered in the facility were 1,391 and 36%, respectively.

For Lichamba health center total expected number and those who actually delivered in the health center, respectively were 1,268 and 24%. For Bobicho HC who was expected to deliver at the health center were 612 and total number of clients who actually got delivery service in the

previous year were only 18%[10]. In the same year the town administration health office average antenatal care visit 4 times and above, skill birth attendance and postnatal care coverage rate is 65%, 59% and 63% respectively which is obtained from the average of three health centers named by Hosanna, Lichamba and Bobicho health centers which all are governed by town administration health office.

In the town there is one governmental general hospital that provides comprehensive obstetric care by serving as a referral center for zonal health centers and surrounding district hospitals and health centers. In addition the hospital serves as a teaching center for medical and other health science students from different universities and colleges in the region, as training center for external organizations and governed by regional health Bureau. No private hospital but, there are 15 lower, 19 middle and one higher level private clinic in the town. Health professionals under the town administration health office were ; four MPH, 15 health officers, 19 midwives(BSc and diploma), 19 clinical and public health nurses (BSc and diploma), 31 health extension workers, 11 laboratory (technicians and technologists) and others.(11)

4.3. Population

4.3.1 Source population: Postnatal women who were living in the study area during survey period were source population for this study.

4.3.2 Sample population: Randomly selected recently delivered women who gave birth to a newborn irrespective of the mode of delivery in Negist Eleni Memorial general hospital and who are included in the study.

4.4. Eligibility criteria

4.4.1. Inclusion criteria: Who admitted to Negist Eleni Memorial General Hospital (NEMGH) delivery ward for delivery service and eligible for survey. Who visited hospital for delivery service and who were mentally and physically capable of being interviewed during data collection.

4.4.2. Exclusion criteria: who came with appointment for caesarian section.

4.5. Sample size determination

To determine sample size of the study, a single population proportion formula was used by considering the following assumptions:

$$n = (Z\alpha/2)^2 \times P(1-P)/d^2$$

Where:

P = the proportion of bypassing health centers to hospital for child birth = 41.8% ~42%[11]

q = 1-p = 0.58,

d = margin of error or degree of precision, is considered as 0.05 with the 95%CI

α = the risk of rejecting the null hypothesis (= 0.05)

$(Z \alpha/2)^2 = 1.96$ (level of significance)

By considering non response rate = 5%, and calculating single population proportion formula:

Thus, $n = \frac{(1.96)^2 (0.42) (0.58)}{(0.05)^2}$ n = 374 individuals

So, with adjustment for non-response rate (5% contingency) n = (374+19), finally 393 individuals were included in the study.

4.6. Sampling procedures

The study subjects were selected by using systematic random sampling techniques until the required sample size was fulfilled. The sampling frame was used from delivery registry of NEM general hospital. Two months delivery service registry prior to data collection (from November to December 2008 E.C.) showed that 910 women delivered in the obstetrics ward regarding mode of delivery, emergency obstetric referrals and elective surgical cases. The expected total number of women coming for delivery service within two months was 910, and the total number (910) divided by the total sample size (393). With this proportional to the unit participant size was mentioned. Finally, every 2nd post natal mother was selected for the interview.

Sampling procedures

- NEM general hospital was randomly selected
- Two months hospital total delivery registry was 910=N, ~ sampling frame
- $K = N/n$, N=910, n=393, $k=910/393=2.3 \sim 2$, is proportion to unit client then, starting from the randomly selected newly delivered woman, every 2nd eligible mother was interviewed.

4.7. Study Variables

✓ Dependent variable

The dependent variable of this study is level of bypassing public health center to receive childbirth care at hospital.

✓ Independent variables

Independent variables can be classified into demographic variables, socio-economic variables, obstetric & reproductive health factors, health facility and service related factors, community related factors.

Demographic variables:

- Maternal age, marital status, residence, religion, ethnicity.

Socio-economic variables:

- Occupation of husband and wife, educational status of husband and wife and house hold income

Previous and present obstetrics:

- Number of pregnancies and birth given, number of children born alive and currently live, past obstetric complications during previous pregnancy, delivery & after delivery.
- Surgical history for whatever cause, person and place of attendance for previous the most last birth.
- Numbers of ANC visit, information provided about place of delivery during ANC follow up, person attended and place of ANC attendance

Health facility and service related factors:

- Unavailability of (infrastructures, delivery equipments and drugs, care providers in the service providing area/unit, skilled care providers), decision making.
- Poor referral system, distance to health facility, type of nearby health facility.
- Previous experience of visiting health center for whatever service and comments related with service at the time of visit and information about availability of delivery service in the health center.

Community factors: Any barriers in the community related with not using HC for delivery service.

4.8. Data Collection Instrument and procedures:

Instrument: A structured questionnaire that was previously used by other surveys like EDHS and literatures (21 and 22) was adapted and modified to local context in such a way that all the variables to assess bypassing health centers for childbirth were included.

The questionnaire was prepared in English (Annex-1) and then translated into Amharic (Annex-2) by an individual who has good ability of both languages. The questionnaire was pretested on 19 recently delivered women in NEM general hospital delivery ward a week before the actual data collection, after which necessary modifications were made.

Based on the pretest two variables related with ANC attendance were dropped and the orders of the items were rearranged sequentially to keep flow of the interview. The questionnaire was organized into four sections; socio-demographic having 13 items, past and present obstetric characteristics having 20 items, health facility and service related factors having 12 items and community norm related factors having 2 items.

Data collection Process: Four data collectors, graduating class midwifery students of Wachemo University who were assigned in MCH care units for practical attachment and fluent in *Amharic* and *Hadyigna* were employed.

A supervisor with MPH from Wachemo University and the principal investigator continuously followed the data collection. They were responsible to lead overall data collection process, and check consistency and completeness of data collected.

Data was collected using face-to-face interviewer administered questionnaire. Data collectors and supervisor were trained on the objectives, importance of the study, confidentiality issue, participants' right, informed consent and techniques of interviewing. Role-play was used during the training to strengthen their skills on how to administer questionnaire and approach the study participants during data collection.

The trained data collectors approached the study participants by greeting and introducing themselves. They explained the purpose of the study and asked the women for verbal consent or agreement.

4.9. Operational definitions of terms

1. **Bypasser:** In this study is defined as self referred pregnant woman that directly comes from home to NEM general hospital for the same childbirth service, which could be provided in the nearest health center.
2. **Non-bypasser:** In this study is defined as a pregnant woman that comes to NEM general hospital with referral/referred by other body from the nearest health center or home for childbirth.
3. **Preference of higher-level health facility:** In this study it refers to women's decision to use hospital as a first choice for basic essential and emergency obstetric care over the health centers.
4. **Recently delivered woman:** In this study mean women who had given birth/ postnatal women in NEM general hospital.

4.10. Data analysis

After the data was manually cleaned and pre coded it was entered into Epi Info version 7, and was exported to STATA version 12.1 software for cleaning and statistical analysis. Frequencies, proportion and summary statistics along with the relevant displays like table and charts are used to describe the study population in relation to relevant variables. Bivariate and multivariate techniques were applied to identify correlates of bypassing nearby public health centers for delivery service.

Bivariate analysis was done and all explanatory variables associated with bypassing nearby public health centers for delivery service with p-value <0.05 were identified and entered into multivariate logistic regression model. Multivariate logistic regression analysis was used to identify independent correlates of the outcome variable and to control possible confounding effects. Odds Ratios (OR) 95% CI were used to measure the strength of association between the dependent and independent variables. To check multi co-linearity, regression analysis was done by involving all variables included in bivariate analysis and the mean variance inflation rate was 2.46.

4.11. Data quality control and assurance

Before data collection, the questionnaire which was previously used by similar surveys was adapted and pretested in similar population to maintain its power and trustworthiness. The questionnaire was prepared in English and then translated to Amharic, which is the commonly used language in the study area. Data collectors were confident in both *Amharic* and *Hadiyigna* language and they were not among NEM general hospital staffs.

Quality of the data was also ensured during collection, entry and analysis. During data collection, sufficient training and follow up was given to the data collectors and supervisor. Supervision of data collectors included observation of the questionnaire was administered and also supervisor and the principal investigator made random revisit of the data collectors and the whole process in the delivery ward.

The field questionnaires were manually checked for completeness, truthfulness and consistency by data collectors, supervisor and principal investigator on daily basis. Respondents' hospital registration number was included in the tool and the principal investigator crosschecked for inconsistencies and inaccuracies from either registration book or respondent chart. As a result, corrective discussion on any encountered problems was undertaken with all the data collectors and supervisor, problems faced were discussed and timely solutions were taken. Finally completeness of the questionnaire was checked and manually cleaned before data entry. The data was cleaned, cross-checked and edited after exporting to STATA.

4.12. Ethical consideration

The research was conducted after approval was obtained from the Institutional Review Board of College of Health Sciences, Addis Ababa University. Prior to data collection, official letters were taken from School of Public Health, Addis Ababa University to SNNPRs regional and Hadiya Zone health Bureau and NEM general hospital.

