

2017-05

# Determinants of Postnatal Care in Rural Community of Gonji Kolela Woreda, West Gojjam, Amhara Regional State: Case Control Study

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COLLEGE OF MEDICINE AND HEALTH SCIENCE

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Determinants of postnatal care in rural community of Gonji Kolela Woreda, West Gojjam, Amhara Regional State: case control study

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A thesis submitted to Bahirdar University College of Medicine and Health Science School of Public Health as a partial fulfillment of the requirements for the degree of Master of Public health in epidemiology

Bahir Dar, Ethiopia

May,2017GC

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Full title of the research project	Determinants postnatal utilization, a case control study
Duration of the study	January1 to April30, 2017
Study area	Gongi kolelaWoreda, North Wets Ethiopia
Total cost of the study	18000

Bahirdar University

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Department of Epidemiology and Biostatistics

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West Gojjam, Amhara Regional State: case control study

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## ACKNOWLEDGMENTS

In all that I have accomplished, first I give thanks to the Almighty God for the gift of life, health and renewed strength for each day He gave me to do this work. Then My lovely wife and to my sister; I convey my heartfelt gratitude for your love, loyalty, support and enthusiasm shown throughout the study. My supervisors: Mr. Zelalem and Mr. Dabere I am sincerely indebted for your tireless efforts in advising, guiding and supervising this entire work. And also I would like to thank Bahirdar University colleague Medicine and Health Science school of Public Health for giving me this chance. Lastly but not least I would like to thank my study participants and Gonji kolela woreda health office.

## ACRONYMS

ETB.....Ethiopian Birr

EPNC.....Early Post Natal Care

DC.....Data Collectors

PNC.....Postnatal Care

PI.....Principal Investigator

RHB.....Regional Health Bureau

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## **Abstract**

**Introduction:** The postnatal period starts from one hour after the birth of placenta and ends 42 days. The days and weeks following childbirth, the postnatal period, is a critical phase in the lives of mothers and newborn babies. Most maternal and infant deaths occur during this time. Yet, this is the most neglected period for the provision of quality care.

**OBJECTIVE:** The aim of this study was to identify determinant factors of postnatal care in Gonji kolela Woreda, West Gojjam zone, Amhara Region, North West Ethiopia, 2016

**METHODS:** A community based unmatched case control study design was employed from Jan, 2017 to April 2017 in Gonji kolela woreda West Gojam, Amhara region. 500 mothers (167 case and 333 controls) who delivered in the past 1 year residing in Gonji kolela Woreda who were selected from the study population using multistage sampling with simple random sampling techniques were included in the study. **A Case:** A woman who resided in Gonji kolela district and gave birth from Jan 2016 to Dec 2016 and attended at least one post natal visit after delivery. **A control:** A woman who resided in Gonji kolela district and gave birth from Jan 2016 to Dec 2016 who did not attend post natal visit after delivery.

Data on determinant factors were collected by interview method using structured Questionnaire. Bivariable logistic regression and multivariable logistic regression were used for the analysis. Data were entered, cleaned and edited using EPI-info software 3.5.1 and exported to SPSS version 20 statistical package for further analysis.

**Result:** Mothers having information on PNC were 6.713 times more likely to attend PNC as compared to mothers who have no information on PNC [AOR=6.713, 95% CI: (3.814-11.817)]. Mothers who were counseled to return back to health institution were 6.203 times more likely to attend PNC as compared to those who didn't get the advice [AOR=6.203, 95% CI: (3.500-10.993)]. Mothers who have transportation means were 4.965 times more likely to attend PNC as compared to those mothers who didn't access [AOR=4.965, 95% CI: (2.798-8.810)].

**Conclusion and Recommendation:** The determinant factors for postnatal care were mothers' information on postnatal care, availability of transportation and counseling received to come back for PNC. Health professionals during the postpartum period should strengthen to give intensive counseling for mothers to come back for postnatal service. Health care providers at community level should give information about postnatal care utilization as well as the importance of postnatal care utilization for the mother and neonate.

## 1. INTRODUCTION

The postnatal period – defined here as the first six weeks after birth – is critical to the health and survival of a mother and her newborn. The most vulnerable time for both is during the hours and days after birth. Lack of care in this time period may result in death or disability as well as missed opportunities to promote healthy behaviors, affecting women, newborns, and children(1).

The days and weeks following childbirth – the postnatal period – is a critical phase in the lives of mothers and newborn babies. Most maternal and infant deaths occur during this time. Yet, this is the most neglected period for the provision of quality care(2).

Lack of appropriate care during this period could result in significant ill health and even death. Rates of provision of skilled care are lower after childbirth when compared to rates before and during childbirth. Most maternal and infant deaths occur during this time(2).

A large proportion of maternal and neonatal deaths occur during the first 48 hours after delivery. Thus, prompt postnatal care (PNC) for both the mother and the child is important to treat any complications arising from the delivery, as well as to provide the mother with important information on how to care for herself and her child. Safe motherhood programmers recommend that all women receive a check of their health within 2 days after delivery(3).

Every year in Africa, at least 125,000 women and 870,000 newborns die in the first week after birth, yet this is when coverage and programmers are at their lowest along the continuum of care. The first day is the time of highest risk for both mother and baby. The fact that 18 million women in Africa currently do not give birth in a health facility poses challenges for planning and implementing postnatal care (PNC) for women and their newborns. Postnatal care (PNC) programmers are among the weakest of all reproductive and child health programmes in the region (1).

In Ethiopia, the levels of maternal and infant mortality and morbidity are among the highest in the world. The maternal mortality rate was 412 per 100,000 live births, and the infant mortality rate was 48 per 1,000(3)

When we see the effect of post natal utilization, half of all postnatal maternal deaths occur during the first week after the baby is born, and the majority of these occur during the first 24 hours after child birth. The leading cause of maternal mortality in Africa – accounting for 34 percent of deaths is hemorrhage, the majority of which occurs post nately. Sepsis claim another 10 percent of maternal deaths, virtually all during the postnatal period(1).

Sub-Saharan Africa has the highest rates of neonatal mortality in the world and has shown the slowest progress in reducing newborn deaths, especially deaths in the first week of life. Each year, at least 1.16 million African babies die in the first 28 days of life – and 850,000 of these babies do not live past the week they are born. Asphyxia claims many babies during the first day, and the majority of deaths due to preterm birth occur during the first week. Thirty-eight percent of babies in sub-Saharan Africa die of infections, mainly after the first week of life. The majority of these deaths are low birth weight (LBW) babies, many of whom are preterm. In addition, long term disability and poor development often originate from childbirth and the early postnatal period(1)

## 1.1 STATEMENT OF THE PROBLEM

The postnatal period starts from one hour after the birth of placenta and ends 42 days. After an uncomplicated vaginal birth in a health facility, healthy mothers and newborns should receive care in the facility for at least 24 hours after birth. At least three additional postnatal contacts are recommended for all mothers and newborns, on day 3 (48–72 hours) and between days 7–14 after birth, and six weeks after birth. Major changes occur during this period which determines the well-being of mothers and newborns. Yet, this is the most neglected time for the provision of quality services. Rates of provision of skilled care are lower after childbirth when compared to rates before and during childbirth. Most maternal and Infant deaths occur during postnatal period(2).

Knowing of the determinant factors of postnatal utilization is very important in reduction of maternal and new born mortality. Worldwide, only 30% of the mothers are following the postnatal care. Two-thirds of infant mortality takes place within the first month of life, and two-thirds of these deaths occur within the first week, while 60% of maternal deaths occur from the onset of labor through the first week(3).

