ADDIS ABABA UNIVERSITY
COLLEGE OF HEALTH SCIENCES
SCHOOL OF ALLIED HEALTH SCIENCES
DEPARTMENT OF NURSING AND MIDWIFERY

PREVALENCE AND ASSOCIATED FACTORS OF POSTNATAL CARE WITHIN ONE WEEK UTILIZATION AMONG WOMEN WHO HAD GIVEN BIRTH IN THE LAST SIX WEEKS IN AMEYA DISTRICT, OROMIA REGIONAL STATE, ETHIOPIA, 2016.

BY TESHOME MELESE (BSC)

A THESIS SUBMITTED TO ADDIS ABABA UNIVERSITY, SCHOOL OF ALLIED HEALTH SCIENCES, DEPARTMENT OF NURSING AND MIDWIFERY FOR PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR DEGREE OF MASTERS IN MATERNITY AND REPRODUCTIVE HEALTH NURSING.

MAY, 2016

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THIS THESIS BY TESHOME MELESE (BSC) IS ACCEPTED IN ITS PRESENT FORM BY BOARD OF EXAMINERS AS SATISFYING THESIS REQUIREMENT FOR THE DEGREE OF MASTERS IN MATERNITY AND REPRODUCTIVE HEALTH NURSING.

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Declaration

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

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Abstract

Introduction: Majority of maternal and neonatal deaths occurred during pregnancy, childbirth and postpartum. In the neonatal period (the first 28 days of life), most deaths occur during the first 7 days. In Ethiopia level of any postnatal care utilization was very low. Ethiopia Mini demographic and health survey reported 87 % of women didn't receive postnatal care within two days, as recommended by world health organization (WHO).

Objective: The objective of this study was to assess prevalence and associated factors of postnatal care within one week utilization among women who had given birth in the last six in Ameya district, Oromia regional state, Ethiopia, 2016.

Method: An institution quantitative based cross sectional study design employed from February 15 –March 15, 2016 G.C in Ameya district. 332 study participants were selected by taking as a cluster those proportionally allocated to respected health centers. The data were analyzed using SPSS version 23.0. Bivariate and multivariate logistic regression was used to identify the associated factors with the outcome variable. Graphs, tables and sentences were used for descriptive statistics.

Result: The finding revealed that postnatal care within one week utilization in the study area is 25.3%. Partner occupation, complication during labor & delivery distance between her home & health center, advised on maternal postpartum complications, advised on neonatal complications and awareness of PNC within one week services were the main contributing factors of PNC within one week utilization.

Conclusion and recommendation: PNC within one week utilization is low. Partner occupation, complication during labor & delivery, distance between her home & health center, advised on maternal postpartum complications, advised on neonatal complications and awareness of PNC within one week services were the main factors affect PNC within one week. Based on the finding the researcher would like to recommend, all ministry of health (MOH), stake holders, health professionals and health extension workers (HEWs) to create awareness and providing quality PNC services timely.

Key words: Within one week, postnatal care utilization, mothers, Ameya

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List of acronyms and abbreviations

AAU: Addis Ababa University

ANC: Antenatal Care

C/S: Cesarean Section

EDHS: Ethiopia Demographic and Health Survey

EPI: Expanded Program of Immunization

HEWs: Health Extension Workers

HO: Health Officer

Km: Kilometer

MCH: Maternal and Child Health

MMR: Maternal Mortality Rate

MOH: Ministry of health

P/E: Physical Examination

PNC: Postnatal Care

PPC: Postpartum Care

SNL: Saving Newborn's Life

SVD: Spontaneous Vaginal Delivery

WHO: World Health Organization

CHAPTER ONE

Introduction

1.1. Back ground

Postnatal care within week is the care given for the mother and newborn starting after delivery to six weeks. Globally each year 289000 maternal and 2.9 million neonatal death was recorded. The deaths were related to complications during pregnancy, child birth & postpartum period. Of which about 67% of maternal death were occurred after delivery within few hours and days. Around 99% of death happened in the low and middle income countries. However, the period was neglected to save the life. Postpartum is the period of physiological change occurred which determine the future life of both mother and newborn (1, 2, 3). In the neonatal period (the first 28 days of life), most deaths occur during the first 7 days. Mortality is very high in the first 24 hours after birth (25–45%) (4). If quality PNC within one week provide for postpartum mother, it can minimize mortality and morbidity of mothers.

According to WHO recommendation the mother must have immediate postnatal care within the first 24 hours, 2-3 days, 6-7 days and 6 weeks of delivery (1). Post natal services are provision of immunizations for mothers, timely family planning, health education and counseling on danger signs, childcare, nutrition, personal hygiene, and physical examination and treatment (5). In sub-Saharan countries less than 50% of mothers used postnatal care within one week. In the region there was no availability of the services and limited skill of health care providers when and why the care was provided to enable the mothers to use this utilization (6).

In Ethiopia the level of any postnatal care utilization was very low. Ethiopia mini Demographic Health Survey (EDHS) reported 17 % of women received postnatal care within two days, as recommended. From those women who used postnatal checkup, 8 % were checked within 4 hours of delivery, 3 % within 423 hours, 2 % within 1-2 days, and 5% within 3-41 days of delivery (7). Postnatal care is one of indictor of maternal health service. Regarding to PNC service utilization countries taken different strategies. One of the strategies was developing universal coverage. Ethiopia government accept this strategies to improve PNC utilization services. Many health extension workers were deployed in the past few years and linking health centers with health posts.

1.2. Statement of Problem

Postnatal care is the period of both the infants and mothers are exposed for medical complications and an ideal time to provide intervention for them to survive. Every year four million infants died in the first one month of delivery. About 75% of them died within the first weeks. From death that occurred in the first week of delivery again two-third of them died within the first 24hours (8). Similarly, around 67% of all maternal deaths occur in the postnatal period. Almost all of deaths occurred in developing countries. The death happened at the home regardless of delivery was at home or health institution, and attended by skilled attendants or not (3).

Every year, about 529,000 maternal deaths occurred worldwide. It implies MMR 400 per 100,000 live births. Out of this magnitude Sub-Saharan countries accounted 1,000 per 100,000 live births, South Asia countries 500 per 100,000 live births, Latin America and Caribbean countries 250 per 100,000 live births and Western countries 20 per 100,000 live births (9**).** In Ghana study conducted in 2015 about 52.4% of mothers sought utilization of postnatal care after a week of delivery (10). In Ethiopia MMR are 676 per 100000 live births. Almost all deaths occurred during labor delivery and immediate postpartum period within a few days (6). In Abi-Adi, Tigrai, Ethiopia utilization of any postnatal care was 11.9%. About 82% of mothers didn't think as postnatal care is benefits both for them and their children (11).

In 2007 save the children reported that Sub-Saharan countries 67% of mothers gave birth at home and about 87% didn't get any postnatal care (12). About 56% of mothers whether delivered at home or at health institution, didn't want to have postnatal care. Mothers were not seeking post natal care service provision when they gave birth at home and if their educational status is less than high school (13). Mothers who maternity services before and during delivery seek more post natal care (3).

Lack of awareness, Marital status, using continuum maternity care like ANC follow up and delivery at heath facilities, place of residence (distance), culture, number of children were major factors affecting utilization of post natal care services. About 52.19% mothers got any postnatal care services through health extension workers and community health agents. Most of the time after delivered, mothers come to health institution if they faced some problems and they want motivation to be served (14).