Hadiya zone health department wrote letter of permission to Hosanna town administration health office and NEM general hospital. Letter of cooperation from the NEM hospital administrators was written to obstetric ward coordinators. Informed verbal consent was obtained from

respondents after giving them information about objectives of the study and confidentiality issues. Finally, all the responses were kept confidential and unknown.

4.13. Dissemination plan

The findings from the study will be presented to School of Public Health, College of Health Sciences of Addis Ababa University and other concerned and scientific bodies. Hard and soft copies will be submitted to the school after final defense.

The thesis report will also be communicated to health planners and other relevant stakeholders at zonal level, town administration health office, health facility managers, and care providers in NEM general hospital and health centers of town administration to enable them take recommendations into consideration during their planning process and care provision.

The study findings will be also shared with concerned bodies at regional and national level. The finding of the study will be submitted to peer reviewed journal for publication.

5: RESULT

5.1 Description of the characteristics of study participants

5.1.1 Socio-demographic Characteristics of Respondents

Among the 393 postnatal women approached by the data collectors in NEM general hospital, 389(99%) of them consented to participate in the study immediately while the remaining 4(1%) consented to participate in the study but asked the interview time to be postponed for about an hour. At the end of the interview the response rate was 100% with no replacement of respondents.

The mean age of respondents was 27 years (SD 4.4). Two hundred eighty nine (73.54%) of the respondents were from Hosanna town. Out of those mother who came from Hosanna 120(41.52%) were from Sechduna Sub City.

Three hundred twenty nine (83.72%) respondents have attended formal education and 149(45.29%) attended primary education. Among respondents, 278 (70.74%) were Protestants, 299 (76.08%) were from Hadiya Ethnic groups, 377(95.17%) were currently married, and 241(61.32%) were housewives.

Regarding socio demographic background of respondents' husbands, 173(44.02%) were employed in government or private organizations, 367(93.38%) attended formal education and 141(35.88%) attended more than secondary education.(Table-1)

Table-1 Socio-demographic characteristics of study participants, NEM hospital, SNNP Region, Ethiopia, 2016 (n=393)

Variable (n=393)	Frequency	%
Maternal age		
15-24	118	30.03
25-34	241	61.32
>= 35	34	8.65
Residence		
Hosanna town	289	73.5
Out of Hosanna town	104	26.5
Sub city (Hosanna town) (n=289)		
Gofermeda	101	34.95
Bobicho	68	23.53
Sechduna	120	41.52
Education		
No	64	16.28
Primary	149	45.29
Secondary	96	29.18
More than secondary	84	25.53
Religion		
Orthodox	58	14.76
Protestant	278	70.74
Muslim	47	11.96
Catholic	10	2.54
Ethnicity		
Hadiya	299	76.08
Kembata	34	8.65
Amhara	18	4.58
Gurage	16	4.07
Silite	17	4.33
Others*	9	2.29
Marital states		
Currently married	377	95.93
Others**	16	4.07
Respondent's occupation		
House wife	241	61.32
Employee	93	23.66
Merchant	46	11.71
Others***	13	3.31
Husband's occupation		
Employee	173	44.02
Merchant	90	22.90
Farmer	68	17.30
Daily laborer	36	9.16
Others ****	26	6.62
Husband's education		
No education	26	6.62
Primary(1-8)	127	32.31
Secondary(9-12)	99	25.19
More than secondary	141	35.88
House hold monthly income (mean with SD= 1786.19)		
< = 2696.209	216	54.96
> 2696.209	177	45.04
*Wolita and Oromo **not married but living together, separated, widowed and single *** student, daily laborer and home maid ****student, driver and mechanic.		

5.1.2 Obstetric Characteristics of Respondents

Among 393 respondents, 218(55.47%) had history of previous pregnancy and 209(53.18%) gave birth previously. Out of the 209 who have given birth previously 114(54.55%) delivered in hospital and 134(64.11%) were attended by midwives.

Regarding antenatal care, 374(95.17%) the recently delivered women reported that they attended antenatal care at least once and 246(62.59%) have attended antenatal care at least four times. Two hundred eighty five (76.2%) of the women attended ANC in health centers, 351(93.85%) were seen by midwives. Three hundred twenty one, (85.83%) of respondents reported as they were provided information during ANC about place of delivery.

Among interviewed recently delivered mothers 30(13.76%), 31(14.83%) and 6(2.87%) reported that they faced obstetric difficulties during pregnancy, at birth and post partum period, respectively.

Table 2: Obstetric characteristics of study participants, NEM general hospital, SNNP Region, Ethiopia 2016 (n=393)

Variable)	Frequency	%
Any previous pregnancy		
Yes	218	55.47
No	175	44.53
Number of previous pregnancy		
0-1	243	61.83
2-4	112	28.50
>= 5	38	9.67
Any previous birth history(n=218)		
Yes	209	95.87
No	9	4.13
Number of previous birth(n=209)		
0-1	76	34.86
2-4	113	51.83
>= 5	29	13.31
Number of children born alive (n=209)		
0-1	78	37.32
2 -4	103	49.28
>= 5	28	13.40
Children currently alive (n=202)		
0 -1	71	35.15
2 -4	103	50.99
>= 5	28	13.86
Birth place for previous last birth (n=209)		
Health center	48	22.97
Hospital	114	54.54
Home	45	21.53
Health post	2	0.96
Person assisted previous last birth (n=209)		
Doctor	34	16.27
Midwifery	134	64.11
Traditional birth attendant	32	15.31
Others*****	9	4.31
Previous history of any type of surgery (n=393)		
Yes	25	6.36
No	368	93.64
Any pregnancy related problem during previous last pregnancy(n=218)		
Yes	30	13.76
No	188	86.24
Problem faced during previous last pregnancy (n=30)		
Vaginal bleeding	18	60
Raised B/P	6	20
Intra uterine fetal death	2	6.67
Premature rupture of membrane	2	6.67
Nausea and vomiting	2	6.67
Any pregnancy related problem during the previous last birth (n=209)		
Yes	31	14.83
No	178	85.17
Problem faced at previous last birth (n=31)		
Vaginal bleeding	8	25.81
Still birth	7	22.58
Prolonged labour	12	38.71

Fetal distress	4	12.9
Any obstetric problem during previous last post partum period		
Yes	6	2.87
No	203	97.13
Problem faced during last post partum period(n=6)		
Vaginal bleeding	1	16.67
Raised B/P	3	50
Offensive vaginal discharge	2	33.33
Antenatal care attendance for the recent pregnancy (n=393)		
Yes	374	95.17
No	19	4.83
Place of ANC attendance (n=374)		
Hospital	86	23
Health center	288	77
Number of ANC visit (n=374)		
One visit	9	2.4
Two to three visit	119	31.82
Four and above visit	246	65.78
Person provided ANC service (n=374)		
Doctor	20	5.35
Midwife nurse	354	94.65
Information provided about place of delivery during ANC (n=374)		
Yes	321	85.83
No	53	14.17
Others* 8and 9, Others** 6and 8, Others*** 7and 8, Others**** 7and8, Others***** HEWs and Relatives		

5.1.3 Health facility and service provision related factors

Asked if they know availability of childbirth service in the nearby health centers 327 (83.21%) of the respondents said they know the availability of the service in the nearby health centers. However, 265(67.43%) of the postnatal women came directly to NEM hospital from their home bypassing the nearby health centers where they were supposed to go for childbirth services.

Of those referred from health facilities 24 (18.75%) were from Hosanna town. Of the 128 recently delivered women who were referred from health facilities 66(51.56%) of them know reasons for referral. Out of those who reported the reasons for their referral 49(74.24%) mentioned obstetric factors as their reasons.

Regarding reason for bypassing health center, out of all who bypassed the health centers,121(45.66%) of said family preference for quality service at hospital was the reason for bypassing the health center followed by hospital being nearby32(12.08%), disrespect by providers (11.7%) and lack of medications and equipment at the health centers (10.6%). Among 393 respondents 275(69.97%) had previously visited the nearby health centers which including recent ANC visit for the last pregnancy, of this 166(60.36%) were satisfied with the service they received at time of visit.

Regarding decision to visit NEM hospital for childbirth service179 (67.55%) of the women said the decision was made jointly them and their husbands.

Two hundred ninety three (74.55%) study participants reported that the most nearest health facility to their home is in Hosanna town including NEM hospital, of these 98(74.94%) reported as nearby facility as Hosanna HC. Regarding accessibility of the health centers 222(56.49%) of the study participants estimated the average distance from their home to the nearby HC to be less than or equal to 4.51kms and for 258(65.65%) of them the distance from their home to the NEM hospital is less than or equal to13.02kms.

Table 3: Health facility and service provision related characteristics of respondents in NEM general hospital, SNNP Region, Ethiopia 2016 (n=393).