Based on an analysis of 23 countries DHS 2005 more than two thirds of mothers in sub-Saharan Africa gives birth at home and for instance Eritrea 92%, Mali 85% and Rwanda 70% of mothers did not receive any post natal care checkup. Only 13% of the mothers in the sub-Saharan Africa who follows postnatal care checkup(4)

The level of postnatal care coverage is extremely low in Ethiopia. The great majority of women (92 percent) with a live birth in the preceding five years did not receive a postnatal checkup. Among women who received a postnatal checkup, 4 percent were examined within 4 hours of delivery, 2 percent within 4-23 hours, 1 percent within 1-2 days, and 2 percent within 3-41 days of delivery. In total, 7 percent of women received postnatal care within two days, as recommended(2). EDHS 2016 also show that only 16.5% of mothers receive postnatal care checkup(3)

And also there is high maternal death that affects the family, new born even old children survival and increase number of orphans, decrease productivity of the households. Despite of the fact that

high maternal and new born morbidity and mortality there has been low/little political and professional attention is given towards postnatal care (6).

And also there are discrepancies in access to maternal health care between the rich and poor, urban and rural and educated and uneducated societies, and also there is large gap in PNC coverage between developed and developing countries. There is lack of knowledge and information on post natal care service including the postpartum period and its danger sign symptom (7). Mothers do not come back to health facility after they give birth even though they have access and suffering because they do not know what is post natal care service, when and where to receive is given (8).

According to the annual reproductive health report of 2008, Gongi kolela district is the lowest performing district as far as Post Natal Care services are concerned with a 10 day visit uptake of 31% against an ante natal care uptake of 56%. Therefore this study will be conducted to assess the determinant factors of postnatal utilization in Gongi kolela Woreda.

#### RESEARCH QUESTION

What barriers hinder mothers from attending postnatal services?

## 1.2 JUSTIFICATION OF THE STUDY

Many Studies have been showed that the coverage of postnatal care follow up is too low and what factors affect the postnatal care follow up are not well identified. Poor post natal utilization takes to cost for maternal mortality, child mortality and morbidity in developing country especially in sub-Saharan Africa.

Reliable information about the determinant factors of postnatal utilization is essential for assigning sufficient priority and resource to increase the service provision. There is no study done in the woreda with regard to postnatal utilization though postpartum period is the very critical period for survival of the neonates and their mother. So, this study is going to fill partly the existing gaps concerning PNC and contribute an input for better planning, implementation of postnatal care and to provide other opportunities and efforts by all concerned sectors to reduce maternal and infant mortality.

It will also indicate policy makers, health providers and programmers the ways how to implement and evaluate existed newborn and maternal health programs. In addition, it will be used as reference for those who will conduct research on the same topic of related studies. The result will be hopefully also served as base line data for any none governmental organization working towards newborn and maternal health specially decreasing maternal and neonatal mortality within 42 days in Gongi kolela Woreda.



## 1.3 LITERATURE REVIEW

### 1.3.1 Utilization of postnatal care

A descriptive, cross-sectional study conducted in Nepal showed that; The proportion of women who had received postnatal care after delivery was low (34%).Less than one in five women (19%) received care within 48 hours of giving birth(5).

A descriptive, cross-sectional study conducted in Dembecha district showed that; the level of postnatal care service utilization was 34.8% of which 33.7% were within 48 hours of postpartum and about 0.8% within 2-7 days of delivery. About 77% percent of women had got ANC service during last pregnancy while 31.4% of the sample women had delivered their last child in health institution. From the total ANC attendants, only 41.3% had got postnatal care service. While among home delivered women only 35 (4.8%) received PNC service the rest 30% were women who had delivered at health institution(6).

community based cross sectional study which is supplemented by qualitative method assessed postnatal care service utilization and associated factors among mothers who give birth 12 months prior to the study period in Lemo Woreda, Hadiya Zone, SNNPR, Ethiopia showed that among the 352 postpartum mothers, 181 (51.40%) obtained PNC during the six weeks following deliver(7)

Institutional based cross sectional study conducted Selected Government Health Centers in Addis Ababa showed that the proportion of postnatal care visit across 48hrs of discharge, after one week of discharge and at six weeks of postpartum were 28(10.1%), 199(71.9%) and 143(51.6%) respectively. With regard to the frequency of postnatal care visit, 159(57.4%) of participants had visited once, 112(40.4%) women had two time, and the remaining 6(2.2%) were having three or more(8).

A community-based cross-sectional study design was conducted in Adwa town; the study showed that 264 (78.3%) mothers had attended postnatal care service while 73 (21.7%) hadn't attended postnatal care(9).

A community based cross sectional study conducted in Abi-Adi, Tigray; the finding revealed that postnatal care follow up in the study area is low (11.9%)(10).

Community based, cross-sectional study conducted Gondar zuria district supported by a qualitative study conducted that; the majority of the women (84.39 %) were aware and considered PNC necessary (74.27 %); however, only 66.83 % of women obtained PNC(11).

A community based cross-sectional study conducted in Debremarkos town showed that Postnatal care service utilization was found to be 33.5%.(12)

Community based cross-sectional study conducted Jabitena district showed that 20.2% mothers utilized postnatal care service(13)

### 1.3.2 Factors Affecting post natal utilization

Cross-sectional study conducted in Dembecha district showed that; distance, place of delivery; ANC service utilization and educational status of women were vital determinants of PNC service utilization among the study population. Even though small in magnitude maternal images on health care service provider has significant pressure on PNC service utilization. Out of non PNC utilizers lack of awareness about the service was mentioned as the major determinant factor accounting half of the raised reason. So maternal awareness on PNC and other services is vital to attain this service utilization (6)

A community-based cross-sectional study design was conducted in Adwa town showed that self employed mothers, awareness about postnatal care service more likely to have had postnatal care than women who hadn't any job, lack of awareness about postnatal care service. It could be good if the ministry of health strengthen the situation and assess barriers other than informational barriers so that able to raise the utilization of the service(9)

A community based cross sectional study conducted in Abi-Adi, Tigray: Postnatal care utilization in the study area is low. Maternal education, mother's attitude towards importance of postnatal care, Mothers counseling /advice to return back for postnatal care and mother's decision to attend postnatal care were the main factors associated with PNC(14).

A community based cross-sectional study conducted in Debreworkos town showed that Awareness about maternal complication, place of delivery of last child, outcome of birth, delivery by cesarean section, and delivery complication that occurred during birth, were factors associated with postnatal care service utilization. Postnatal care service utilization was found to be low. Increasing awareness about postnatal care, preventing maternal and neonatal complication, and scheduling mothers based on the national postnatal care follow-up protocol would increase postnatal care service utilization(12)

Community based cross-sectional study conducted Jabitena district showed that Educational status of the mother, final decision maker on health care service utilization, number of pregnancy, place of delivery and being aware of at least one postpartum obstetric danger sign were found to be significantly associated with post natal care service utilization(13)

Cross sectional two- stage cluster sampling study representing the entire country in NDHS 2011 conducted that Mothers who were from urban areas, from rich families, who were educated, whose partners were educated, who delivered in a health facility, who had attended a four or more antenatal visits, and whose delivery was attended by a skilled attendant were more likely to report attending at least one postnatal care visit. Mothers who reported agricultural occupation, and whose partners performed agricultural occupation were less likely to attend immediate postnatal care. Increasing utilization of the recommended four or more antenatal visits, delivery at health facility and increasing awareness and access to services through community-based programs especially for the rural, poor, and less educated mothers may increase postnatal care attendance in Nepal(15).