Ethiopia has accepted universal health coverage as strategies to decrease maternal and child mortality. This is by engaging to capacitate health care providers, accessible health facilities,

increasing number of health extension workers (HEWs) and mobilizing the community. But still unacceptable death and disabilities continue. Although utilization of postnatal care within a week after delivery plays a crucial role to success of the universal health coverage by having healthy mother and new born, it was neglected across the country (15).

So that, enhancing the service of ANC, delivery at health facilities, developing the strategies how can provide postnatal care at their home and upgrading mothers' knowledge and accessibilities of services by developing community-based packages for the mothers those live in rural, poor, and less educated mothers possibly increase utilization of post natal care services (3).

Although one week postnatal utilization is important for both the mothers and newborns, it was neglected through the country, Ethiopia. Particular in Ameya district, one week postnatal care utilization is under expectation. Even if mothers gave birth in the health institutions and were attended by health care providers return back to health institution for consequence postnatal visits were under estimation.

1.3. Significance of the study

Many studies have been showed that the coverage of any postnatal care follow up is too low and what factors affect the postnatal care follow up are not well identified. But there were no evidences particularly on postnatal care within one week in Ethiopia. Despites the fact that, it has very significant impact on maternal and new born morbidity and mortality; postnatal care within one week is yet marginalized neglected and little attention and efforts has been paid by health care practitioners and policy makers to this simple preventable and avoidable problem. There is policy and strategy based on post natal care within one week follow up but not applied properly and there is a little information and less actual practice in postnatal care within one week follow up at the ground level in the community. Therefore it is the right time to conduct this study on assessment of factors associated with recommended postnatal care within one week utilization and the study may going to be base line for other researchers to do on it in order to contribute an input for better planning, implementation of postnatal care and to provide other opportunities, attention and efforts by all concerned sectors to reduce maternal mortality and to achieve the program of universal health coverage for the country specifically on maternal health.

CHAPTER TWO

Literature review

Postnatal care utilization within one week after delivery is a critical period for both mothers and newborns. Even if no study conducted on specific within one week in Ethiopia, the prevalence postnatal care within one week was very low. All mothers who had given birth must get postnatal as per standard schedule. Study reported indicated that regardless of place of delivery, mothers and newborns must get postnatal care as schedule starting from immediate PNC to six week of delivery. The care may be in the health institutions or at home according to approach of the particular country (1).

Post natal care must be integrated with existing programs and promoted and supported by policies to minimize maternal and newborn mortality. To achieve this every stake holders have to have commitment to integrating postnatal care to existed and new programs as well as tracking and monitoring it (3). However, in most countries, especially in developing countries including Ethiopia postnatal care utilization is under expectation. Most of the research revealed that PNC visits were unscheduled. No study conducted on PNC follow up according to recommendation.

2.1. Prevalence of postnatal care utilization

Survey conducted by Save the Children under SNL in 2007 on six different countries such as Bolivia, Malawi, Mali, Bangladesh, Nepal and Pakistan shows very low PNC within three days utilization after delivery (14%, 3%, 4%, 2%, 3%, and 7% respectively) before applying of community-based intervention and training health care providers. After one and half years of intervention there were dramatically change in receiving postnatal care except Malawi. That means, from 14 to 30%, 3 to 4%, 4 to 26%, 2 to 32%, 3 to 17% and 7 to 22% respectively (3). In 2013 large scale secondary data used cross-sectional surveys of women with live births in Bangladesh, Malawi and Nepal reported that mothers and newborns received postnatal care at home within seven days were 57% in Bangladesh, 50% Nepal and 11% in Malawi (17). A community based cross –sectional study under gone in India, M. Pradesh, showed about 71.9% of mothers gave delivery received postnatal care within 10days after deliver. Of those women, most of them, 36.6%, received only one postnatal care. Although the period was critical for both mothers and newborns only 4.3% of the mothers received postnatal care within 2 -7 days after delivery (18).

Systematic review in 2014 conducted in different countries reveal that postnatal care utilization in low-income and middle income countries were 53% and 61% respectively (19).

In 2014 mixed method study undergone in China revealed that the percentage of mothers received timely postnatal care within one week and over six weeks were only 8% and 24% respectively (20). Study done in Hawaii in 2011 indicated that the prevalence of postpartum visits and one week infant visits were about 90% (21).

Secondary data reviewed from National Family Health Survey III undergone in 2011 in Uttarakhand revealed that only 37% of mothers received any postnatal care services within six weeks of delivery (22).

Study conducted in India on utilization of maternal health among adolescents reveal that 65.1% received a postnatal care within 42 days after delivery (23). Also secondary data used from District Level Household Survey (DLHS-3) conducted in India in 2007–08 in 601 districts from 34 states and union territories showed about 44% of mothers received any PNC check-up within 48 hours and only 45% of the neonates were checked within 24 hours after delivery. Generally, 62% of newborns were received two or more postnatal care check-ups within the first 10 days of giving birth (24).

In 2013 multi stage sampling technical study conducted in Cambodia showed the prevalence of mothers received postnatal care within 24 hours and within 2 hours were 61% and 38% respectively (13).

In 2014 research conducted in Nepal women those sought postnatal utilization from health care providers were very low (19.3%). Total or any postnatal utilization was very poor. It was about 25.1%. Study showed only 13.5% of mothers were received postnatal care within 24hours after delivery (25). In 2011 at the same country a cross sectional two stage cluster sampling and Nepal demographic health survey analyzed change in the utilization and reported that mothers attended postnatal care at list one and immediate postnatal care after they gave birth within 24hours were 43.2% and 40.9% of respectively. Although there was increment in postnatal care utilization from 26.5% to 43.2% between years 2006 to 2011, still it remains low in the country (26). A systems thinking approach study conducted in sub-Saharan African countries by the year 2015; in Burkina Faso, Kenya, Malawi and Mozambique revealed that postnatal care within one week were very weak although most of the mothers were received the care at six weeks of delivery. Prevalence of one week PNC utilization in those countries was; 25%, 33%, 41% and 40% respectively (6).

In Nigeria population based cross sectional research undertaken in 2014 which used secondary data from NDHS indicated that only 4% of mothers used general postnatal care (27).

In 2011 a cross-sectional descriptive quantitative design study in Malawi revealed that 49% of women visited postnatal care. From mothers who had ANC follow up currently 80.3% mothers attended the postnatal check-up at one week and 60.5% of them attended the six week postnatal check-up (28).A transversal study carried out in Congo in 2012 showed that only 34.6% of mothers received any postnatal care (29).

In 2009 the result of in depth interview undergone in Tanzania showed that despite the mothers perceived postnatal care have benefits for children, there was a total lack of postnatal care for the mothers. Although the mothers responded as they took their baby to PNC they had not yet took them before 2 or 3 weeks of age (30). Also cross sectional survey conducted in 2015 here showed that majority of mothers (94.8%) were aware of the presence of PNC services. Even if majority of mothers were aware of PNC services only 71.6% received it. Also those received the services were not timely and they considered as PNC is the service that provided to the new born as immunization and monitoring, less for maternal (31).

A cross sectional study conducted by 2014 in Northern Ethiopia, Gonder area revealed that about 66.83% of mothers gave birth seek postnatal care utilization within six weeks. Large numbers of mothers were informed the existence of PNC at health facilities from community health workers and HEWs. But few of them knew when it was offered and by whom it offered for them (14). This result was far from the result reported by 2013 from a linked facility and population survey by using multilevel analysis in the same zone, Gonder. It revealed that only about 6.3% of mothers utilized PNC (15).