Variable (n=393)	frequency	%
Modes of delivery for recent birth		
Spontaneous vaginal delivery	343	87.28
Cesarean section	47	11.96
Assisted vaginal delivery	3	0.76
Nearby health facility		
Hosanna Health center	98	24.94
Lichamba health center	69	17.56
Bobicho health center	72	18.32
NEM- hospital	54	13.74
Health centers out of Hosanna town	100	25.44
Distance to nearby health center		
< = 4.51km(st.dv-3)	222	56.49
>4.5km (st.dv-3)	171	43.51
Distance to NEM hospital		
< =13.02km(st.dv-12.5)	258	65.65
>13.02	135	34.35
Know about HC delivery service availability		
Yes	327	83.21
No	66	16.79
Ever visited health center for whatever service		
Yes	275	69.97
No	118	30.03

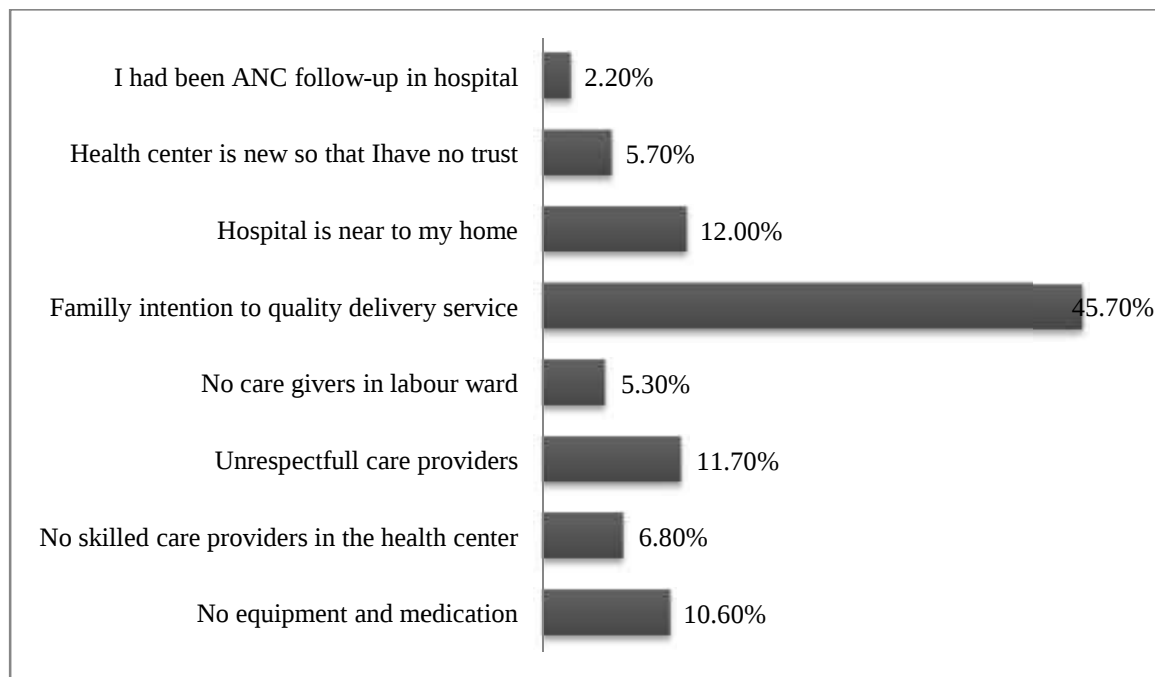


Figure-2 Reason for not preferring Health Center for childbirth service, Hosanna, SNNPRegion, Ethiopia, 2016(n= 265)

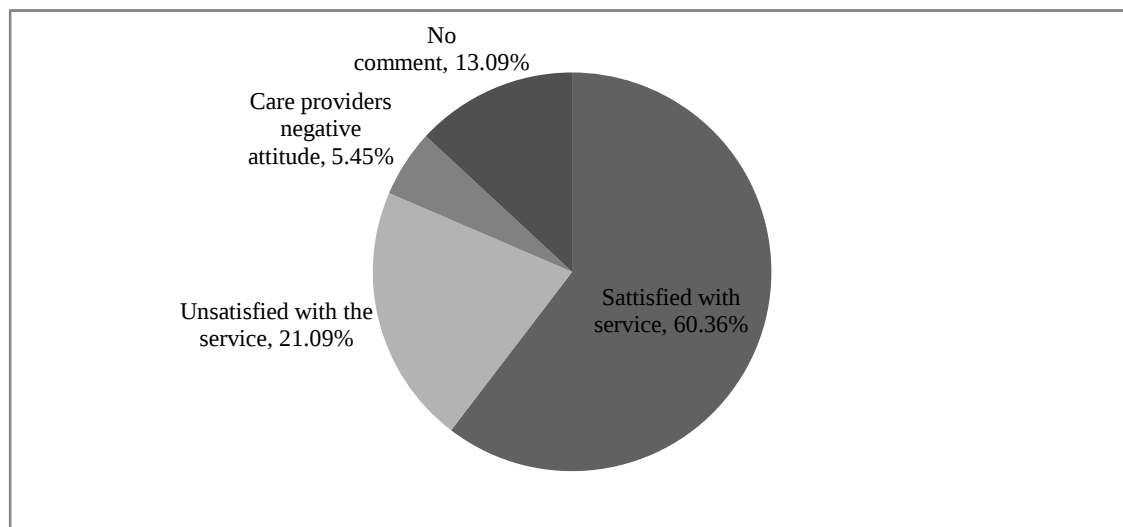
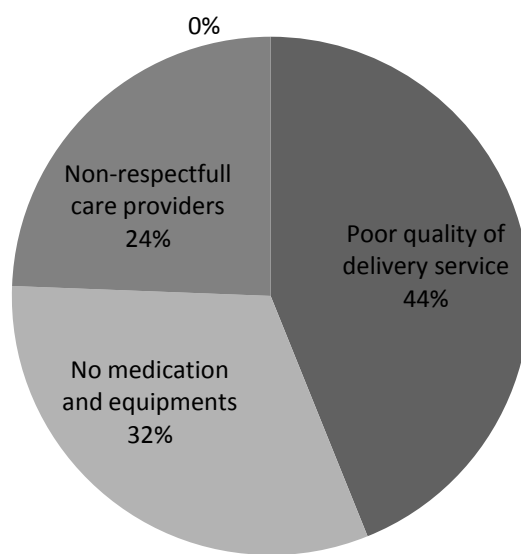


Figure-3 Respondents' satisfaction with their previous visit to nearby health center, Hosanna Town, SNNP Region, Ethiopia, 2016(n=275)



5.2 Factors associated with bypassing public health centers (binary logistic regression)

5.2.1 Socio-demographic factors associated with bypassing public health center

Bivariate analysis was done to identify associated factors with bypassing public health centers to hospital for child birth. Significantly associated socio-demographic factors identified were respondents educational and occupational status, husbands occupational and educational status, and household average monthly income ($p < 0.05$).

5.2.2. Obstetric factors associated with bypassing public health centers

Gravidity, parity, currently live children, place of delivery and birth attendant during childbirth preceding the current one, obstetric complication during pregnancy preceding the current, and ANC provider for the last pregnancy were significantly associated with bivariate analysis ($p < 0.05$).

5.2.3. Health facility and community related factors associated with bypassing health center

Place of ANC follow-up for the current pregnancy, distance from home to HC and to hospital were found to have statistically significant association on bivariate analysis ($p < 0.05$).

5.3. Multivariate analysis

All variables that had statistically significant association with bypassing health center for delivery care at the NEH hospital on bivariate analysis were included in multivariate analysis model. The multivariate analysis model showed that husband's educational status, obstetric complication during pregnancy preceding the current, distance to NEM hospital and place of ANC follow-up for the current pregnancy were significantly associated with bypassing health centers to receive childbirth care at hospital with p -value < 0.05). [Table-4]

Table-4: Factors associated with bypassing governmental health centers to receive delivery service at hospital among postnatal women in NEM general hospital, SNNP Region, Ethiopia 2016 (n=393)