A descriptive research design conducted in Amassoma community, Bayelsa State, Nigeria showed that the major variables associated with barriers to utilization of maternal health services among respondents were poor knowledge of the existing services, previous bad obstetric history; attitude of the health care provider, availability, accessibility and husband's acceptance of the maternal healthcare services.(16)

A population-based Cross-sectional study conducted in Kenya shows the most important maternal health care delivery factors that influence PNC use are attending at least four ANC visits, and delivering in health facilities; these two positively related to use PNC services.(17)

A secondary analysis of the 2010 Demographic and Health Survey, a national multi-stage, cross-sectional survey in Rwanda revealed that delivering at a health facility, being married but not involved with one's own health care decision-making compared to being married and involved, mother's older age at delivery was negatively associated with PNC use(18).

A cross-sectional study conducted in Eastern Uganda revealed EPNC attendance was significantly associated with formal employment and education about postnatal care schedules. Women at public health facilities were significantly less likely to have attended EPNC than were those at private facilities. An increase in length of hospitalization by 1 day was associated with reduced EPNC utilization(19).

A case control study conducted in Namibia revealed that statistical significance was found between the women who attended postnatal care and those who did not attend postnatal care while they were having their first babies ;between the women who attended postnatal care and those who did not attend postnatal care while they were having their second babies as the p value is(  $p=0.00$ )(20).

Statistical significance was also found between the women who attended postnatal care and those who did not attend postnatal care while they were having their third babies as the p value is(  $p=0.001$ ). It is concluded that more women in the control group have been utilizing post natal care services comparing to the women in the case group. By comparison, a high number of mothers in the case group were not at all informed to attend postnatal care (76.3 %), while in the control group only 4.2 % of mothers were not informed at all to attend postnatal care, however there was no statistical significant difference found between the women who attended postnatal care and those who did not attend postnatal care with regard to number of children alive, number of pregnancies and place of delivery. But lack of transport was a determinant factor for postnatal care utilization(20).

A case control study conducted in Zimbabwe Bikita District revealed that Mothers who attained secondary/ tertiary level education had a OR 0.96 95% CI(0.58:1.60) 96% increased likely hood of attending PNC as compared to mothers who did not although it was not statistically significant. Residing in rural communities was a risk factor with mothers residing in village or resettlement communities being OR 2.2 95% CI (1.05:3.5) 2 times more likely not to attend the first 10day PNC visit as compared to mothers who stayed in urban communities(21).

Mothers who delivered at home were OR, 2.7 95% CI (1.39:5.30) times more likely to miss the first 10 PNC visit than mothers who delivered at health centers. Mothers who reported that their local health centre was far were OR 4.0 95% CI (2.6:7.2) times more likely to miss the first 10 days PNC visit than mothers who reported that their health centre was not far(21).

### 1.3.3 Conceptual framework

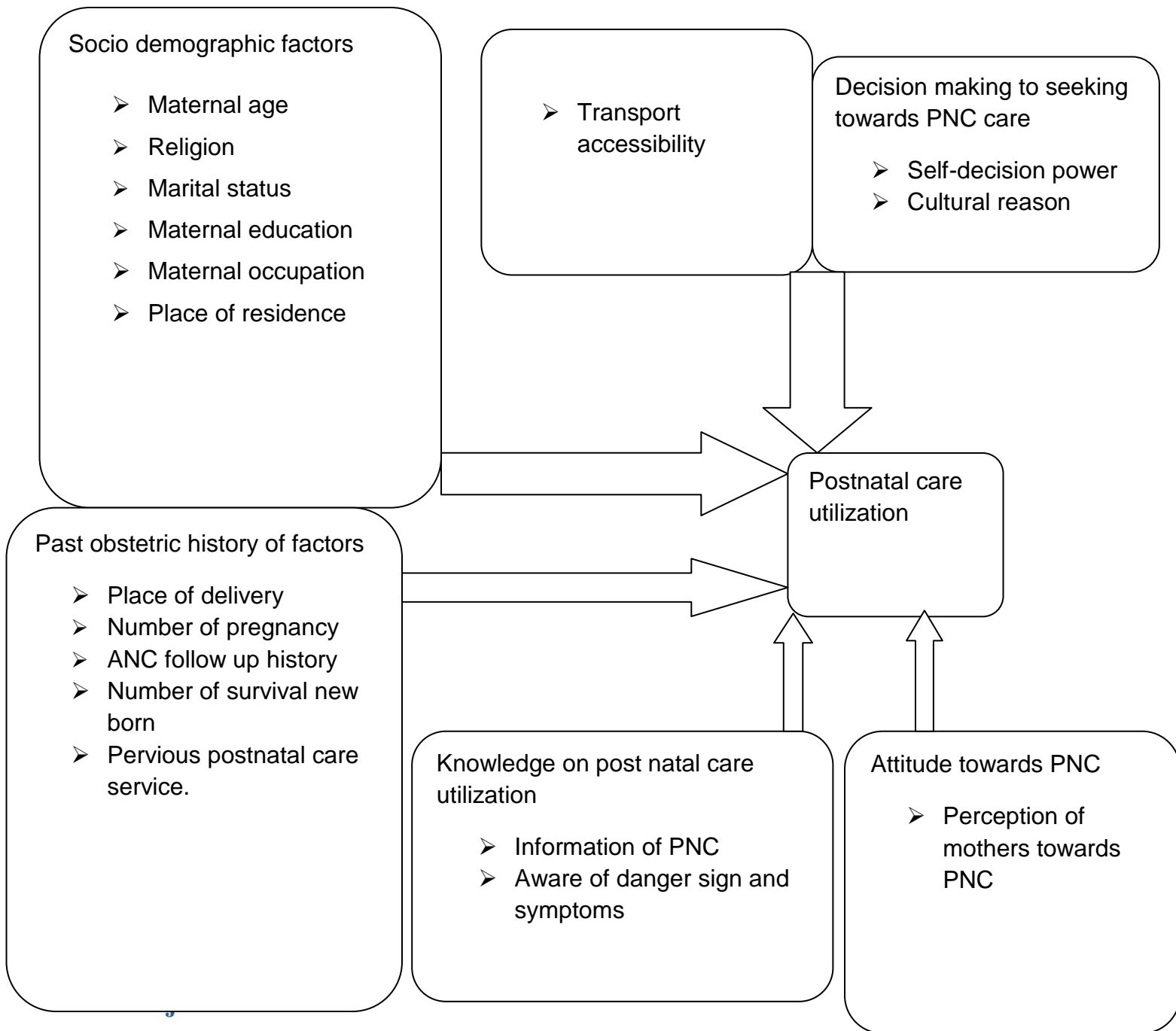


Figure 1: Conceptual framework

## 2. OBJECTIVE OF THE STUDY

To identify determinant factors of postnatal care in Gonji kolela Woreda, West Gojjam zone, Amhara Region, North West Ethiopia, 2016

## 3. METHODS

### 3.3 Study Area

Gonji kollela is found in Amhara region, west gojjam zone. It is situated about 72 Km from capital city of Amhara region and is bordered by North Dera and Yelman Densa Woreda, by East Huletejeensie Woreda, by South Dega Damote and Qourite Woreda and by West Yelman Densa Woreda. It has a total area of 69,073.13 hectare. The climatic condition, 40%, woina Dega and 60%, kola. It has 24 rural Kebele and two urban kebele and a total population of 124341 of which 51 % males and 49 % females, and a total of households 27786 the data found from Gonji Kolela Woreda health office 2016.

### 3.2 Study period

The study was conducted from Jan, 2017 to April 2017 in Gonji kolela woreda West Gojam, Amhara region.

### 3.1 Study design

A community based unmatched case control study design was employed in Gonji kolela Woreda West Gojam, Amhara region.

### 3.4 Source population

3.4.1 Source population for cases All mothers who gave birth from January 2016 to December 2016 in Gonji kolela Woreda and who had at least one postnatal care follow up

### 3.4.2 Source population for controls

All mothers who gave birth from January 2016 to December 2016 in Gonji kolela Woreda and who didn't have postnatal care follow up

### 3.5 Study population

All mothers who gave birth from January 2016 to December 2016 in the selected households of Gonji kolela Woreda.