In the year 2014 across-sectional study undertaken in Abi Adi, Tigrai, Ethiopia, showed only 11.9% mothers received PNC (32). Research conducted in Adwa, Tigrai, Ethiopia, revealed that about 78.3% of mothers gave birth were received postnatal care (5). Also in 2011 a population based cross sectional study undergone in Southern Ethiopia, Sidama zone, Ethiopia, revealed that only 37.2% of women took postnatal care (33).

Community based cross – sectional study conducted in Northern and South central Ethiopia in 2014 showed the prevalence utilization of postnatal care within six weeks was high, about 88%. But few of them received PNC within 24 hours and three days of delivery, 3.7% and 10.2% respectively (34).

Community-based cross-sectional study conducted in Dembecha, Northwest Ethiopia, by 2015 revealed that the prevalence of utilization of postnatal care service was 34.8% of which 33.7%were within 48 hours of postnatal period and about 0.8% within 2-7 days of delivery. Even if there were large numbers of mothers had ANC follow up still PNC utilization was very poor (35).

A community based cross sectional study conducted in Jebitena, Northern Ethiopia, in 2014 showed that about 20.2% of the women utilized postnatal care. Of them 60% received postnatal care within 24hours (36).

2.2. Factors affecting postnatal care utilization.

2.2.1. Socio-demographic factors postnatal care utilization

Age

There are many factors through the world that affect utilization of postnatal care. From those factors one is maternal age. The younger mothers gave birth were more likely used postnatal care (13, 26) but other study reported that they were less likely used postnatal care (37). On the other hand there was no association between maternal age and utilization of postnatal care (17, 20, 25).

Marital status

Marital status of the women were affect utilization of postnatal care. Mothers who married and have husband were more likely received postnatal care (14, 32) whereas some study result showed that there was no relation between utilization of postnatal care and marital status of the women (31).

Educational status

Maternal educational status had significant association with postnatal care utilization. Mothers who educated secondary or higher were more likely utilize postnatal care (11, 22, 26, 31) but study conducted in Pakistan shows women who educated were less likely utilized postnatal care (38). However, according report from study under gone in different countries (Bangladesh, Malawi and Nepal) maternal education had no association with postnatal care utilization (17).

Occupation

Maternal occupation was significantly associated with postnatal care utilization and on in study conducted in Sub-Saharan countries (5, 18, 27). Mothers who were professional and have manual occupations were more likely utilized (26). On the other hand mothers those who were house wives more likely receive postnatal care within 10 days than in service (18). But other study conducted in low and middle income countries revealed that there was no relation between employment of

the mothers and utilization of postnatal care (19) and no association between maternal occupation and one week postnatal care utilization (20).

Economic status

Socioeconomic status of the mothers was one factor that hindered the mother to use PNC. Mothers from low economic income were less likely used postnatal care (2, 21, 23, 30). Study conducted in Gonder area, Ethiopia, showed that mothers from mixed economic income (farming and trading) were highly utilized PNC than those from farming only (15).

Place of residence

Place of residence was one of contributing factors to received PNC. Some researchers reported that mothers from urban area were more likely utilized (14, 19, 26) but study undergone in Pakistan reported that mothers from rural area were more likely utilized postnatal care (38).

Cultural

Culture was another associated factors of postnatal care utilization. In Nepal, culture was significantly associated with postnatal care utilization. Because of culture, touching mothers and newborns within 12 days after delivery was forbidden (25). On other hand research conducted in different countries revealed that cultural beliefs and practices further inhibit utilization of within one week postnatal care (5, 6, 11, 14).

Health care seeking decision making

Some researchers written as independent decision making of the mothers on health seeking was relation with postnatal care utilization. Mothers who had empowered and autonomous for decision making on health care were more likely received postnatal care services than those dependent on others for health care seeking (11, 14, 33).

Ethnicity

Ethnicity is other factors. Mothers from black or mixed ethnicity were less likely utilized PNC In other hand mothers from were black color, Hispanic, Samoan, or other Pacific Islander more likely received postnatal care (21). But other study shows there was no association between maternal ethnicity and postnatal care (31).

Exposure to Mass media

Different study revealed that exposure to mass media had significant association with post natal care utilization. Women who had experienced reading newspapers or watched TV more likely received postnatal care (13, 22, 32, 33).

2.2.2. Reproductive factors affecting postnatal care utilization

Antenatal care utilization

History of antenatal care (ANC) utilization had high association with PNC utilization. Research indicated mothers those attended early and four or more visits more likely received postnatal care (15, 22, 26-27, 31-32). But still, of those used ANC attendants, only 41.3% had got postnatal care service (35). Home visit during pregnancy, completed ANC visits and birth notification by community health worker increased utilization of early postnatal care (23, 17).

Parity and gravidity

Parity and gravidity of the mothers were other factor which was contributed to utilization of PNC. Mothers those who had gave birth more but <4 children were more likely visited postnatal care (21, 32, 37). But those currently married and never gave birth before and multigravida mothers more than 7 children were less likely utilized PNC (22, 27, 34), On the other hand, there was no association between postnatal utilization and parity (14, 29).

Pregnancy and delivery related complications

A cross-sectional study conducted on high incidence of neonatal danger signs and its implications for postnatal care in Ghana showed babies born with danger signs were more likely followed postnatal care checkup within six weeks. But there were no significant difference between babies born with danger signs and received postnatal care within two days and two weeks (10) and mothers who developed maternal complication during child birth and normal birth (2). Women those had a low birth weight infant or an early preterm were less likely utilized postpartum care (PPC) and one week infant visits (21).

On other hand, women with preconception anemia and who consumed iron during pregnancy, mothers who have experienced obstetrics danger signs during pregnancy and delivery perceived that having early postnatal visits were mandatory (21,25, 28, 37).

Mode of delivery

Mode of delivery affected utilization of PNC within 10 days of delivery. Newborns that had caesarian section were more likely received postnatal care within 10 days of child birth than normal deliveries, 86.5% and 59.1% respectively. More babies born by cesarean section visited postnatal care at private and normally delivered babies mostly visited governmental facilities (2, 13).

2.2.3. **Awareness of the mothers about postnatal care**

More than half, 65%, the major factors that hindered mothers to utilize early and one week PNC were not aware about PNC, about 24% thought as PNC was not necessary (20).

Regarding awareness of mothers on the benefits of one week and six weeks postnatal care for themselves and their babies, 67.8% of them assumed full examination benefit them to identify complications and to treat if any, whereas 33.8% were to be sure as their body was return to normal. Factors promoted them to use one week PNC were advice from health care providers during discharge, baby growth and monitoring checkup. However 8% of them didn't know as postnatal care promotes their health (28).

Poor awareness of health care providers on postpartum guidelines and policies and community's limited knowledge on postnatal care were the factors that hindered to utilize PNC (6). They thought as PNC was all about for the children and vaccination. So that most of them sought health care when there was problem. Awareness about need of early postnatal care within one week must be provided. Unless otherwise, more than half came at six weeks for vaccination and family planning but few to discuss about breastfeeding and to prevent and treat delivery complication (14).

Women perceived that PNC was at any age and only for babies. They were confused with expanded program of immunization (EPI) program. They believed that PNC visit was for sick babies and injection harm their babies (30). About 81.9% indicated that physical examination was the main PNC services. Other advice on maternal and child nutrition, and family planning and breastfeeding were 55.1%, 28.4% and 37% respectively. Among not visited PNC majority of them (57.6%) didn't know about it and nobody visited them at a time (18).

The reasons they used the services were for immunization and family planning as well as when they felt bad after delivery (5).The main reasons mothers not used postnatal care were no or poor knowledge and being health (33).While among women gave birth at their home 4.8% gotten PNC service. Majority of them, 73.9%, reasons why they didn't use PNC services were lack of awareness and misconception on health professionals (35).