Characteristics	Bypassers		COR(95%CI)	AOR(95%CI)
	Yes (n,%)	No/referred(n,%)		
I. Socio-demographic factors				
Respondent's level of education				
No education	27(10.19)	37(28.91)	1.00	1.00
Primary education	99(37.36)	50(39.09)	4.47(1.75,11.41)**	
Secondary education	69(26.04)	27(21.09)	5.43(2.07,14.21)***	
Above secondary education	70(26.42)	14(10.94)	10.95(4.19,28.62)***	
Husband's level of educational				
No education	7 (2.64)	19(14.84)	1.00	1.00
Primary education(1-8)	79(29.81)	48 37.50)	4.5 (1.75,11.41)**	3.3(0.99,10.70)
Secondary education(9-12)	66 (25.78)	33(24.91)	5.4 (2.07,14.21)**	3.04(0.82,11.29)
Above secondary education: (certificate, diploma, degree and above)	113 (42.64	28(21.88)	10.9(4.19,28.62)***	4.5(1.06,20.29)*
Respondent occupation				
Merchant	37(13.96)	9(7.03)	1.00	1.00
Employed	74(27.92)	19(14.84)	0.95(0.39,2.29)	
House wife	142(53.58)	99(77.34)	0.35(0.16,0.75)**	
Student/home maid/laborer	12(4.53)	1(0.78)	2.9(0.38,25.47)	
Husband occupation				
Laborer	20(7.55)	16(12.50)	1.00	1.00
Employee	132(49.81)	41(32.03)	2.6(1.22,5.42)*	
Merchant	68(25.66)	22(17.19)	2.5(1.09,5.58)*	
Farmer	31(11.70)	37(28.91)	0.67(0.29,1.51)	
Student/mechanic/driver	14(5.28)	12(9.38)	0.93(0.34,2.57)	
House hold monthly income				
<= 2696.21	127(47.92)	89(69.53)	1.00	1.00
>2696.21	138(52.08)	39(30.47)	0.07(0.04,0.12)***	
II. Obstetric factors				
Number of pregnancy/ gravidity				
0-1 pregnancy	164(61.89)	79(61.72)	2.31(1.15,4.60)*	
2-4 pregnancy	83(31.32)	29(22.66)	3.18(1.48,6.83)**	
>= 5 pregnancy	18(6.79)	20(15.63)	1.00	1.00
Number of birth/ parity				
No previous pregnancy/ birth	117(44.15)	67(52.34)	1.42(0.64,3.12)	
0-1 birth	52(19.62)	15(11.72)	2.82(1.11,7.14)*	
2-4 birth	80(30.19)	33(25.78)	1.97(0.85,4.55)	
>= 5 birth	16(6.04)	13(10.16)	1.00	1.00
Number of currently live children				
No pregnancy/ birth	117(44.15)	67(52.34)	1.31(0.63,2.73)	
0-1 live child	55(20.75)	16(12.50)	2.6(1.08,6.16)	

2-4 live children	73(27.55)	30(23.44)	1.8(0.82,4.03)	
>= 5 live children	20(7.55)	15(11.72)	1	1
Place of birth for previous last birth				
Hospital	97(36.60)	17(13.28)	1	1
Health center	28(10.57)	20(15.63)	0.24(0.11,0.53)***	
Home /health post	23(8.68)	24(18.75)	0.18(0.08,0.36)***	
No previous pregnancy/birth	117(44.15)	67(52.34)	0.31(0.17,0.55)***	
Birth attendant for previous last birth				
Health worker	129(48.68)	42(32.81)	3.6(2.17,4.35)***	
Non health worker	19(7.17)	19(14.84)	0.33(0.16,0.67)**	
No pregnancy and child birth	117(44.15)	67(52.34)	1.00	1.00
Obstetric complication during previous last pregnancy				
Yes	15(5.66)	15(11.72)	0.38(0.17,0.84)	0.28(0.09,0.86)**
No	136(51.32)	52(40.63)	0.62(0.89,2.119)	0.72(0.10,5.44)
No previous pregnancy and birth	114(43.02)	61(47.66)	1.00	1.00
ANC Service provider for the last pregnancy				
Doctor	18(6.79)	2(1.56)	1.00	1.00
Nurse /Midwife	235(88.68)	119(92.97)	0.22(0.05,0.96)	
No ANC attendance	12(4.53)	7(5.47)	0.19(0.03,1.10)	
III. Health facility and service related factors				
Place of ANC attendance				
No ANC attendance	12(4.53)	7(5.47)	0.06(0.01,0.27)	1.10(0.05,21.38)
Hospital	83(31.32)	3(2.34)	1.00	1.00
Health center	170(64.15)	118(92.19)	0.52(0.02,0.17)	0.13(0.04,0.46)**
Distance to nearby HC				
<=4.51km	192(72.45)	30(23.44)	8.59(5.27,14.02)*	2.03(0.95,4.31)
> 4.51km	73(27.34)	98(76.56)	1.00	1.00
Distance to NEM hospital				
<=13.02	223(84.15)	35(27.34)	14.1(8.47,23.49)***	7.8(3.51,17.51)***
>13.02	93(72.66)	42(15.85)	1.00	1.00

*= p-value<0.05, **= p-value<0.01, ***p-value=0.000, COR- crude odds ratio, AOR- Adjusted odds ratio, CI=Confidence interval.

6: DISCUSSION

This health facility based study has attempted to find out the magnitude of bypassing public health centers to receive childbirth care at hospital level and factors associated with bypassing among postnatal women in NEM general hospital, South Region, Ethiopia.

In this study, the proportion of women bypassing health centers to receive child birth care at hospital level for a service that could have been provided in the nearby health center was 67.43%. This is more than twofold of the proportion reported in the annual performance report of NEM hospital (32%) and Hosanna town administration health office (33%). [7, 8] The magnitude of bypassing is comparable with bypassing level reported in a study done in Nepal (70.2%) and Afghanistan (60%) and is higher compared to what was reported by studies from Pawani and Kasulu districts of Tanzania (41.8% 42.2%, respectively).

Husband secondary education, previous obstetric complication during last pregnancy, place of ANC attendance for recent pregnancy and distance to NEM hospital were found to correlate with bypassing public health centers for child birth.

Consistent with other studies (11 and 20), in our study age of the postpartum women has no association with bypassing, but this finding contradicts with other previous studies that reported association of age with bypassing. (14, 18, 19) The possible justification could be the mean age for majority of respondents in this study was 27 years, and also majority of them resided in urban setting and might have better educational attainment and income source. So that, they could have relatively better decision making power for preference of quality delivery service by this age.

Similarly, in our study maternal education had no association with bypassing health centers to receive childbirth service at hospital. This is consistent with study done in Tanzania (14) and contradicts the findings from other studies in developing countries that showed higher odds of bypassing with increasing level of education (11, 16, 20). The possible justification could be that majority of respondents in this study attended at least primary education, might have opportunity to have information about quality delivery service from different media, and could be due to sample size and study setting variation.

Our study revealed that the likelihood of bypassing health center for delivery service were 4.5 times higher among respondents whose husbands attended more than secondary education compared to those whose husbands did not attend at all or attended secondary and less than secondary education. The possible explanation for this could be that with increasing level of education, husbands might be more exposed to health information particularly quality maternal health service related information which might influence the decision to seek care at hospital level. In addition, educated husbands might have relatively better household monthly income, which increases the likelihood of seeking care at high-level facility.

This study showed that household monthly income has no independent association with bypassing health center to receive childbirth care at hospital. This result agrees with the result from community-based study done in rural Tanzania (14) but contradicts with finding from other studies from Sri Lanka (18), Kenya (17), Ghana (19), and Nepal (20). The possible explanation could be that the majority of study participants in this study had relatively similar monthly income (66% of respondents), were resided in town, and traveled a short distance to prefer facility with low transportation cost, free delivery services in hospital is equally distributed for those who have high or low monthly income. Due to homogenous characteristics of respondents in terms of socio-demographic status, bypassing health centers to receive delivery service at hospital level might not directly affected by house hold monthly income.

In this study, 14% of respondents had previous obstetric complication during previous pregnancy and respondents those with past obstetric complication during pregnancy preceding the current were 72% less likely to bypass health centers for delivery service compared to those either who had no history of previous complication or who had no pregnancy and birth at all in the past. The possible justification could be majority of respondents who reported complications during previous pregnancy were abortion cases and might received abortion care in the health center. The finding is differently reported in study done in Nepal which stated as 29% of respondents who bypass nearest health facility for child birth to hospital were faced intra partum complications during previous last birth. (20)

In our study, ANC attendance was 95%, among them 65% had ANC +4 visits. This is in line with results from other similar studies done in Tanzania and Nepal showed that ANC visit +4

were 66%[11], 50%[14]and68% (20). Like result of studies in Tanzania (11, 14), finding from this study showed that frequent ANC visit had no association with bypassing health center for childbirth service to hospital level. But contradict with result of study done in Nepal (20) where women with frequent ANC visit were 62% less likely to bypass the birth centers. Possible explanation could be opportunities to attend ANC and to have frequent visit of ANC was relatively similar for respondents and also majority of them were living in town.

In this study 76% of respondents had been attending ANC for their last pregnancy in health centers. The result from this study showed that women who attended ANC service in health center were 87% less likely to bypass health centers for delivery service compared to those who attended either in hospital or who had no ANC attendance at all [AOR=0.13; 95%CI=0.04, 0.47].

This indicates that place of ANC attendance is independently associated with bypassing, rather than number of ANC visits the women had. This finding is not seen in other similar studies, it might be because previous studies did not include place of ANC attendance as variable in their study tools.

In our study, distance to hospital has a strong association with bypassing health centers to receive delivery service at hospital level. The probability of bypassing health centers to hospital for delivery service is 7.8 times higher for those who traveled ≤ 13 kilo meters to NEM hospital compared to those who traveled greater than 13 kilo meters. The possible explanation with this finding could be travelling is costly in terms of time, money and human power, Particularly to seek child birth care traveling further distance has variety of indirect and direct costs to be paid. In this case, majority of respondents might traveled relatively less distance to reach preferred hospital, no extra payment for transportation, not take time to travel. As the result, distance is inversely related with bypassing closer health center for de. This finding is in line with results of other studies. (14, 16, 23, 24)

7. Strengths and Limitations of the study

7.1. Strengths

- High response rate of the study participants
- Postnatal period immediately after birth was preferred to interview study participants.
- Variables that were missed in previous studies on bypassing were included

7.2. Limitations

This study had several limitations.