**A Case:** A woman who resided in Gonji kolela district and gave birth from Jan 2016 to Dec 2016 and attended at least one post natal visit after delivery.

**A control:** A woman who resided in Gonji kolela district and gave birth from Jan 2016 to Dec 2016 who did not attend post natal visit after delivery.

### 3.5.1 Inclusion criteria

- All mothers who gave birth from Jan 1,2016 to Dec 30, 2016 in Gonji kolela Woreda who are willing to participate in the study

### 3.5.2 Exclusion criteria

- Critically ill mothers

## 3.6 Sample size determination

Using Epi info Stat calc function at 95% CI, 80% power, expected frequency of exposure in the control group of 13.9% using the variable of women age between 15-20 less likely to have had postnatal utilization (a finding from a study conducted in Namibia on determinants of postnatal utilization) a sample size of 312 (104 cases and 208 controls) was required.

By assuming 10% non response rate and design effect (1.5) the final sample size was =500(167 cases and 333 controls)

## 3.7 Sampling procedure

A Multistage sampling technique was employed to select study participants. The Woreda was divided into urban and rural kebeles. Then one urban and ten rural Kebeles was selected by simple random sampling technique. A simple random sampling was used to select study participant from selected kebeles. From the health extension workers birth registration books and health center PNC registration study participant's identification numbers and contact addresses were obtained for mothers who give birth from Jan 1, 2016 to Dec 30, 2016.

After knowing the number of cases and controls in each selected kebeles proportional allocation was used to select study participants

## Schematic presentation of sampling procedure

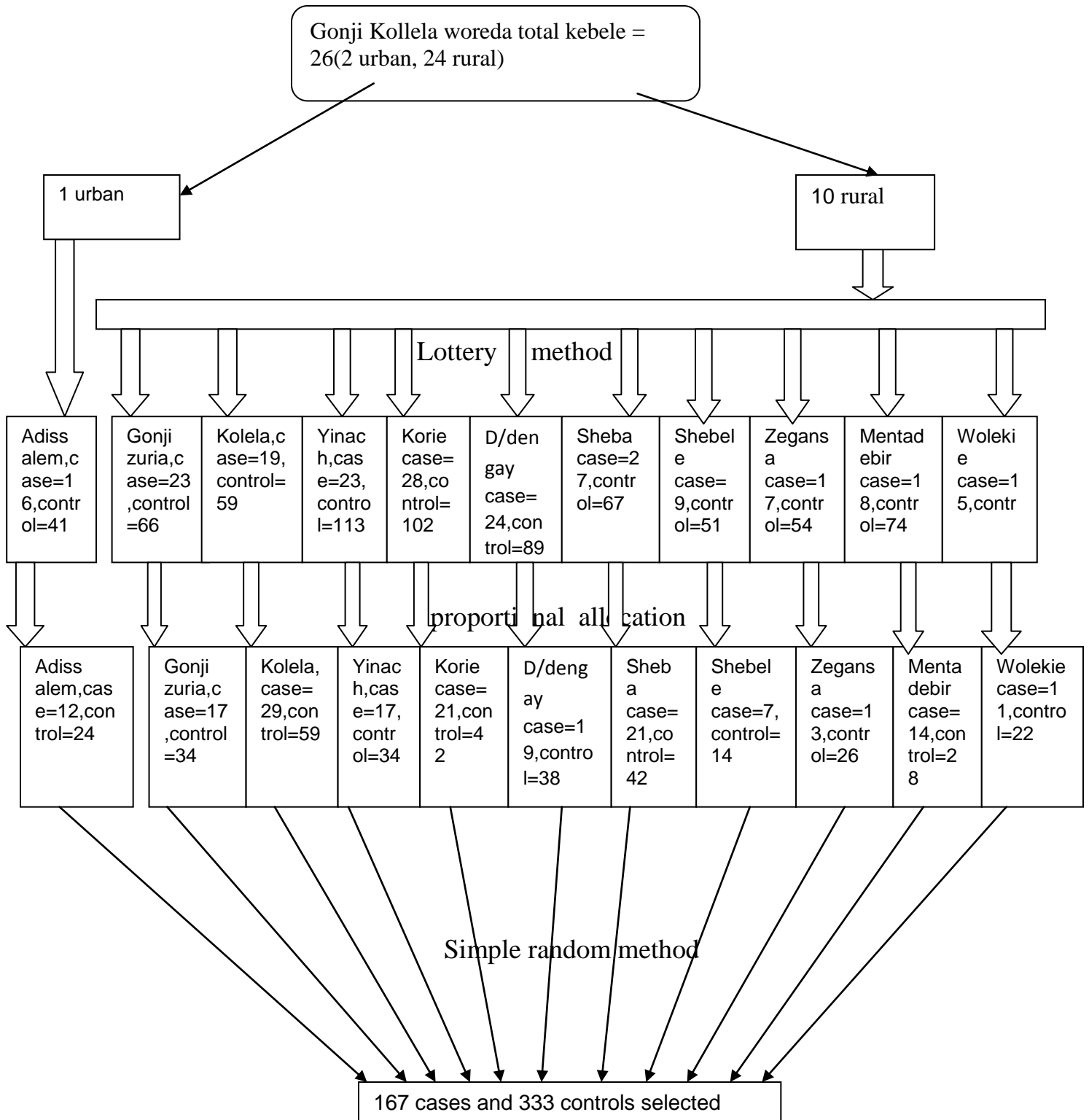


Figure 2: Schematic presentation of sampling procedure

## 3.8 VARIABLES

### 3.8.1 Dependent variable

- Postnatal care

### 3.8.1 Independent variables

- Maternal education
- religion
- Women attitudes towards the importance of PNC
- Place of delivery
- Number of pregnancy
- Health care decision maker of the mother
- Mother know danger sign during postnatal period
- Area of residence
- ANC follow up history
- Knowledge/Information heard about PNC
- Health workers counseling to the mother to return back for postnatal care

## 3.9 Operational Definitions

**Postnatal care:** Care was given to a mother and newborn for a period of six weeks from the time of delivery.

**Postnatal period:** The period that starts from one hour after the birth of placenta and up to ends of six weeks after delivery

**Permanent residence:** mothers lived more than six months duration in the study area.

**Knowledge on danger sign:** mother know at least one danger sign of postnatal period

## 3.10 Data collection Instruments and procedures

Data was collected using structured questionnaire. The questionnaire was developed and adapted by reviewing different literatures and standard WHO Questionnaires. Data was collected by trained female nurse/midwife. Four data collectors and two supervisors were used. Data collectors and supervisors got training for half days by principal investigators on objective of the study, methodology of data collection, interviewing approach and data recording.

### 3.11 Data quality control

To control data quality, questionnaire was prepared in English and translated into local language (Amharic) and back to English, data collectors got training on data collection techniques. The questionnaire was pre-tested on non-selected kebeles study participant; to check for ambiguity and sequencing of questions, prior to the actual data collection time in other kebeles. In addition, the completeness, accuracy and consistency of the collected data were checked on daily basis during the data collection time, by the principal investigator and supervisors.

### 3.12 Data processing and analysis

Raw data were entered cleared and edited using EPI-info software 3.5.1 and was exported to SPSS version 23 statistical package for further analysis. Data cleaning was performed to check for accuracy, consistencies and missed values and variables. Descriptive like tables and percentages were used. bivariable logistic regression was conducted primarily to check which variables to have association with dependent variables individually. Variables that have P value  $<0.2$  entered to multivariable logistic regression for controlling the possible effects of confounders and finally the variables which have significant association were identified on basis of Odds Ratio OR, with 95% CI and 0.05 p-value.