Study conducted in Abi-Adi, Ethiopia, respondents those gave birth in health institution only 17% had gotten the information from health care provider after delivery to come back for PNC. The same figure of women agree on PNC was minimize maternal and newborn death and about 45% of them perceived that no need for PNC visit whereas 82% were not sure whether PNC visits were important or not for the mother and newborn. Only 8.6% of the mothers knew when postnatal utilization started. Even if they were sick during postpartum period only 18% of them sought health treatment for their problem (11).

2.2.4. Health care provider and facility factors to utilize postnatal care

Place of delivery

Mothers those gave birth at health facilities and developed complications were less likely received PNC (2). Place of delivery was major factor significantly affected utilization of postnatal care within 10 days (18, 35). Mothers gave birth at health facilities were more likely seek early postnatal care (21, 23, 28, 30), were more significantly utilized postnatal care within six week of delivery (22) and were significantly used immediate PNC (26). The mothers gave birth in governmental institution less likely received postnatal care (21).

Majority of newborns (83%) who were delivered at home were more likely visited private health institutions for postnatal care within 10 days of after delivery and 47% those born in the health facilities (2). From those visited PPC half of them visited at health institution where they had given birth. Others at home visited by township hospital or village doctors. Generally, almost all about 92% were received postnatal care by village and township doctors. During home visit services provided for both mothers and neonates were; weighing and monitoring newborns (40%), counseling on infant feeding (37%) and cord care (32%), checking jaundice (24%) and only few (18%) were consulted for danger signs on both newborns and mothers after delivery (20). However, some researchers reported there was no association between postnatal utilization with place of delivery (11, 29).

Delivery attendant

Most of time utilization of postnatal care was influenced by person who attended delivery. Mothers who were attended by skilled person were more likely utilized postnatal care utilization (18, 25). On another way those not assisted by doctors were less likely visited postnatal care (21).

Advice on discharge

One factor promoted them to use one week PNC was advice from health care providers during discharge (28). From those gave birth at health institutions few of them visited postnatal care within one week. Poor advice on return for next visits, on 3 and 7 days after delivery hindered them to sought PNC early (6). From women those informed about PNC only 35.9% were knew kind of services offered (5).

Time staying in health institution after delivery

Time that the mother stayed in the health facilities after delivery was contributing factors. Study conducted in five different sub-Saharan countries revealed that mothers those discharged early were less likely utilized postnatal care (6, 30).

Distance from health facilities

Postnatal care utilization and the distance of health facility from where mothers have association. Those lived near to health facilities were more likely utilized early postnatal care after delivery (13, 20, 31)

Institutional structure

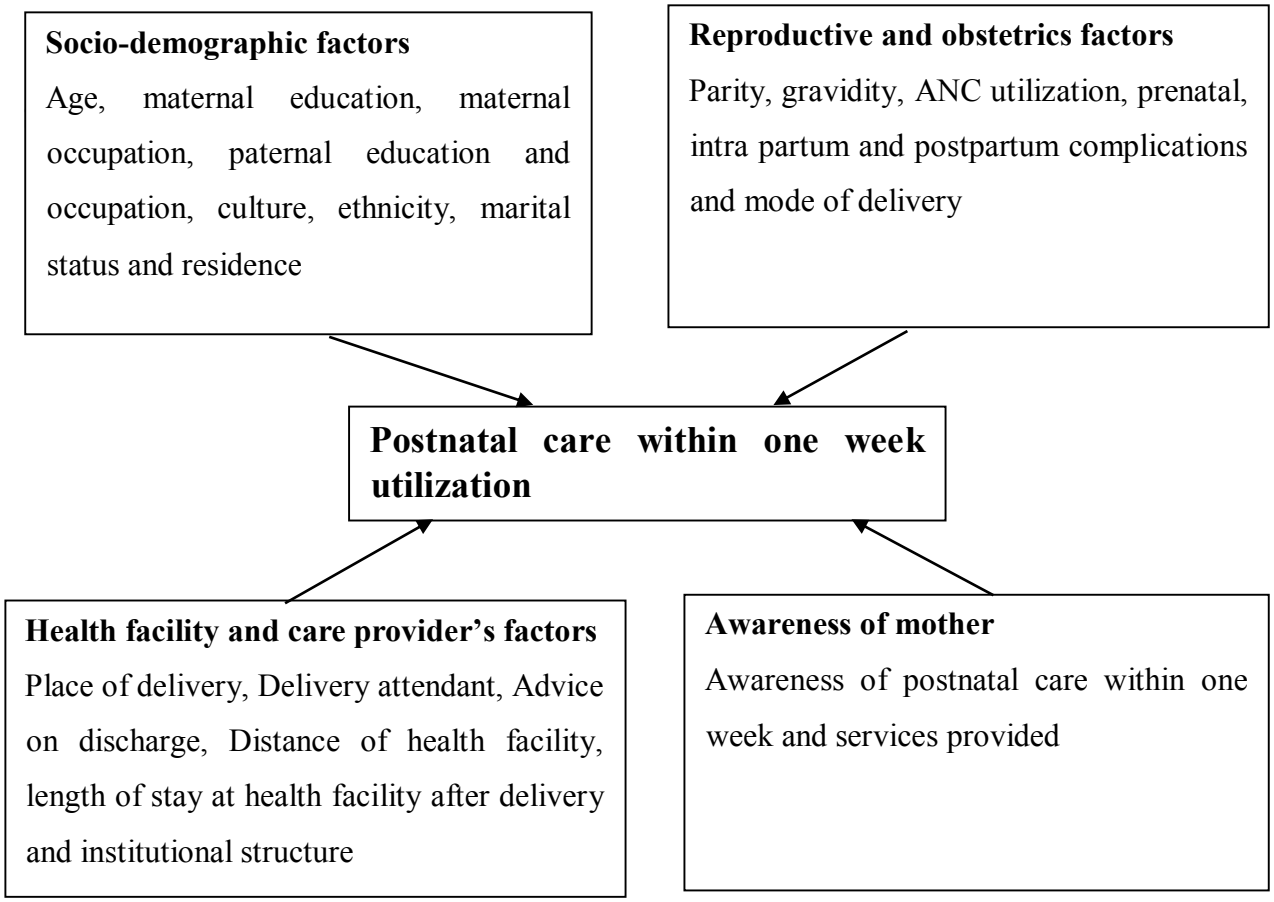
Researchers reported that facilities structure highly affect the PNC service that was provided. Not only availability but also accessibilities of the service influence utilization of postnatal care. Shortages of staff, equipment and supplies were common complaints in the community (14, 27, 30). Poor integration of the PNC services with other MCH services in the facilities hindered the mothers to receive one week PNC (6).

Maternal factors

The main reasons the women didn't seek PNC earlier were waiting for falling off of baby's cord stump, to have enough energy, negligence and unplanned pregnancy (30). Other studies showed that lack of time, lack of guardians for their children were hindered the mother to sought early postnatal care (14) and they thought as waiting at the health institutions kill the time (5). On another hand family sickness, postnatal sadness, lack of advice, misconception on health professionals and shortage of time were the major factors hindered them to utilize one week postnatal care (21, 28, 35).

2.3. Conceptual framework

This conceptual frame work was developed after reviewing different related literatures. It was mainly developed based on evidences found in different studies. There was stated association between dependent variable, postnatal care within one week utilization and independent variables like maternal socio-demographic, reproductive and obstetrics, health facility and health care providers' and maternal awareness factors.