- Cross sectional survey, because of time and resource shortage.
- In this case it is impossible to describe causal relationship between independent variables and level of bypassing.

8. Conclusions and Recommendations

8.1. Conclusions

The facility based survey done in NEM general hospital found that two-third of the deliveries in the hospital bypassed the nearby health centers and directly come from their home to the hospital for delivery cares that could be provided in the nearest health center. These research findings have important implications for health system organization.

Husband's level of education, past obstetric complication during pregnancy, type of health facility used for ANC service and distance from women home to hospital have association with bypassing public health centers for delivery service.

The commonest reason for bypassing nearby health center was families' intention for better quality delivery service at hospital level. Other reasons include providers' negative attitude towards pregnant women, lack medications and equipment in the health center. So that, health officials and care providers at all level should focus on minimizing level of bypassing and friendly service provision for women.

8.2. Recommendation

Based on the findings of this study, the following recommendations were made the respective stakeholders;

For health officials:

- Attention should be given to strengthen friendly service in the health centers that might be better strategy to reduce level of bypassing health center's delivery service.
- Giving attention to address influencing factors for un respectful care provision and communicating with care providers how to approach respectfully the clients may be a solution to increase friendly service provision for clients of maternal health care.
- Awareness creation strategies particularly to reduce magnitude of bypassing health centers for delivery service should be included in health service delivery system.

For Health center/facility administrators

- Since all maternal health service are interrelated, strengthening integration of services provision and supportive supervision and motivation for maternal and child health service providers can be better strategy to decrease flow of clients particularly for child birth service to hospital.
- Communicating with concerned bodies to get supplies, equipments and medications necessary for MCH care, particularly for labour and delivery service, encouraging technical staffs to serve their clients respectfully and giving refreshment training how to use medications and equipment on hand to provide quality labour and delivery service should be a focus area to strengthen over all facility service provision that might increase flow of clients to health center for delivery service.

For Service providers

- As much as possible provide maternal health service friendly and respectfully and avoid unnecessary referral of laboring mothers to hospital.
- Try to create awareness during ANC visit about disadvantages/risks of bypassing nearby health centers.

Areas for further researches:

- Study that apply mixed method (both qualitative and quantitative methods) to understand the bottlenecks at different levels and better address issue
- Community based study including mothers who delivered in their nearby health center

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Annex-1 English version questionnaire

Addis Ababa University, College of Health Sciences, School of Public Health

Interviewer administered structured questionnaire and informed consent to assess the magnitude of bypassing public health centers and associated factors among newly delivered women in Hosanna Towne NEM general hospital, Hadiya Zone, Southern Ethiopia.

I. Information sheet

Good morning /afternoon, my name is_____ I am 4th year BSc midwife nursing student of Wachemo University. The study is undertaken by Masters of Public Health student in collaboration with Addis Ababa University, College of Health Sciences Schools of Public Health Lecturers. I am also a part of data collector team to carrying out the study on newly delivered women in this hospital. The purpose of this study is; to determine bypassing public health centers to hospital for child birth service and influencing factors among pregnant women in Hosanna town.

Ask and exclude the following individuals;

1. Did you come with nurses or doctor's appointment/advice to give birth only in hospital or for cesarean section?

If the response is "yes" thank the respondent, explain the reason of exclusion and skip to the next client, if the response is "no" with thanking the respondent continue the discussion.

There will not be any benefit in terms of money; rather you may be morally satisfied for you contribute to the maternal health service improvement that may be attained from the result of the study. We believe that the study findings will help in order to improve number of deliveries in the health centers and to improve respectful maternal care provision for mothers and their newborns as well as to strengthen health centers in which child birth service is not adequately provided.

If you participate in the study, it will not take us more than 10- 15minutes. All of the answers you give will be confidential and will not be shared with anyone other than members of data

collectors. Your name will not be written on this form, thus the information you provide will not be known to others.

There is no risk involved in participating in the study. Your participation is purely voluntary, and you can withdraw any time after you get involved in the study without compromising the services you ought to get from the hospital/health center. I hope that you will participate in this study since your views are important.

Do you have any questions about the survey? May I begin the interview now? If you have any question contact the principal investigator at any time convenient for you using the following addresses:

Name of principal Investigator: Melesech Elisso.

Address: Addis Ababa University, College of Health Sciences, School of Public Health, Addis Ababa, Ethiopia. Cell phone: 0916839263, E-mail meleelisso@gmail.com

II. Consent form

I selected as a participant, heard the information in the consent sheet and understood what is required from me and what will happen to me if I take part in the study. I understand that all the information regarding me, like name and all answers given by me must not be transferred to the third party. I can also understand that I can withdraw from the study at any time without giving a reason and without me or my families' routine service utilization being affected for my refusal.

Now please tell me if you agree to participate in the interview or not. The Participant:

1. Agreed **Hospital registration number**-----.
2. Did not agreed—————→ End the interview and thank the respondent, skip to the next respondent.

Reason for not agree to participate in the interview: -----.

Interviewer Agreement

I certify that I have taken written consent from the respondent that she has agreed to participate in study and I have confirmed the agreement is correct.

Interviewer Name: _____ **Signature**_____

Date | _____ month | _____ | 2016.

Interviewer's code | _____ | _____ |

Start Time ____:____ End time ____:____

Supervisor Name: _____ **Signature**_____

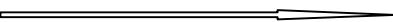
Date | _____ month | _____ | 2016.

Instruction for data collectors

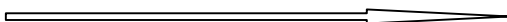
Read each question carefully and tick (✓) on one of the given alternatives from the question if the question is in multiple choice forms. If the question is open-ended try to put what the respondent says.

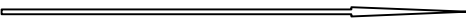
Section –I. Respondents Demographic and Socio-economic Characteristics

First I would like to ask some questions related with you and family.

No	Questions And Filters	Response and coding categories	Skip to	Code
Q101	How old are you?	Completed years_____		
Q102	Where do you live currently?	In Hosanna town1 Out of Hosanna town.....0 	104	
Q103	In which sub city and Keble do you live currently?	Gofermeda sub city.....1 Bobicho sub city 2 Sechduna sub city3		
Q104	Have you ever attended school?	Yes 1 No 0 	106	
Q105	If yes for Q104, what is the highest level of school you attended currently?	Primary (grade1-8).....1 Secondary (grade 9-12)2 Technical/vocational (diploma/ certificate.....3 Higher (degree and above)4		
Q106	What is your religion?	Orthodox -----1 Protestant -----2 Muslim -----3 Catholic -----4 Other(specify)-----5		

Q107	What is your ethnicity?	Haddiya -----1 Kembata -----2 Amhara -----3 Gurage -----4 Silite -----5 Others(specify)-----6		
Q108	What is your current marital status? (Multiple Responses Possible)	Married1 Living together2 Widowed5 Divorced.....3 Separated.....4 Never married and never lived together/singl.....6		
Q109	What is your current main occupation?(multiple Responses Possible)	Governmental employee1 Privet/NGO employee.....2 Daily laborer.....3 Merchant.....4 House wife.....5 House maid.....6 Student7 Other(specify).....8		
Q110	If married or living together, What is your husband's main occupation?	Governmental employee ...1 Privet/NGO employee.....2 Daily laborer3 Merchant.....4 Student.....5 Other(specify)6		
Q111	Have your husband ever attended school?	Yes1 No0	113	
Q112	If yes for Q112, what is the highest level of school your husband attended currently?	Primary(1-8).....1 Secondary(9-12)2 Technical/ vocational (certificate/ diploma.....3 Higher(degree and above)4		
Q113	How much is the family monthly income? (including family members monthly salary, from farm, house rent, trade , milk rent and others. (do not	Total hous hold monthly income _____ETB		

	read the alternatives, but record all ideas they mentioned)			
Section -II: Past and present Obstetric factors A. Now I would like to ask you about your previous pregnancies, child birth and birth outcomes.				
Q201	Have you ever been pregnant in your life before the recent pregnancy? (Gravidity including abortion, ectopic pregnancy, still birth, died after birth and currently alive children)	Yes1 No0 	216	
Q202	If yes for Q201, how many times had you been pregnant before the recent pregnancy?	Number of pregnancies [-----]		
Q203	Have you ever given birth before present birth? (Including still birth and born alive, either preterm or term babies).	Yes1 No0		
Q204	If yes for Q203, how many times had you given birth before the	Number of birth order/ events [_____]		

	resent one? (Birth order/events).			
Q205	How many children had you delivered alive before the present one?	Numbers of children born alive before the present one [____]		
Q206	How many of your children are alive currently?	Number of children alive currently [____]		
Q207	Where did you give birth for the previous last birth?(Don't read the choice, but record what they mentioned)	Hospital1 Health post.....3 Health center2 Other (specify).....4		
Q208	Who assisted with the delivery for the previous last birth?	Doctors1 Traditional birth attendants.....4 Nurses/Midwife.....2 Others (specify)5 HEW3		
Q209	Do you have any history of surgery/operation previously done for child birth or other reason?	Yes1 No0		
Q210	Do you have any related bad occasions/problems occurred during the previous last pregnancy?	Yes.....1 No0 	Q212	