## 4. ETHICAL CONSIDERATIONS

The study was carried out after getting approval from the Institutional Review Board of school of public health, Bahr Dar University. A letter of support which indicates the objective of the study was written from Bahr Dar University. Permission letter was obtained from the regional health bureau (RHB), zonal health department and Woreda health office.

The purpose of the study was explained to the participants and the willingness of households was obtained before interview in every household

## 5. RESULTS

### 5.1 Socio-Demographic Characteristics of Study Participants

A total of 500 participants (167cases and 333 controls) were included in the study. Most of the participants 450(90%) were Amhara in ethnicity. With regard to religion most of the respondents in both cases and controls were orthodox.

**Table 1: Socio-demographic characteristics of respondents on PNC utilization in Gonji kolela Woreda 2017**

variable	category	cases		controls	
		number	percent	number	percent
<b>Age</b>	15-20	12	7.2	24	7.2
	21-25	47	28.0	75	22.5
	26-30	63	37.7	128	38.4
	31-35	28	16.8	73	21.9
	36-40	10	5.9	25	7.5
	41-45	7	4.2	8	2.4
<b>Marital status</b>	Single	7	4.2	9	2.7
	Married	153	91.6	316	94.9
	Divorced	7	4.2	8	2.4
<b>Educational level</b>	Not educated	109	65.3	268	80.5
	Can read and write	32	19.2	43	12.9
	Grade1-8	7	4.2	6	1.8
	Secondary school	8	4.7	10	3.0
	Tertiary and above	11	6.6	6	1.8
<b>Occupation</b>	Government employee	13	7.8	7	2.1
	Daily laborer	6	3.6	8	2.4
	Merchant	14	8.4	17	5.1
	Famer	119	71.3	264	79.3
	House wife	15	8.9	17	5.1

## 5.2 Past Obstetrical History of the Respondents

Concerning the obstetric history of respondents more than half of the cases 101(60.5%) got 1-2 pregnancy while 170(51.1%) of controls got 1-2 pregnancy. From the cases 107(64.1%) had 1-2 live birth while 183(55%) of controls had 1-2 live birth.

**Table 2: Frequency distribution of obstetric history of respondents on PNC utilization in Gonji kolela Woreda 2017**

variable	category	cases		controls	
		number	percent	number	percent
<b>Number of pregnancy</b>	1-2	101	60.5	170	51.1
	3-4	49	29.3	135	40.5
	>=5	17	10.2	28	8.4
<b>Number of live birth</b>	1-2	107	64.1	183	55
	3-4	47	28.1	132	39.6
	>=5	17	7.8	18	5.4
<b>Age during first pregnancy</b>	15-20	90	53.9	194	58.3
	21-25	56	35.5	118	35.4
	26-30	21	12.6	21	6.3

## 5.3 Respondent's knowledge and practices on Postnatal care utilization

With regard to Respondent's knowledge and practices on Postnatal care utilization about 121(72.5%) of cases were getting information on PNC but only 64(19.2%) of controls were getting information on PNC and the information was mostly distributed by health professionals for both cases and controls. Most of the cases 110(65.9%)were counseled to return back for PNC follow up but only 47(14.1%) controls were advised for PNC follow up.

**Table 3: Respondent's knowledge and practices on Postnatal care utilization on PNC utilization in Gonji kolela Woreda 2017**

variable	category	cases		controls	
		number	percent	number	percent
<b>Information on PNC</b>	Yes	121	72.5	64	19.2
	No	46	27.5	269	80.8
<b>Information distribution</b>	Health profession	109	65.3	59	17.7
	Neighbor	12	7.2	6	1.8
<b>Knowledge when to start PNC</b>	Yes	22	13.2	10	3
	No	145	86.8	323	97
<b>Knowledge on danger sign</b>	Yes	6	3.6	30	9
	No	161	96.4	303	91
<b>ANC follow up</b>	Yes	161	96.4	308	92.5
	No	6	3.6	25	7.5
<b>Place of ANC</b>	Health post	7	4.2	10	3.0
	Health center	148	86.6	289	86.8
	Hospital	6	3.6	9	2.7
<b>Place of delivery</b>	Health center	142	85.0	292	87.7
	Hospital	17	10.2	32	9.6
	Home	8	4.8	9	2.7
<b>counseled to return back for PNC</b>	Yes	110	65.9	47	14.1
	no	57	34.1	286	85.9

**Table 4: Attitudes and perception of respondents towards postnatal care utilization in Gonji kolela Woreda 2017s**

variable	category	cases		controls	
		number	percent	number	percent
Respondents attitude on importance of PNC	Agree	151	90.4	309	92.8
	Disagree	8	4.8	13	3.9
	Not sure	8	4.8	11	3.3
Attitude on PNC can minimize maternal and neonatal mortality	Agree	154	92.2	317	95.2
	Disagree	5	3.0	6	1.8
	Not sure	8	4.8	10	3
Can the health institution fulfill to give PNC service	Agree	150	89.8	306	91.9
	Not sure	17	10.2	27	8.1

With regard to Access and health institution readiness towards PNC service about 128(76.6%) of cases had transportation means to reach health institution but 123(36.9%) of controls had transport access. All the cases mentioned that they have received better service in health center while 324(97.3%) of controls mentioned that they have received better service in health center, only 9(2.7%) of control mentioned that they have received better service in hospitals



**Table 5: Access and health institution readiness towards PNC service in Gonji kolela Woreda 2017**

variable	category	cases		controls	
		number	percent	number	percent
Transport means to reach health institution	Yes	128	76.6	123	36.9
	No	39	23.4	210	63.1
Type of health institution giving better service during birth	Health center	158	94.6	324	97.3
	Hospital	9	5.4	9	2.7
Description of the service	Good	161	96.4	328	98.5
	I don't know	6	3.6	5	1.5

Regarding decision making 167(100%) of cases were decide themselves to attend postnatal care and 261(78.4%)of controls were decide themselves but72(21.6%) of controls were influenced by others

**Table 6: Decision making to seeking care and cultural influence towards postnatal care service**

variable	category	cases		controls	
		number	percent	number	percent
Power to decide to have PNC	Yes	167	100	261	78.4
	No	167	100	72	21.6
Number of PNC contacts	1-2	167	100	-	-
Time of PNC contact	On day 3	13	7.8	-	-
	7-14days	101	60.5	-	-
	Six weeks after birth	53	31.7	-	-
Any one hinder you from PNC	Yes	0	0	72	21.6
	No	167	100	261	78.4
Who hinder you from PNC	Husband	-	-	42	12.6
	Mother	-	-	16	4.8
	Neighbor	-	-	14	4.2
Culture hinder you from PNC	Yes	-	-	31	9.3
	No	-	-	302	90.7

#### 5.4 Determinant factors associated with postnatal care utilization

Among the variables considered in bivariable logistic regression; maternal education, employment status of mothers, knowledge on danger sign and symptom, having information on PNC, counseled received to follow PNC, ANC follow up, availability of transportation means, description of the service, having knowledge on when to start PNC, number of pregnancy, number of live birth were candidate variables for multivariable logistic regression. And after entering the above variables to the multivariate logistic regression analysis, having information on PNC, counseled received to follow PNC and availability of transportation means to attend post natal care were the factors associated with post natal care utilization.