Source: From all literature that have been already used.

Figure 1: Schematic presentation of conceptual framework of one week postnatal care utilization and associated factors

CHAPTER THREE

Objective

3.1. General objective

To assess prevalence and associated factors of postnatal care within one week utilization among women who had given birth in the last six weeks in Ameya district, Oromia regional state, Ethiopia, 2016.

3.2. Specific objectives

- ✓ To assess the prevalence of postnatal care within one week utilization.
- ✓ To identify associated factors of postnatal care one week utilization.

CHAPTER FOUR

Methods

4.1. Study area

This study was conducted in Ameya district, S/W/Shawa, Oromia regional State, Ethiopia which is far from capital city of Ethiopia, Addis Ababa, about 144 km. According to 2007 Ethiopia census, the total population of Ameya district was estimated 122,056(39). The district situated at the South West of the country and has 38 kebeles including two kebeles of the town. Oromia health bureau was responsible for the overall health activity in the district. There are 8 health centers, 36 health posts & 5 private clinics in the district. Out of the eight, assessment was conducted at four health centers selected from the district.

4.2. Study design

Institution based cross- sectional quantitative study was conducted.

4.3. Study period

The study was conducted from March 15 – April 15, 2016.

4.4. Source of population

All postnatal mothers who had given birth in the last six weeks in Ameya district.

4.5. Study population

All selected postnatal mothers who had come to selected health centers during study period.

4.6. Inclusion criteria and exclusion criteria

Inclusion criteria

- All postnatal mothers who had given birth in the last six weeks and come to health centers for MCH services during study period.

Exclusion criteria

- Postnatal mothers who had come to health centers for other services other than MCH services.
- Postnatal mothers who had given birth in the last seven (7) days.

4.7. Sample size determination

There was no specific prevalence for postnatal care within one week in the country. So, using 95% Confidence interval, 5% of marginal error, p-value 50% and applying single population proportion formula, sample size is: $n_o = \frac{(Z\alpha/2)^2 p(1-p)}{d^2}$ where, n_o –sample size

Z – standard normal value at 95% C.I which is 1.96

P – Prevalence of one week postnatal care utilization

d – Possible margin of error tolerated which is 5%

$\frac{(1.96)^2(0.5)(0.5)}{(0.05)^2} = 0.9606/0.0025 = 384.16 \approx 384$

The three months average number of mothers who come to eight health institutions at six week of delivery for MCH service utilization for one month from recorded data was **1406**. As source of population is less than 10,000, correction formula applied to get sample size for this study,

Nf: is final sample size,

n: is initial sample size and

N: is total number of population

⇨ $N_f = 1+no/N$

$Nf = \frac{384}{1+384/1406} = 302.362 \approx \mathbf{302}$

Adding 10% contingency the final sample size was:-

⇨ $Nf = 302 + (10/100)(302)$

$Nf = 302 + 30.2 = 332.2 \approx 332$

Actual sample size = **332**

4.8. Sampling method

The four health centers was selected by simple random sampling method (lottery method) and after proportional allocation to each health center, 332 study participants were selected by taking as a cluster those proportionally allocated to respected health centers. Total participants allocated for each selected health centers were calculated by the formula of **nf= n/N × sample size**, give that:

1. For Gindo health center =

$$\frac{\text{Total number of mothers come to Gindo health center for MNCH at six week}}{\text{Total number of mothers come to selected district health centers for EPI at six week}} \times 332$$

$$= \frac{295}{887} \times 332 = 111$$

2. For Kota health center =

$$\frac{\text{Total number of mothers come to Kota health center for MNCH at six week}}{\text{Total number of mothers come to selected district health centers for EPI at six week}} \times 332$$

$$\frac{228}{887} = \times 332 = 85$$

3. For Bareda health center =

$$\frac{\text{Total number of mothers come to Bareda health center for MNCH at six week}}{\text{Total number of mothers come to selected district health centers for EPI at six week}} \times 332$$

$$\frac{180}{887} \times 332 = 67$$

4. For Agamso health center =

$$\frac{\text{Total number of mothers come to Agamso health center for MNCH at six week}}{\text{Total number of mothers come to selected district health centers for EPI at six week}} \times 332$$

$$=\frac{184}{887} \times 332 = 69$$

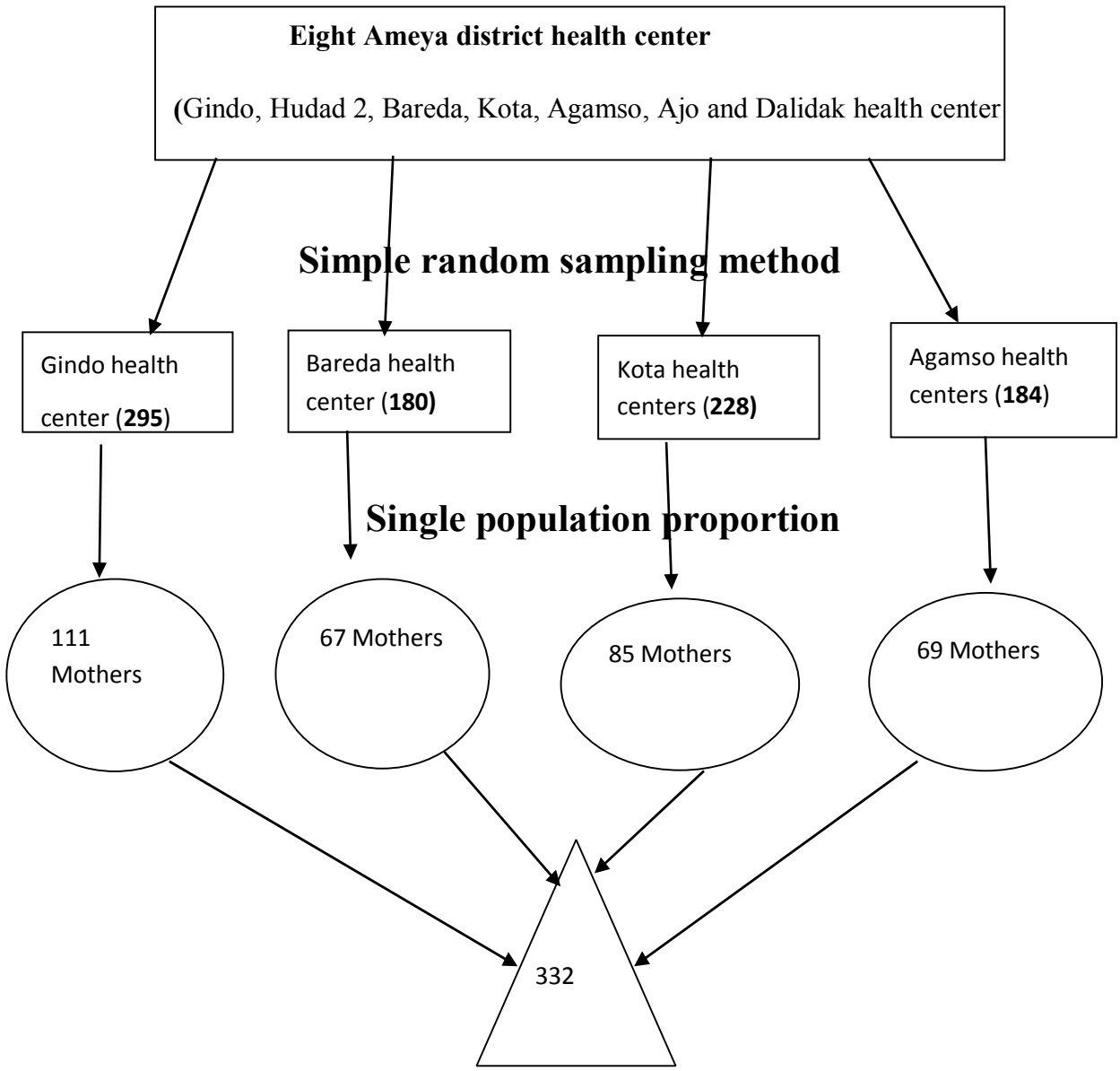


Figure 2: Schematic presentation of sampling procedure.