Q211	If yes for Q210, what was the problem happened? (Multiple responses are possible)	Vaginal bleeding1 Sever head ach, blurred vision, abnormal body movement.. 2 Intra uterine fetal death.....3 Rupture of membrane/ leakage of amniotic fluid.....4 Other(specify).....5		
Q212	Do you have any related bad occasions/ problems occurred during previous last child birth?	Yes.....1 No0 	Q214	
Q213	If yes for Q211, what was the problem happened?	Vaginal bleeding1 Prolonged labour.....3 Intrauterine fetal death....2 Other(specify)..... 4		
Q214	Do you have any bad occasions/ problems occurred within 6 weeks after the previous last child birth?	Yes.....1 No0 	216	
Q215	If yes for Q214, what was the problem happened? (Multiple responses are possible)	Sever head ach, blurred vision, abnormal body movement..1 High grade fever, offensive vaginal discharge.....2 Vaginal bleeding3 Other (specify).....4		
B. Now I would like to ask you about your recent pregnancy and maternal health service seeking characteristics.				
Q216	Did you attend ANC follow up for the recent pregnancy?	Yes1 No0		
Q217	Where did you receiving antenatal care for recent pregnancy?	Hospital1 Health center.....2 Other (specify)3		

Q218	How many visits did you attend during the recent pregnancy?	Only one visit.....1 Two to three visits.....2 Four and above visits.....3		
Q219	Whom did you see/provide antenatal care during the recent pregnancy?	Doctors1 Nurses/Midwife2 Others (specify)3		
Q220	During ANC visit, did the care providers told you that where you have to go to give birth when labour starts?	Yes1 No0		

Section-III Health facility child birth service provision related factors.

Now I would like to ask you some questions related with the present delivery service provided in the health facility.

Q301	Did you come directly from your home to this hospital?	Yes1 No0 	Q303	
Q302	If you came directly from home, who decided to come to this hospital?	Myself1 Both my husband and I....3 My husband.....2 Others (specify)4		

Q303	If you did not come directly from your home, from where did you come to this hospital?	From Hosanna health center.....1 From Lichamba health center.....2 From Bobicho health center.....3 Other (specify).....4		
Q304	Do you know the reason why you referred from the facility?	Yes.....1 No0	306	
Q305	If yes for Q304, What was the reason for referral?	_____ _____		
Q306	What is the mode of delivery for the present birth?	Vaginal delivery.....1 Caesarian section.....2 Other (specify).....3		
Q307	Which health facility is nearby to your home?	Hosanna health center1 Hospital4 Lichamba HC2 Others (specify)..... 5 Bobicho health center3		
Q308	On average how far is the health facility from your home?	Hospital; Kilometers...../ Hours---- Health center; Km-----/ Hours---		
Q309	Do you know the availability of delivery services in nearby health center?	Yes1 No0		
Q310	For this child birth service, why you did not go to nearest health center? (Don't read the choice) (Multiple responses are possible)	Unavailability of equipments and medications.....1 Unavailability of skilled and well experienced care providers.....2 Un respect full behavior of care givers.....3 Care providers were not available in the labour ward4 My family intention for highly qualified service.....5		

		Hospital is nearer than health centers to my home.....6 Health center is new and not fully equipped, so I have no trust.....7 Other (specify)8		
311	Have you ever visited any health center to receive whatever service before the recent pregnancy?	Yes1 No0		
312	If yes for Q311, please can you give your suggestion about the service provided during the visiting time previously?			

Section- IV Community factors. Now I would like to ask some questions about community related factors.

Q401	Is there any issue/ barrier that enforce delivering women not to give birth in health centers?	Yes1 No0		
Q402	If yes for the above question, so what is that barrier at community level?	1. ----- 2. ----- 3. -----		

Would you tell me your phone number to ask any missed/ incomplete information later?

09-----/46555-----

Annex-2 Amharic version questioner

ሀ. የጥናቱ መረጃ ቅጽ

ጤና ይስጥልኝ። ስሜ----- ይባላል። በዋቸሞ ዩኒቨርሲቲ የአራተኛ አመት አዋላጅ ነርስ ተማሪ ነኝ። ይህ ጥናት የሚካሄደው በአ.አ.ዩ.ጠናሳ ይኒሰክለጅ የህብረተሰብ ጠናት/በትክክት ባላረጋገጥኩም ከሆነ የጥናቱ ባለቤት የህብረተሰብ ጠናት ምህርት ሁለተኛ ደረጃ ማረጋገጫ ተማሪ ነኝ። እኔም የዚህ ጥናት መረጃ ስብሰባ በመሆን በምጥጋቤ ጠናጣቢ ያን አልፈው ወደ ሆስፒታል የምመጡ ወላጅ እና ቶች ቁጥር ምን እንደሚመስልና ተያያዥ ምክንያቶች ላይ ጥናት ከሚያደርገው ቡድን ጋር በመስራት ላይ እገኛለሁ።

የዚህ ጥናት አላማ፡ ወላጅ እና ቶች የወሊድ አገልግሎት ለማግኘት ወደ ጠናጣቢ መኸድ እየቻሉ አልፈው ለተመሳሳይ አገልግሎት ወደ ሆስፒታል የምመጡት በዛታቸው ምን እንደሚመስል እና ተያያዥ ምክንያቶች ምን እንደሆኑ ጥናት በማድረግ የማሻሻያ መንገዶችን መጠቀም ነው።

የምክተሉ ትንጠይቀህለይ/ዬ

1. በጠናጣቢ መውለድ እንደማትችል እና ምጥሳይ ጀምሮ ሽወ ይምክጀ መረሽ በሆኖ ላይ ስጥ ታልገብተሽ መውለድ እንዳለብሽ/በቀዶ ዶጥገና መውለድ እንዳለብሽ በጠናጣቢ ምድቶች ተነግሮ ሽነበር፤

መልሱ፡ <አዎን/አሁን ጥናቱ እንደማያካትት ታትገልፀህ/ሽ አመስግኑ/ሽ ወደ ቀጣይ እናት እለፍ/ፊ.

<አይደለም/አሁን ጥናቱ ስለምያካትት አመስግኑ/ሽ ወይ ይቱን ቀጥል/ይ

በዚህ ጥናት በመሳተፍ ያቀጥታለህ የሆነ ክፍያም ሆነ ጥቅም ጥቅም የለውም፤ ነገር ግን እርስዎ ለዚህ ጥናት በሚሰጡት መረጃ የጥናቱ ጤነኛ እና ቶችን ማዕከል ያደረገ የጤና አገልግሎትን በማጠናከር የእናቶችን ነፃነት ማጠናከርና ማረጋገጥ ማሻሻል ለህብረተሰብ በሚያስገኘው ጠቀሜታ የበኩል ያንበመው ጣት ያከፍተኛ የአእምሮአዊ ታያገኛለሁ ብዬ አምናለሁ፤ በጥናቱ ላይ ተሳታፊ ከሆኑ ከ10-15

ደቂቃ ብቻ ይወስድታል። የእርስዎ ስም በዚህ መጠይቅ ላይ አይሞላም። ስለዚህ የሚሰጡት መረጃ ሁሉ ሚስጢር ቁጥር ብቻ ማስገባት ጠቀሜታ አለው። ተሳትፎዎ ሙሉ በሙሉ በእርስዎ ፈቃደኝነት ላይ ብቻ የተመሰረተ ይሆናል። እንዲሁም በፈለጉት ጊዜ ይቱን ማቋረጥ ይችላሉ። ባለመሳተፍ ያለው ይቱን በማቋረጥ ያለ ሆስፒታል/ጤና ጣቢያ/ክሊኒክ ውስጥ የሚያገኙት አገልግሎት አይጓደልብዎትም። ይሁን እንጂ የእርስዎ ተሳትፎ በጣም አስፈላጊ በመሆኑ በጥናቱ እንዲሳተፉ ተስፋ እናደርጋለን።

ጥናቱን በተመለከተ ወይም ሌላ ጥያቄ አለዎት? ተጨማሪ ጥያቄ በማንኛውም

ጊዜ ከኖረዎት፤ ከዚህ በታች በተጠቀሰው አድራሻ ምናተ መራማሪያ ማግኘት ይችላሉ።

ስም፡ መለሰች አልሶ የስልክ ቁጥር፡ 0916839263 አድራሻ፡ አዲስ አበባ ዩኒቨርሲቲ፡ አዲስ አበባ E- Mail፡ meleelisso@gmail.com

ለ. የፍቃደኝነትማረጋገጫቅፅ

እኔበጥናቱላይእንድሳተፍየተጠየቅኩከዚህበላይበጥናቱመረጃቅፅላይየተቀመጠውንሀሳብበአግባቡበመረዳትከእኔ የሚጠበቀውንሁሉአውቂያለሁ፡፡ከዚህምሌላበጥናቱላይተሳታፊብሆንእኔየምሰጣቸውመረጃዎችለሶስተኛአካል ተላልፈውእንደማይታወቁናየግለሰብስምእንደማይካተትተረድቻለሁ፡፡በተጨማሪምወይይቱንየማልፈልገወከ ሆነበማንኛውምሰዓትያለምንምምክንያትማቆምእንደምችልናበማቆሜምእኔወይምበተሰባቸውክድርጅቱበሚያገኙ ትላልግለሁትላይምንምዓይነትተፅዕኖእንደማይኖረውአውቂያለሁ፡፡

በቃለመጠየቁለመሳተፍፈቃደኝነዎት? በጥናቱለመሳተፍ

1.ተስማምተዋል፡ አመስግነህ/ሽቃለመጠይቁንቀጥል/ይ

የሆስፕታልምዝገባወይምካርድቁጥር.....