**Table 7: Bivariate and multivariate logistic regression analysis for selected explanatory variables on determinant factors of postnatal care utilization 2017**

variable	category	Postnatal utilization		COR(95%CI)	AOR(95%CI)
		yes	no		
Educational level	Not educated	109	268	1	
	Read and write	32	43	1.830(1.100-3.044)	0.8239(0.378-1.791)
	Grade1-8	7	6	2.869(0.943-8.730)	4.413(0.945-20.601)
	Secondary school	8	10	1.967(0.756-5.117)	1.054(0.261-4.251)
	Tertiary and above	11	6	4.508(1.627-12.492)	3.084(0.942-6.741)
Employment status	Government employee	13	7	1	
	Daily laborer	6	8	0.404(0.099-1.640)	1.030(0.488-3.478)
	Merchant	14	17	0.443(0.139-1.414)	1.347(0.321-4.891)
	Farmer	119	264	0.226(0.088-0.580)	0.984(0.121-2.476)
	House wife	15	17	0.475(0.150-1.503)	0.125(0.026-2.398)
Information on PNC	Yes	121	64	11.056(7.153-17.088)	<b>6.713(3.814-11.817)</b>
	No	46	269	1	1
Knowledge when to start PNC	Yes	22	10	4.901(2.263-10.613)	0.765(0.272-2.153)
	No	145	323	1	

Know danger sign during PNC period	Yes	6	30	0.376(0.153-0.923)	0.432(0.126-1.484)
	No	161	303	1	
ANC follow up	Yes	161	308	2.178(0.876-5.417)	1.419(0.389-5.175)
	NO	6	25	1	
Counseled to return back for PNC	Yes	110	47	11.743(7.530-18.314)	<b>6.203(3.500-10993)</b>
	No	57	286	1	1
Transport availability	Yes	128	123	5.604(3.675-8.545)	<b>4.965(2.798-8.810)</b>
	No	39	210	1	1
Service description	Good	161	328	2.445(0.735-8.131)	1.124(0.641-1.943)
	I don't know	6	5	1	
No- of pregnancy	1-2	101	170	1	
	3-4	49	135	0.611(0.406-0.920)	1.062(0.563-2.005)
	>=5	17	28	1.022(0.533-1.959)	1.646(0.614-4.417)
No-of live birth	1-2	107	183	1	
	3-4	47	132	0.609(0.404-0.917)	0.243(0.014-1.072)
	>=5	17	18	1.235(0.582-2.621)	0.841(0.234-2.113)
Type of health institution giving better service during birth	Health center	158	324	1	
	Hospital	9	9	2.051(0.798-5.267)	1.057(0.256-4.873)

Multivariable logistic regression analysis was used by taking all variables having P value less than 0.2. Finally in the multivariate logistic regression model, having information on PNC, advice received to come back for PNC and availability of transportation means to attend post natal care were the factors associated with post natal care utilization.

Mothers having information on PNC were 6.713 times more likely to attend PNC as compared to mothers who have no information on PNC [AOR=6.713,95%CI:(3.814-11.817)]. Mothers who were counseled to return back to health institution were 6.203 times more likely to attend PNC as compared to those who didn't get the advice [AOR=6.203,95%CI:(3.500-10.993)]. Mothers who have transportation means were 4.965 times more likely to attend PNC as compared to those mothers who didn't access[AOR=4.965,95%CI:(2.798-8.810)].

## 6. DISCUSSION

This study tried to identify determinant factors of postnatal care utilization in Gonji kolela Woreda, West Gojjam zone, Amhara Region, North West Ethiopia

The finding of this research showed that counseling to return back for postnatal care was statistically significant to get PNC service. With regard to advice of mothers to return back for postnatal care utilization about 65.9% of cases were counseled but only 14.1% of controls were counseled. This study is in agreement to the study conducted in Abi-Adi, Tigray which showed Mothers advice to return back for postnatal care was the main factors associated with postnatal care utilization(14). This is because, during counseling the mother gets information on benefits of attending PNC that contribute to come back to health institution to get the service.

Having information on PNC is another statistically significant factor for utilization of PNC. By comparison, a high number of mothers in the case group were getting information to attend postnatal care (72.5%), while in the control group only 19.2 % of mothers were getting information to attend postnatal care, Similar result in Dembecha district showed that out of non PNC utilizers lack of information about postnatal care service was mentioned as the major determinant factor for postnatal care utilization(6). The result is also consistent with a study conducted in Amassoma community, Nigeria which showed lack of information on postnatal care utilization was a determinant factor for postnatal care utilization(16).

This finding is also consistent with a result found in Adwa town, which showed that awareness about postnatal care service was more likely to have had postnatal care than women who didn't have awareness on postnatal care service. Similar result was found in a study conducted in Namibia which showed statistical significance between the cases and the control group with regard to information on PNC. Information on postnatal care is important as it can be assumed that women are not utilizing postnatal care as expected because of lack of information about the availability of postnatal care services. Maternal awareness on postnatal care is vital to attain the service utilization.

Availability of transportation means is an other determinant factor for postnatal care utilization this implies that mothers who have transportation means were more likely to attend postnatal care than those who have no transportation means. When we see the Access and health

institution readiness towards PNC service about(76.6%) of cases had transportation means to reach health institution but only (36.9%) of controls had transport access. This might be because of the fact that in the postpartum period mothers are too weak to go to health institution on foot and if they have access for transportation, they can get the service This finding is in line with a study conducted in Namibia which revealed that women did not attend postnatal care because of lack of transport(20)

## 7. LIMITATION OF THE STUDY

With regard to limitation to this study there may be recall bias arising from data was obtained from history of mothers within one year.

## 8. CONCLUSION

This study tries to identify the determinant factors postnatal care utilization in the study area. The study revealed that counseling for mothers to come back for postnatal care, availability of transportation means and having information on postnatal care were determinant factors for postnatal care utilization.

## 9. RECOMMENDATION

- Since a large proportion of maternal and neonatal deaths occur during the first 48 hours after delivery, health institutions should strength to give at least the first postnatal contact, this creates a good opportunity for mothers who have no transportation means.
- Health professionals during the post partum period should strength to give intensive counseling for mothers to come back for postnatal service. Health care providers at community level should give information about postnatal care utilization as well as the importance of postnatal care utilization for the mother and neonate.
- In areas where transportation is not availed, the community should use other means like traditional ambulance

## 10. References

1. Warren C, Daly P, Toure L, Mongi P. Postnatal care. Opportunities for Africa's Newborns
2. WHO recommendations on Postnatal care of the mother and newborn. 2013.
3. Ethiopian Demographic and Health Survey 2016.
4. Muiruri, Nelie. Factors affecting utilization of PNC services Nyer I Kenya. 2011.
5. Dhakal S, Chapman GN, Simkhada PP, van ER, Teijlingen, Stephens J, et al. Utilisation of postnatal care among rural women in Nepal. BMC Pregnancy and Childbirth. 2007;7:19.
6. Hordofa MA, Almaw SS, Berhanu MG, Lemiso HB. Postnatal Care Service Utilization and Associated Factors Among Women in Dembecha District, Northwest Ethiopia. Science Journal of Public Health. 2015;3(5).
7. Belachew T, Taye A, Belachew T. Postnatal Care Service Utilization and Associated Factors among Mothers in Lemo Woreda, Ethiopia. Journal of Womens Health Care. 2016;5(3).
8. Berhanu S, Sr. Yeshe Asefa (RN B, MSc), Berhanu Wordofa Giru (BSc M. Prevalence of Postnatal Care Utilization and Associated Factors among Women Who Gave Birth and Attending Immunization Clinic in Selected Government Health Centers in Addis Ababa, Ethiopia, 2016. Journal of Health, Medicine and Nursing 2016;Vol.26.
9. Berhe H, Tilahun W, Aregay A, Bruh G, Gebremedhin H. UTILIZATION AND ASSOCIATED FACTORS OF POSTNATAL CARE IN ADWA TOWN, TIGRAY, ETHIOPIA. Advanced in research pharmaceuticals and biologicals. 2013;3(1).
10. Alemayeh H, Assefa H, Adama Y. Prevalence and Factors Associated with Post Natal Care Utilization IJPBSF International Journal of Pharmaceutical and Biological Sciences Fundamentals. November 2014;08(01).
11. Tesfahun F, Worku W, Mazengiya F, Kifle M. Knowledge, Perception and Utilization of Postnatal Care of Mothers in Gondar Zuria District, Ethiopia. Matern Child Health J. 26 April 2014;18:2341–51.
12. Andualem Limenih M, Mulaw Endale Z, Dachew BA. Postnatal Care Service Utilization and Associated Factors among Women Who Gave Birth in the Last 12 Months prior to the Study in Debre Markos Town, Northwestern Ethiopia. Hindawi Publishing Corporation International Journal of Reproductive Medicine. 2016;2016:7.