4.9. Study variables

Independent variables Socio- demographic characteristics

- ✓ Age, education, ethnicity, occupation, residence, marital status, monthly income, partner education and partner occupation

Reproductive and obstetrics factors

- ✓ Parity, gravidity, obstetric complication, postpartum complication, mode of delivery, previous history of PNC use and ANC utilization

Health care provider/sand facility factors

- ✓ Place of delivery**,** delivery attending**,** advise on discharge**,** length of stay at health facility after delivery, distance of health facility**,** institutional structure

Awareness of Postnatal care

- ✓ Awareness of postnatal care within one week and services provided in postnatal care within one week.

Dependent Variable

- ✓ Utilization of postnatal care within one week.

4.10. Operational definitions

PNC within one week utilized: those mothers who were served at list once by health professional or HEWs regardless of place of delivery and at any setup within the first seven days of delivery after discharged from health facility.

PNC within one week: utilization of PNC services regardless of time and place within seven days after delivery and after discharged if she was delivered at health facility.

Maternal and child health services: services including PNC, family planning and immunization for baby or mother or for both.

Far from health facility: postpartum mother whose home is take more than one hour by walking.

Grand multigravida mothers: mothers who gave seven or more children in her life.

Immediate postnatal care: the period after delivery of placenta till the first 6 hours.

Early postnatal care: the period from time of discharge from health facility to seven days of delivery

Antenatal care utilized: mothers who visited ANC clinic at least two times during current pregnancy.

Early discharge from delivery: mothers who discharged from health institution before 6 hours after delivery.

Health professional: Health care providers that gave MCH service (midwifery, nurse, Health officer (HO), or physician).

4.11. Data collection instruments and questionnaire development

Sum-structured interviewer administered questionnaire was used to collect data on prevalence of postnatal care within one week utilization and associated factors. All the questions were prepared in English and was translated to the language of Afan Oromo by experts who were fluent by both language and back translated to English to see its consistency.

4.12. Data collection procedure

Data collection was conducted through face to face interview by diploma holders health professions who didn't deployed with women come to health centers for MCH services within six weeks of delivery in selected health centers using adopted and developed sum-structured questionnaire. Twelve (12) data collectors were assigned by principal investigator for data collection three per health center. Data collectors was trained on how to interview depending on the aim of the study, methodology and how to approach to client before the actual data collection was carried out. Those data collectors had taken oral consent from participants after informing them about the procedure of interview, benefits and risk of the study. The data collection technique was supervised by two (2) supervisors and the principal investigator was guide the overall activities.

4.13. Quality assurance and management

The adopted and developed tool was evaluated with experienced researchers. Pretest was employed on 5% (17 postpartum mothers) of the sample size with sum-structured questionnaire on health center that was not selected in the district two weeks prior to the actual study. Consequently, some ambiguous variables were reduced from the questionnaire and others were arranged. After each respondents complete their interview, data collectors checked all questionnaires for completeness before the respondent leave. All questionnaires were checked for completion, clarity and proper identification of the respondents. Also daily evaluation of the data for completeness and encountered difficulties on the time of data collection was attended between data collectors and supervisors as well as principal investigator accordingly.

4.14. Data processing and analysis

Completeness of the questionnaire was rechecked preceding data entry. Following this, data coding and entry was accomplished using Epi-Data3.1 and exported to SPSS version 23.0. Data cleaning, recoding and analysis were performed with this SPSS. Bivariate logistic regression

analysis was done between independent variables and dependent variables. After checking associations of the variables, those with $p<0.2$ were processed to multivariate logistic regression analysis to control confounding factors in the association. P-value of < 0.05 was used to express statistical significance of the variables. Sentence, table of frequency and graphs were used presentresult of this study.

4.15. Ethical consideration

Ethical clearance and official letter was obtained from the Research and Ethics Committee of School of Nursing and Midwifery of AAU to Ameya district health office. After getting permission from the woreda's office, request letter was sent to respective health centers' managers. Following these, they were inform MCH team health care providers. Then, searching and obtaining of the selected samples were accomplished. Informed written consent and figure print were secured from each study participant. Finally, strict care for the patient's confidentiality was involved throughout the time of data collection up to end.

CHAPTER FIVE

Results

From all the respondents about eighty four (25.3%) of respondents had utilized PNC within one week of postpartum after discharge from health facilities (Figure: 1 below)

Prevalence of postnatal care within one week utilization

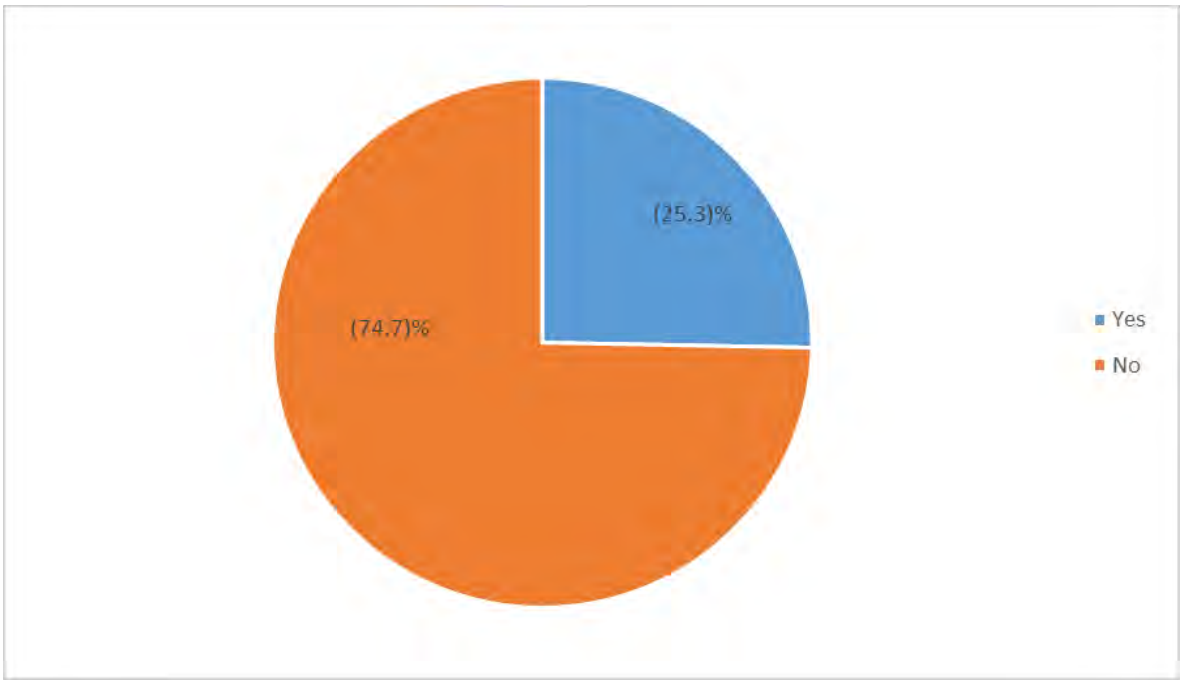


Figure 3: Distribution of mothers' PNC within one week utilization in Ameya district, Oromia regional state, Ethiopia, 2016.