2. አልተስማሙም፡አመስግነሽ/ህተሰናበች/ትእኖ ወደቀጣዬ እኛት እስፍ/ፌ.

ያልተስማሙበትምክንያትይገለጽ.....

የቃለመጠየቅአድራጊው/ዋስምምነት

ተሳታፊዎበጥናቱላይለመሳተፍፍቃደኝነትዋንየሚገልፅሰምምነትበፅሁፍመልክመወሰዱንናሰምምነቱምትክክ ለኛመሆኑንእገልጻለሁኝ፡፡

የቃለመጠይቅአድራጊው/ዋስም _____ ፊርማ _____

ቀን / _____ ወር / _____ / 2008 ዓ.ም

የእናትየዋኮድ -----/-----/-----/

የቃለመጠይቅአድራጊው/ዋኮድ፡

ቃለመጠይቁየተጀመረበትሰዓት -----፡----- ቃለመጠይቁያለቀበትሰዓት -----፡-----

የተቆጣጣሪው/ዋስም _____ ፊርማ _____

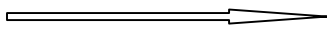
ቀን / _____ ወር / _____ / 2008 ዓ.ም

ጠቅላላ መመሪያ ለመረጃ ሰብሳቢዎች

የእናቲቱን መልስ በትክክል መስማት፣ ማክበብ እና መፃፍ ያስፈልጋል። የእናት ስም በመጠይቅ ላይ አይፃፍም።

ክፍል 1 አጠቃላይ የቤተሰብ ማህበራዊ እና ኢኮኖሚያዊ ሁኔታ

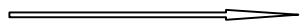
በመጀመሪያ ደረጃ ስለራስሽ/ዎ እና ስለ ቤተሰብሽ አጠቃላይ ሁኔታ እጠይቅሻለሁ።

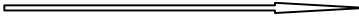
ተ.ቁ	ጥያቄ	መልስ	እለፊ	ኮድ
101	እድመዎ/ትስንትነው;	አመት		
102	የአሁን መኖሪያዎት/ሽያትነው;	ሆሳዕና ከተማ1 ከሆሳዕና ከተማውጭ0		
103	በሆሳዕና ከተማ በየትኛው ክ/ከነው የሚኖሩት/ኖሪው;	ጎፈር ሜዳ/ከተማ-----1 ቦብቾ ክ/ከተማ-----2 ሰችዱና ክ/ከተማ-----3		
104	ት/ቤት ገብተው/ሽመደበኛትም ህርት ተከታትለው/ሽያው ቃለ/ታውቂያለሽ;	አዎ1 አልተከታተልኩም0 	106	
105	እስካሁን የተከታተልሽው ከፍተኛ የትምህር ደረጃ ስንትነው;	አንደኛ ደረጃ (1-8)-----1 ሁለተኛ ደረጃ (9-12)-----2 ቴክኒክና ሙያትም ህርት (ሰርተፍኬት/ድፕሎማ)-----3 ከፍተኛትም ህርት (ድግሪ እና ከዛባ)-----4		
106	የየትኛው ህይማኖት አባል ናት/ሽ;	ኦርቶዶክስ1 ፕሮቴስታንት 2 ሙስሊም 3 ካቶሊክ4 ሌላ (ይግለፁ).....5		
107	ጎሳዎት/ሽምን ድንገው;	ሀዲያ 1 ጉራጌ 4 ከምባታ 2 ስልጤ5 አማራ 3 ሌላ (ይግለፁ)6		

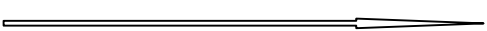
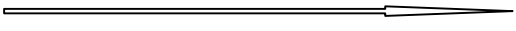
108	የአሁን የጋብቻ ሁኔታ ምን ይመስላል; (ምርጫው አይነበብም እና ትየው የምትለውን ብቻ ከምርጫው ውስጥ ለይተህ/ሽአክብብ/ቤ)	ያገባች 1 ያላገባች ግን አብራው የምትኖር... 2 ህጋዊ ፍቺ የፈፀመች..... 3 ከባለሙያ የተለያየች..... 4 ባልየሞተባት..... 5 ያላገባች አብራው ምንም ዓይነት ኖር..... 6		
109	በአሁን ሳካት ያለው የአንቺ/ እርስዎ የሥራ ሁኔታ ምን ይመስላል; (ምርጫው አይነበብም እና ትየው የምትለውን ብቻ ከአክብብ/ቤ)	የመንግስት ሰራተኛ..... 1 የቤት እመቤት..... 5 የግል ድርጅት ሰራተኛ..... 2 የሰው ቤት ሰራተኛ..... 6 የቀን ሰራተኛ..... 3 ተማሪ..... 7 ነጋዴ..... 4 ሌላ (ይግለፁ)..... 8		
110	ባለትዳር ከሆንሽ፤ የባለቤትሽ/ዎ የሰራ ሁኔታ ምን ይመስላል;	የመንግስት ሰራተኛ ----- 1 ነጋዴ----- 4 የግል ድርጅት ሰራተኛ----- 2 ተማሪ----- 5 የቀን ሰራተኛ----- 3 ሌላ (ይግለፃ)----- 6		
111	ባለቤተሽ/ዎ ትምህርት በትግብተው መደበኛ ትምህርት ተምረዋል;	አዎ 1 አልተማረም 0		
112	ለጥያቄ 111 መልሱ አዎን ከሆነ የባለቤትሽ/ዎ የትምህርት ደረጃ ምን ይህልነው;	አንደኛ ደረጃ 1 ሁለተኛ ደረጃ..... 2 ቴክኒክ እና ሙያ ትምህርት 3 ከፍተኛ ትምህርት..... 4		
113	የቤተሰብ አጠቃላይ ወርሃዊ ገቢ ምን ይህልነው; (የወር ደሞዝ ከሁሉም የበተሰብ አባል፣ ከእርሻ፣ ከቤት ክራይ፣ ከወተት ክራይ፣ ከንግድ፣ ከሌላም) (ምርጫው አይነበብም)	አጠቃላይ ድምር የእትዮጵያ ብር . _____		

ክፍል-2 ከበፊት እና ከአሁን እርግዝና እና ወሊድ ጋር ተያያዥነት ያላቸው መንስዕዎች

ሀ. ከዚህ በመቀጠል ከዝናው በፍትህ ከነበረው/ሩ እርግዝና እና ወሊድ ጋር ተያያዥነት ስላላቸው ጉዳዮች እጠይቃለሁ።

201	ከዝኛውብፍትነፍሰጡርሆነሽታውቂያለሽ (ውርጃ፤ ከማህፀንውጨእርግዝናሞተውየተዎለ ዱ፤ በጨቅላእድመየሞቱእናበህይወትያሉትንበ ማካተት)	አዎ1 አላረገዝኩም0 	216	
202	ለጥያቄ 201 መልስሽ/ዎአዎንከሆነ፤ ከዝኛውብፍትበአጠቃላይ ስንትጊዜነፍሰጡርሆነሻል/ዋል;	በቁጥር _____ ጊዜ		
203	ከዚህኛውብፊትልጅወልደሻል/ዋል (ከእርግዝና ፖርትፖርትስሰመጨረሻመውለጃቀንድረስሞተውየ ተዎለዱእናበህይወትየተዎለዱባጠቃላይ)	አዎ1 አልወለድኩም0		
204	ለጥያቄ 203 መልስሽ/ዎአዎንከሆነ፤ ከዚህኛውብፊትስንትጊዜ ልጅወልደሻል/ዋል;	በቁጥር _____ ጊዜመልጃለሁ		
205	ከዚህኛውብፊትስንትልጅበህይወትወልደሻል/ዋል ;	በህይወትየተዎለዱልጆችብዛትነው		
206	ከዝህኛውብፍትበህይወትያሉልጆችሽ/ዎብዛትስን ትነው፤	በቁጥር _____ በህይወትአሉ		
207	ከዚህኛውብፊትየተወለደውንየመጨረሻልጅየትወ ለድሽ; (ምርጫውአይነበብም)	ሆስፒታል1 ጤናኬላ.....3 ጤናጣቢያ.....2 ሌላ (ይገለፁ).....4		
208	ከዚህብፊትየተወለደውንየመጨረሻልጅሽንማንአ ዋለደሽ; (ምርጫውአይነበብም)	ዶክተር 1 አዋላጅነርስ.....2 ኤክስቴንሽንባለሞያ3 የልምድአዋላጅ.....4 ሌላካለ (ይገለጹ).....5		
209	ከዚህብፊትበወሊድወይምበለላምክንያትቀዶጥገና ወይምሙሉአፕራሲዮንተደርገሻል	አዎን1 አልተደረግኩም0		
210	ከዚህኛውብፊትበነበረውየመጨረሻእርግዝናወቅ ትያጋጠመሽተያያዥችግርየምታስታውሽውአለ;	አዎን 1 የለም0 	212	