13. Workineh YG, Hailu DA. Factors affecting utilization of postnatal care service in Jabitena district, Amhara region, Ethiopia. *Science Journal of Public Health*. 2014;2(3).
14. Alemayeh H, Assefa H, Adama Y. Prevalence and Factors Associated with Post Natal Care Utilization in Abi-Adi Town, Tigray, Ethiopia. *IJPBSF International Journal of Pharmaceutical and Biological Sciences Fundamentals*. 2014; 08.
15. Khanal V, Adhikari M, Karkee R, Gavidi T. Factors associated with the utilisation of postnatal care services among the mothers of Nepal: analysis of Nepal Demographic and Health Survey 2011. *BMC Women's Health*. 2014.
16. Olayinka OA, Achi OT, Amos AO, Chiedu aEM. Awareness and barriers to utilization of maternal health care services among reproductive women in Amassoma community, Bayelsa State. *International Journal of Nursing and Midwifery*. 2014;6( 1):10-5.
17. Akunga D, Menya D, Kabue aM. Determinants of Postnatal Care Use in Kenya. *African Population Studies*. 2014;28.
18. Rwabufigiri BN, Mukamurigo J, Thomson DR, Hedt-Gautier BL, Semasaka JPS. Factors associated with postnatal care utilisation in Rwanda: A secondary analysis of 2010 Demographic and Health Survey data. *BMC Pregnancy and Childbirth*. 2016;16 (1).
19. Izudi J, Amongin D. Use of early postnatal care among postpartum women in Eastern Uganda. *International Journal of Gynecology and Obstetrics*. 2015;129.
20. TNandjila MR. Utilisation of postnatal services. 2008.
21. Pomerai KW. Determinants of Post Natal Care Uptake. 2011.

Annex A - information sheet

**Title of the Research Project:** Determinants of postnatal utilization in Gongi kolela Woreda, West Gojjam Zone, Amhara Region, North West Ethiopia, 2017.

**Name of Investigator:** Anteneh Workie

**Name of advisors:** Dabere Nigatu (MPH/RH Assistant professor)  
Zelalem Mehari (M.Sc)

**Name of the Organization:** Bahir Dar university, College of Medicine and Health Sciences

**Introduction:** this information sheet is prepared for Gongi kolela Woreda health office administration and maternal health officer. The aim of the form is to make the above concerned office clear about the purpose of research, data collection procedures and get permission to conduct the research.

**Purpose of the Research Project:** To identify determinant factors of postnatal care utilization in Gongi kolela Woreda, West Gjjam Zone, Amhara Region, North West Ethiopia.

**Procedure:** In order to achieve the above objective, information which is necessary for the study will be obtained through study subjects interview.

**Risk and /or Discomfort:** by participating in this research project you will not feel any discomfort except wasting some time. Every information will be kept confidentially. There is no risk in participating in this research.

**Benefits:** there will not be monetary benefits or any provided incentives to you for participating in this research project but the indirect benefit of the research for the participant and other clients in the program is clear. This is because if program planners are preparing predicted plan there is a benefit for clients in the program of getting appropriate utilization for postnatal service. Of all, the research work has a paramount direct benefit for health care planners and managers, especially for those on maternal and child officer program planning and management.

**Right to refusal or withdraw:** your participation in this research study is voluntary. You may choose not to participate and you may withdraw your consent to participate at any time without losing any of your right.

**Person to contact:** This research project will be reviewed and approved by the institutional review board of College of Medicine and Health Science, Bahir Dar University. If you want to know more information, you can contact the committee through the address below. If you have

any question you can contact any of the following individuals (Investigator and Advisors) and you may ask at any time you want.

1. Anteneh Workie: principal investigator

Cell phone: 0912920431

E-mail: anteworkie12@gmail.com.

2. Dabere Nigatu (MPH/RH Assistant professor) , Bahir Dar University College of Medicine and Health Science, institute of Public Health: Advisor

Cell phone: 0913453579

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3. Zelalem Mehari (M.Sc) Bahir Dar University College of Medicine and Health sciences:  
Advisor

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**Annex B: consent form**

A questionnaire prepared to identify determinants of post natal care utilization among mothers who lived in Gongi kolela Woreda, West Gojjam Zone, and North West Ethiopia.

Greeting

I am.....Recruited as a data collector for the research that will be conducted by Bahir Dar university student Anteneh Workie among mothers of in Gongi kolela Woreda. As you are randomly selected, I kindly request you to participate in this study.

Your name will not included in the information. I promise to keep the confidentiality of your response.

I have been briefly informed about the study and I clearly understood the objective. Consequently, I approve my consent to take part in the study as an interviewee with my signature.

Signature.....

Date.....

Name of kebele.....

Name of data collector.....Signature.....

Code no.....

Date.....

Start time.....

**Annex c: Questionnaire.**

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

**PART ONE: SOCIO-DEMOGRAPHIC AND ECONOMIC VARIABLES.**

No	Questions	Response	Remark
101	How old are you?	Age in years----- --	
102	What is your Ethnicity?	1.Amhara 2.Tigray 3.Oromo 4.others(specify)	
103	What is your religion?	1.orthodox 2.muslims 3.protestant 4.others(specify)	
104	What is your marital status?	1.single 2.married 3.divorced 4.widowed 5.others(specify)	
105	What is your educational level	1.not attend school 2.read and write 3.grade1-8 4. attend secondary school 5. attend tertiary and above	

106	What is your occupation?	1.government employee 2.daily laborer 3.merchant 4.farmer 5.house wife 6.student 7.others(specify)	
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**PART TWO: Past obstetrics history**

No	Question	Response	Remark
201	How many pregnancies you encountered throughout your life time?		
202	Among these, How many of them were live births?	.....	
203	What is your age during the first pregnancy?	.....years	

**Part Three: Respondent's knowledge and practices on Postnatal care utilization**

No	Questions	Response	Remark
301	Have you heard any information about PNC?	1.no 2.yes	
302	If yes Q301 who gave the information	1.health professional 2.neighbour 3.family member 4.others	
303	Do you have knowledge on the period to start PNC?	1.yes 2.no	
305	Do you know the danger sign during postnatal period?	1.yes 2.no	
307	Have you attended ANC for last pregnancy?	1.yes 2.no	
308	If yes to Q307 where did you attend ANC?	1.Health center 2.Hospital 3.health post	
309	Where did you give birth?	1.Health center 2.Hospital 3.health post 4.home	
310	If deliver at home	1.health extension	

	who assisted you?	2.traditional birth attendant 3.other	
311	If delivered at health institution have you got advice to return back for PNC check up?	1.no 2.yes	

**Part four: Questions to assess respondents' attitude towards postnatal care.**

NO	Questions	Response	Remark
401	Do you think PNC important for you?	1.agree 2.disagree 3. not sure	
402	Do you think PNC minimize the maternal and neonatal mortality?	1.agree 2.disagree 3. not sure	
403	Do you think health institution can full fill to give PNC service?	1.agree 2.disagree 3. not sure	



**Part five: Access of transport and health institution preparedness towards postnatal care service**

No	Question	Response	Remark
501	Do you have any transportation means to reach to health facility during birth?	1.no 2.yes	
502	Which health institution gives better service during birth?	1.Health center 2.Hospital 3.Health post	
503	How do you describe the service?	1.good 2.bad 3.Idon't know	