5.1. Socio-demographic characteristics

Table 1: Socio demographic characteristics of mother and postnatal care within one week utilization in Ameya district, Oromia regional state, Ethiopia, 2016.

Variables	Frequency	Percent
Age in years		
<25	126	38.0
25-35	168	50.6
>35	38	11.4
Religion		
Orthodox	162	48.8
Muslim	79	23.8
Protestant	91	27.4
Ethnicity		
Oromo	269	81.0
Amara	60	18.1
Gurage	3	0.9
Place of residence		
Urban	138	41.6
Rural	194	58.4
Current marital status		
Married legally/with friend Unmarried	309	93.1
	23	6.9
Maternal level of education		
No formal education	173	52.1
primary education	98	29.5
High school education	40	12.0
Above high school education	21	6.3
Partner level of Education (n=309)		
No formal education primary	121	39.2
education High school	109	35.3
education	45	14.6
Above high school education	34	11.0
Occupation of mother		
Employer	24	7.2
Merchant	49	14.8
Daily laborer	8	2.4
House wife	251	75.6
Husband 0ccupation (n=309)		
Farmer	192	62.1
Employer	38	12.3
Merchant	62	20.1
Daily laborer	17	5.5

A total of 332 postpartum mothers were participated in the study with a response rate of 100%. Accordingly, analysis was made based on all participants. About 168 (50.6%) of respondents were belong to age group 25-35 years with mean age of 27.82 (SD of ± 5.88) years respectively.

One hundred ninety two (62.1%) and one hundred twenty one (39.2%) of women's partners were farmers and no formal education respectively (Table: 1 above).

5.2. Obstetrics complications and reproductive characters of mothers

Table 2: Obstetrics complication characteristics and utilization of postnatal care within one week in Ameya district, Oromia regional state, Ethiopia, 2016.

Variables	Frequency	Percent
Complication faced during pregnancy		
Yes	60	18.1
No	272	82.9
Complications faced at time of delivery		
Yes	54	16.3
No	278	83.7
Type of complications at time of delivery(n=54)		
Prolonged labor	34	63.0
Fetal distress	15	27.8
PIH (Pre-eclamsia/Eclamsia)	3	9.3
Complications faced after delivery		
Yes	63	19.0
No	269	81.0

Out of all the respondents, 275 (82.8%) had no history of abortion. Two hundred sixty (78.3%), sixty four (19.3%) and less proportions eight (2.4 %) were given birth less than four, four to six and more than six children respectively. Large proportion, 290 (87.3%), had ANC follow up. Out of those who had ANC follow up 231 (69.6%) of respondents visited health center three to four times. Of mothers who gave birth before two hundred thirty seven (93.8%) and fifteen (6.2%) had utilized postnatal care in previous delivery. For the mother about 154 (46.4%), 174 (52.4%) and 4(1.2%) the last pregnancy was planned and supported, unplanned but supported and unplanned and unsupported respectively

Among mothers who had complications during pregnancy 6 (10%), 41 (68.3%), 32 (53.3%), 29 (48.3%), 1 (1.7%) and 9 (15%) had complained bleeding, severe headache, severe abdominal pain, blurring vision, no or poor infant movement and high grade fever respectively. On the other hand

from 63(19%) who had developed complications after delivery thirty two (50.8%), seventeen (27.02%), forty four (69.8%), seven (11.1%), twenty nine (46%) and six (1.8%) had faced heavy bleeding, high grade fever, and severe headache, blurring vision, severe abdominal pain and offensive vaginal discharge respectively (Table: 2 above). From mothers who had developed complication, thirty four (54%), twenty four (38.1%) and five (7.9%) were sought care from health institution immediately, traditional birth attendants and had left the complication respectively.

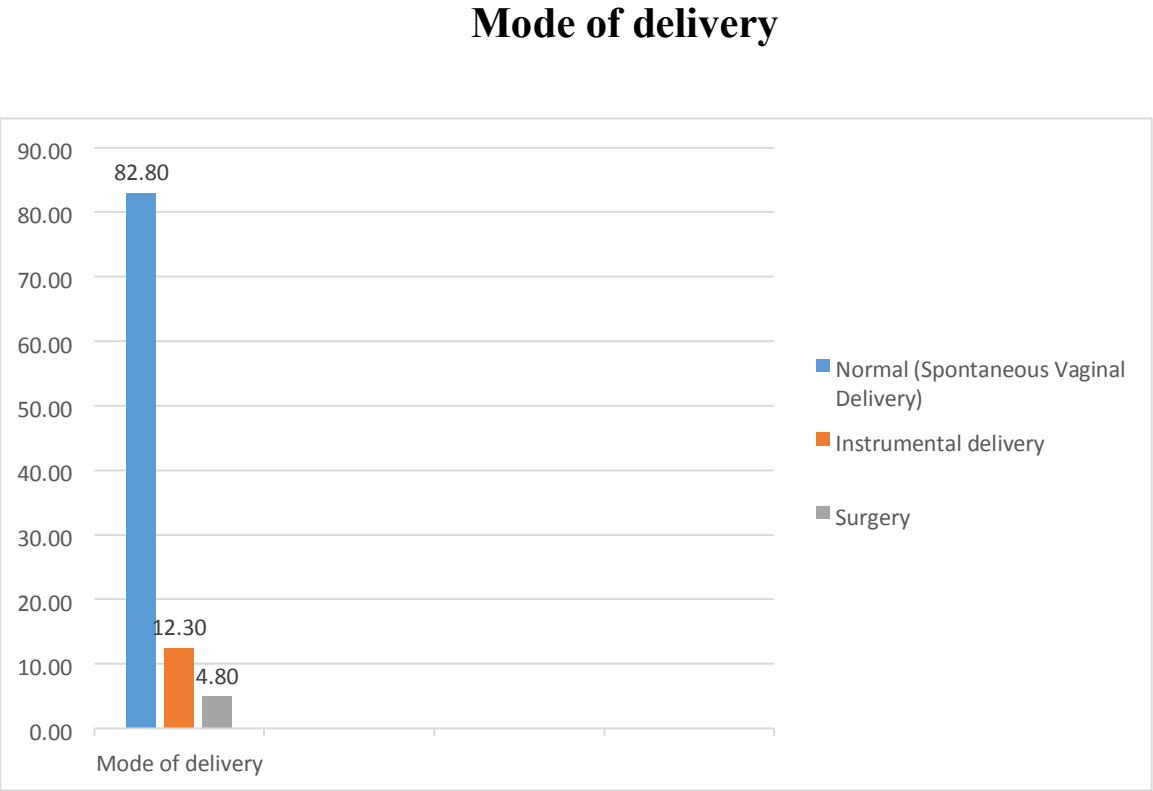


Figure 4: Distribution of mode of delivery among mothers gave birth in last six weeks in Ameya district, Oromia regional state, Ethiopia, 2016.

Majority of respondents, 275 (82.8%) were delivered spontaneously vaginal delivery. Forty one (12.3%) and sixteen (4.8%) were delivered by instrumental delivery and obstetrics caesarian section (C/S) respectively (Figure: 4 above). Out of those delivered by surgery about fifteen (93.8%) and one (6.2%) surgery was done for them because of Emergency surgery and Elective surgery respectively.