211	ለጥያቄ 210 መልስሽአዎንከሆነምንነበርያጋጠመሽችግር፤ (ምርጫውአይነበብም) ከአንድበላይምርጫ/ ያጋጠማቸውንችግርመግለፅይችላሉ.	ከማህጸንደምይፈስነበር.....1 ከፍተኛራስምታት፤ ብሻርታማንቀጥቀጥ2 በማህጸንውስጥልጅሞቶነበር.....3 ምጥሳይጀምርየሽርትውሃፈሶነበር.....4 ለላካለ (ይግለጹ).....5		
212	ከዚህኛውበፊትበነበረውየመጨረሻወሊድግዘያጋ ጠመሽተያያዥችግርየምታስታውሽውአለ;	አዎን 1 የለም0 	214	
213	ለጥያቄ 212 መልስሽአዎንከሆነምንነበርያጋጠመሽችግር፤ (ምርጫውአይነበብም) ከአንድበላይምርጫ/ ያጋጠማቸውንችግርመግለፅይችላሉ.	ከማህጸንደምይፈስነበር.....1 በማህጸንውስጥልጅሞቶነበር.....2 ምጥቆይቶብኝነበር.....3 ለላካለ (ይግለጹ).....4		
214	ከወሊድበኅላበስድስትሳምንትውስጥያጋጠመሽተ ያያዥችግርየምታስታውሽውአለ;	አዎን 1 የለም0 	216	
215	ለጥያቄ 214 መልስሽአዎንከሆነምንነበርያጋጠመሽችግር፤ (ምርጫውአይነበብም) ከአንድበላይምርጫ/ ያጋጠማቸውንችግርመግለፅይችላሉ.	ከማህጸንደምይፈስነበር.....1 ከፍተኛራስምታት፤ ብሻርታማንቀጥቀጥነበር.....2 ትኩሳት፤ ሽታያለውየማህጸንፈሳሽነበር.....3 ለላካለ (ይግለጹ).....4		
ለ. ከዝህበመቀጠልበአሁንእርግዝናወቅትስለነበረሽ/ርትየእርግዝናክትትልእጠይቅሻለሁ/ቆታለሁ				
216	አሁንየተወለደውንልጅነፍሰጡርእያለሽ/ለየእር ግዝናክትትልነበረሽ/ዎት	አዎ 1 አልነበረኝም0 	301	
217	የትነበርየምትክታተይው፤ (ምርጫውአይነበብም)	ሆስፒታል1 ጤ/ጣቢ2 ሌላ (ይገለፁ)3		
218	ከጀመርሽ/ሩበሆዋላስንትግዘተክታተልሽ/ሉ;	አንድግዘብቻ.....1		

		ከ2-3ግዜ.....2 አራት እና ከዝያ በላይ.....3		
219	ማንነብር የምከታተልሽ; (ምርጫው አይነብም)	ዶክተር.....1 ነርስ/አዋላጅ ነርስ.....2 ሌላ (ይገለፁ) 3		
220	በእርግዝና ክትትል ዎቅት ሚጥስ ጀምሮ ትክክል መውለድ እንዳለብሽ ተነግሮሻል/ዋል;	አዎ 1 አልተነገረኝም 0		
ክፍል ሶስት፡- ከጠናተቋማት የምሊድ አገልግሎት አሰጣጥ እና አቅርቦት ጋር ተያያዥነት ያላቸው መንገዶች፤ በመቀጠል የሚጠይቅሽ/ዎት ከዚህኛው ወሊድ ጋር ተያያዥነት ያላቸው ጥያቄዎች ነው፡፡				
301	ቀጥታ ከቤትሽነው ወደ ዚህ ሆስፒታል የመጣሽው;	አዎ1 አይደለም 0 	303	
302	ቀጥታ ከቤትሽነው መጣሽ፤ ወደ ሆስፒታል ልእንድትመጪ ማንነብር የወሰነው;	እራሴ.....1 እኔ እና ባለቤቴ.....3 ባለቤቴ.....2 ሌላ (ይገለፁ)4		
303	ቀጥታ ከቤትሽነው መጣሽ ከየትነው ደዝህ ሆስፒታል የመጣሽው፤	ከሆላክና ጠናጣብያ1 ከቦብ ሸጠና ጣብያ3 ከልች አምባ ጠናጣብያ2 ለላካለ ይግለጹ4		
304	ወደ ሆስፒታል የተላክሽበት ንምክንያ ትታውቂያለሽ;	አዎን.....1 አላውቅም0 	306	
305	ለጥያቄ 304 መልስሽ አዎን ከሆነ፤ ለምን ድነው የተ ላክሽው፤			
306	አሁን በምን አይነት ሁኔታ ነው የዎለድ ሽው;	በማህፀን-----1 በሙሉ አፕራስዮን.....2 ለላ (ይገለፁ).....3		

307	የትኛውጠናድርጅትነውለቤትሽበጣምየሚቀርበው;	ሆላእናጤናጣቢያ.....1 ሆስፒታል.....4 ሊቸአምባጤናጣቢያ...2 ሌላ (ይገለፅ).....5 በብቻጤናጣቢያ.....3		
308	በአቅራቢያሽያምገኝጤናድርጅትበአማካይከቤትሽምንያህልይርቃል;	ሆስፒታልበኪሎ.ሜ..... ጤናጣቢያበኪሎ.ሜ በሰዓት/ደቅቃ..... በሰዓት/ደቅቃ.....		
309	በጤናጣቢያውስጥሙሉየወሊድአገልግሎትእንደሚሠጥታውቂያለሽ;	አዎ 1 አላውቅም 0		
310	ይህንንየወሊድአገልግሎትለማግኘትበአቅራቢያሽዎደምገኘውጤናጣቢያያልሄድሽውለምንድነው; (ከአንድምክንያትበላይመምረጥ/መግለፅይችላሉ)	ጠናጣቢያውስጥበቂመሳሪያእናመድሃኒትስለሌለ.....1 የሰለጠኑናልምድያላቸውባለሞያዎችስለሌሉ.....2 ነርሶቹበአክብሮትናበሀዘኔታስለማያስተናግዱ.....3 ጠናጣቢያስደርስበማዋለጃክፍልውስጥየምቀበሉኝነርሶችስላልነበሩ...4 እኔናባለቤቴየተሻለየወሊድአገልግሎትለማግኘትስለምንፈልግ....5 ሆስፒታሉለመኖሪያቤቴቅርብስለሆነ.....6 ጠናጣቢያውአድስስለሆነአልተማመንበትም7 ሌላ (ይገለጹ)8		
311	መቼምብሆንማንኛውንምየጠናአገልግሎትለማግኘትለራስዎወይምለሌላሰውጠናጣቢያሽደውያውቃሉ;	አዎን.....1 አልሽድኩም0		
312	ለጥያቄ 311 መልሱአዎንከሆነ፣ በዝያንግዘስለተሰጠትየጠናአገልግሎትምንአስተየትአሎት;	-----		

ክፍልአራት፡- ከህብረተሰብጋርተያያዥነትያላቸውመንሴዎች

በመቀጠልየምጣይቅሽ/ዎከምኖሩበትማህበረሰብጋርተያያዥነትያላቸውንጥያቄዎችይሆናሉ፡፡

401	በምኖሩበትማህበረሰብውስጥወላድእናቶችየወሊድ አገልግሎትለማግኘትጤናጣቢያንአልፈውወደሆስፕታልእንድመጡየምገፋፋየባህልተዕኔኖወይምአባባልአለ፤	አዎ.....1 የለም 0		
402	ለጥያቄ 401 መልሱአዎንከሆነምንእንዳለልትነግሪኝትችያለሽ፤	_____ _____		

በመጠይቁውስጥያልተጠየቀሃሳብካለደውሎመጠየቅየምቻልከሆነስልክቁጥርሽን/ዎንመውሰድእችላለሁ-09-----

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አመሰግናለሁ!!!!!!

Declaration

I the undersigned, declare that this thesis is my original work, has never been presented in this or any other university, and that all resources and materials used for the thesis have been duly acknowledged as complete reference.

Name of student: Melesech Elisso

Signature _____

Date of submission: _____

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

Name of Advisor _____

Signature: _____

Date _____