**Part six: Respondents decision making ability and practice towards postnatal care service**

No	Questions	Response	Remark
601	Have you power to decision to seeking PNC service?	1.no 2.yes	
602	Is there any one hindered you from PNC?	1.no 2.yes	
603	If yes to Q602 who hindered to seeking PNC?	1.Husband 2.Mother[both side] 3.Neighbor 4.Other	
604	Is there any culture hindered you from PNC?	1.no 2.yes	
606	Have you attended PNC for this birth?	1.no 2.yes	
607	If yes to Q606 How many PNC contacts have you made?	1.1-2 2.2-3	
608	What is the timing of each postnatal contacts after birth?	1.Within 24 hrs 2.On day3 3.Between7-14 days 4.Six weeks after birth	

**የአማርኛ መጠይቆች**

**ክፍል አንድ፤ መሰረታዊ መረጃዎችን የሚዳሰሱ ጥያቄዎች**

**ትዕዛዝ ምርጫ ላይ ያዩት ጥያቄዎች ከተቀመጡት ምርጫዎች መካከል የመረጡትን መልስ ያክብሩ፡**

**ምርጫ ሌላ ተጨማሪ ጥያቄዎች መልስ ያስጡን በክፍት ቦታ ላይ ይጻፉ፡፡**

ቁጥር	ጥያቄዎች	ምላሽ	ግምገማ
101	ዕድሜዎ ስንት ዓመት ነው?	..... ዓመት	
102	ብሄር ስምዎን ድንገት ያውጡ?	1. አማራ 2. ትግራይ 3. ኦሮሚያ 4. ሌላ ካለ (ይገለጹ)	
103	ሐይማኖትዎን ድንገት ያውጡ?	1. ኦርቶዶክስ 2. መስሊም 3. ፕሮቴስታንት 4. ሌላ ካለ (ይገለጹ)	
104	የጋብቻ ሁኔታዎችን ድንገት ያውጡ?	1. ያላገባች 2. ያገባች 3. የተፋታች 4. በሞት ምክንያት የትዳር አጋራን ያጣች 5. ሌላ ካለ (ይገለጹ)	
105	የእርስዎ የትምህርት ደረጃዎን ድንገት ያውጡ?	1. ያልተማሩ 2. መግቢያ ማንበብ የሚችሉ 3. የመጀመሪያ ደረጃ ትምህርት (1-8) 4. ሁለተኛ ደረጃ ትምህርት (9-12) 5. ኮሌጅ እና ከዚያ በላይ	
106	የስራ ሁኔታዎችን ድንገት ያውጡ?	1. መንግስት ስራተኛ 2. የቀን ስራተኛ 3. ነጋዴ 4. ገበሬ 5. የቤት እመቤት 6. ተማሪ 7. ሌላ ካለ (ይገለጹ)	

**ክፍል 2 ከእርግዝና ጋር በተያያዘ የባለፈው የህይወት ታሪክ**

ቁጥር	ጥያቄዎች	ምላሽ	ግምገማ
201	በሂወትዎ ስንት ጊዜ ከፍሰጠር ሁኔታዎ ውቃት?	.....	
202	ከተወለዱት ወሰን ጥምን ያህሉ በህይወት አሉ?	.....	
203	የመጀመሪያ የእርግዝና ዕድሜ ስንት ነበር?	.....	

**ክፍል 3 ስለ ድህረ ወሊድ አገልግሎት አወቀትና ልምድን በተመለከተ**

ቁጥር	ጥያቄዎች	ምላሽ	ግምገማ
301	ስለ ድህረ ወሊድ አገልግሎት ስምተው ውቃት?	1.አዎ 2.የለም	
302	መልስ ምልክት ከሆነ የሰመት በማን አማካኝነት ነው?	.....	
303	ስለ ድህረ ወሊድ አገልግሎት መቻሉን ደግጎ ማረጋገጥ ሊነግሩኝ ይችላሉ?	.....	
304	በድህረ ወሊድ ጊዜ ስለ ማከሰቱ ድንገተኛ ምልክቶች ውቃት?	1.አዎ 2.የለም	
305	ቅድመ ወሊድ ክትትል አድርገሽታው ይቀያየራል?	1.አዎ 2.የለም	
306	መልስ ምልክት ከሆነ የትክክር ክትትል ደረጃ ነው?	.....	
307	የትክክር ወለዱት?		
308	መልስ ምልክት ከሆነ በማን አማካኝነት ነው ወለዱት?	.....	
309	በጤና ተቃዋሚ ወለዱ ስለ ድህረ ወሊድ አገልግሎት መልስ ምልክት ደግጎ መከራ ማረጋገጥ ለማለት?	.....	

**ክፍል 4 ስለ ድህረ ወሊድ አገልግሎት መለካከትና ስሜትን በተመለከተ**

ቁጥር	ጥያቄዎች	ምላሽ	ግምገማ
401	ድህረ ወሊድ አገልግሎት ይጠቅማል ብለሽታስ ቢለሽ ወይ?	1.አስማማለሁ 2.አልሰማም 3 እርግጠኛ አድለሁም	
402	ድህረ ወሊድ አገልግሎት የእናቶችንና ህፃናት ሞት ይቀንሳል ብለው ይናገሩ?	1.አስማማለሁ 2.አልሰማም 3 እርግጠኛ አድለሁም	
403	በጤና ተቃዋሚ ድህረ ወሊድ አገልግሎት ማድረግ የተማላነውን ብለው ይናገሩ?	1.አስማማለሁ 2.አልሰማም 3 እርግጠኛ አድለሁም	

**ክፍል 5 ስለ ድህረ ወሊድ አገልግሎት ለማግኘት የትራንስፖርትና ሌሎች ቅድመዘግጅትን በተመለከተ**

ቁጥር	ጥያቄዎች	ምላሽ	ግምገማ
501	በወሊድ ጊዜ ወደ ጤና ተቃዋሚ ማደረሱት በምን ድካሙ?	1. በእግር 2. በህዝብ ትራንስፖርት 3. በአምቡላንስ	
502	በስወአስተሳሰብ ጥሩ አገልግሎት ያገኙት የትተቃዋሚ ውጭ?	1. ጤና ኬላ 2. ጤና ጣቢያ 3. ሆስፒታል	
503	አገልግሎትን እንዴት ወደ ማገገሚያ ልዩዎች?	1. ጥሩ 2. መጥፎ	

**ክፍል 6 ስለ ድህረ ወሊድ አገልግሎት ለማግኘት የሚደረግው ሳኔ**

ቁጥር	ጥያቄዎች	ምላሽ	ግምገማ
601	ድህረ ወሊድ አገልግሎት ለማግኘት በራስሽት ወስኛለሽ?	1. የለም 2. አዎ	
602	መልሱ የለም ከሆነ ድህረ ወሊድ አገልግሎት በራስሽት እዳታ ማያደርጉሽ ነገሮች አሉዎት?	1. የለም 2. አዎ	
603	መልሱ አዎ ከሆነ ድህረ ወሊድ አገልግሎት በራስሽት እዳታ ማያደርጉሽ ልትገኙት ማለት ማለት ሆኖ ለሽ?	.....	
604	ድህረ ወሊድ አገልግሎት ላለማግኘት ባህላችሁ ተጠቅሞ አለዎት?	1. የለም 2. አዎ	
606	ድህረ ወሊድ ክትትል አድርገው ወያውቃል	1. የለም 2. አዎ	
607	መልሱ አዎ ከሆነ ስንት ጊዜ ክትትል አደረግሽ		
608	በወሊድሽ በስንት ቀን ክትትል አደረግሽ		