5.3. Health facilities and health care providers' factors

Table 3: Health care providers' characteristics and utilization of postnatal care within one week in Ameya district, Oromia regional state, Ethiopia, 2016

Variables	Frequency	Percent
Delivery attendants		
Health profession	248	74.7
Health extension workers	6	1.8
Traditional birth attendant	78	23.5
Having appointment PNC within one week of From health profession (n=248)		
Yes	163	65.7
No	85	34.3
Advised possible postpartum complications by health profession (n=248)		
Yes	68	27.4
No	18	72.6
Advised possible newborn complications by health profession (n=248)		
Yes	77	31.0
No	171	69.0
Mothers who were visited one week PNC at the home		
Yes	51	15.4
No	281	84.6
Time taken from mother's home to health facility		
Below 30 minutes	173	52.1
About 30 minutes to an hour	92	27.7
Above one hour	67	20.2
Place of delivery		
Home	84	25.3
Health center	225	67.8
Health post	3	0.9
Government hospital	20	6.0
Hour stay in facility after delivery in hours (n=248)		
<6	103	41.5
6-24	123	49.6
>24	22	8.9

From mothers who had given birth in health facility (248) about 163 (65.7%), 5 (3.1%), 24 (14.7%) and 160 (98.2%) had been given postnatal care appointments at less than 24 hours, within 2-3 days , within 6-7 days on six weeks respectively. Of mothers those who had advised about65 (95.6%) and 46 (67.6%) were advised on heavy bleeding and severe headache respectively. Regarding newborn seventy (90.9%), fifty one (66.2%) and forty (51.9%) were advised on severe fever, poor

or unable suck breast and yellowish of skin color complications respectively. Out of mothers had been visited at their home (51) more number 36 (70.6%) and less number 15 (29.4%) were visited by health professions and HEWs. One hundred twelve (33.7%) of participants reported as the facility where they gotten MNCH services had problems on service provision but two hundred twenty (66.3%) didn't (Table: 3 above).

5.4. Awareness and barriers to utilization of PNC within one week

Table 4: Awareness of mother and barriers to utilization of postnatal care within one week in Ameya district, Oromia regional state, Ethiopia, 2016.

Variables	Frequency	Percent
Awareness of mothers on PNC one week services		
Yes	72	21.7
No	260	78.3
Barriers to utilized one week PNC (n= 248)		
Culture	101	40.6
Waiting for falling off of baby's cord stump	4	1.6
To have enough energy	62	24.9
Lack of time	13	5.2 2.0
Lack of guardians for my children	5	1.2
Waiting the service kill the time	3	89.2
Lack information of advice	22	5.2
Health professionals were not care client in good manner	13	

Out of all participants only seventy two (21.7%) had awareness about PNC within one week services. From those who had awareness about the services 57 (79.2%),37 (51.4%), 30 (41.7%), 36 (50.0%), 34 (47.2%), 26 (36.1%) and 27 (37.5%) had information on physical examination (P/E), physical examination for new born, family planning service, immunization services, advising on postpartum complications, advising on nutrition and breast feeding practice respectively. Out of respondents who didn't visit PNC within one week of delivery, one hundred one (40.6 %) and sixty two (24.9%) were not utilized PNC within one week because of culture and have no enough energy respectively (Table: 4 above).

5.5. Factors associated with PNC within one week utilization

Table 5: Factors associated with post natal care within one week service utilization among Ameya district, Oromia regional state, Ethiopia, 2016

Characteristics	Utilization of PNC within one week (%)		COR (95% CI)	AOR (95% CI)
	Yes	No		
Partner occupation				
Employer	28	10	0.67(0.20, 2.20)	**5.57(1.07, 29.023)***
Merchant	13	49	9.1(2.40, 34.52)	**0.14(0.31, 0.65)***
Daily labor	4	13	0.86(0.24, 3.09)	**1.**18(0.14, 10.06)
Farmer	33	159	1.00	1.00
Parity				
<4	75	185	2.84(1.34, 5.99)	**2.**07(0.58, 7.37)
>=4	9	63	1.00	1.00
Complications during labor and delivery				
Yes	26	28	3.52(1.92, 6.46)	**7.84(2.29, 26.88)****
No	58	220	1.00	1.00
Complications after delivery				
Yes	31	32	3.95(2.22, 7.04)	2.62(0.83, 8.29)
No	53	216	1.00	1.00
Appointed by health professionals for PNC visit before discharge				
Yes	62	101	3.11(1.62, 5.99)	0.77(0.24, 2.57)
No	14	71	1.00	1.00
Distance of health center from mothers' home				
Less than 30' 30'	58	115	3.25(1.51, 7.02)	**5.13(1.15, 22.88)***
to 60'	17	75	1.46(0.61, 3.51)	0.94(0.182, 4.86)
Above 1 hour	9	58	1.00	1.00
Advice on maternal postpartum complications				
Yes	37	31	4.31(2.38, 7.82)	**3.32(1.09, 10.14)***
No	39	141	1.00	1.00
Advice on neonatal complications				
Yes	44	33	5.79(3.20,10.48)	**4.69(1.56, 14.08)***
No	32	139	1.00	1.00
Utilization of PNC within one week in previous delivery				
Yes	10	5	6.57(2.18, 19.82)	11.99(1.69, 85.22)
No	74	243	1.00	1.00
Awareness of PNC within one week services				
Yes	48	24	12.44(6.81,22.75)	**4.16(1.3, 13.31)***
No	36	224	1.00	1.00

**p<0.05=statistically significant, **p<0.001= statistically significant*.

In order to identify the association of independent variables with utilization PNC within one week both bivariate and multivariate analysis were used. From statistically significant independent variables showed association with outcome variable only seven of them were significant in the bivariate analysis with P<0.2. Partner occupation, complication during labor & delivery, distance between her home & health center, advised on maternal postpartum complications, advised on neonatal complications and awareness of PNC within one week services were remained contributing factors for multivariable logistic regression with P <0.05.

Mothers whose husband were employee 5.58 times more likely to utilize PNC within one week of delivery as compared with these whose husband were farmer [AOR=5.575, 95% CI= (1.071, 29.023)]. Mothers who had complication during labor and delivery were 7.8 times more likely to utilized PNC within one week of delivery as compared to those who had no complication during labor and delivery [AOR=7.841, 95% CI= (2.287, 26.879)].

Mother who had received advice about postpartum complication on herself was 3.32 time more likely utilized PNC within one week when compared to those who didn't receive advise on postpartum complications [AOR=3.32, 95% CI= (1.09, 10.14)]. Also Mother who had received advice newborn complication was 4.69 time more likely visited PNC within one week when compared to those who didn't receive advise on newborn complications [AOR=4.69, 95% CI= (1.56, 14.08)].

The study finding showed mothers near to health facility were 5.13 times more likely utilized PNC within one week of delivery as compared to those far from health center [AOR= 5.127, 95% CI= (1.149, 22.878)]. The finding showed the mothers who had awareness of PNC within one week services were 4.161 times more likely utilized PNC within one week of delivery as compared to who had no awareness [AOR=4.161, 95% CI= (1.300, 13.314)]. (Table: 5 above).

CHAPTER SIX

6.1. Discussion

The study tried to assess prevalence and associated factors with PNC within one week utilization in Ameya district, Oromia regional state, Ethiopia.

Evidence from the present study indicated that postnatal care within one week service utilization was 25.3%. This was significantly higher than the previous report by mini EDHS which 13% for any PNC (7) and research conducted in Jabitena, Ethiopia which was 20.2% (36). This may be attributed to the time difference that there could be improvement in accessing and utilizing health care service through time. But the study was almost comparable with study conducted in Burkina Faso which was 25% and lower than Kenya, Malawi and Mozambique in 2015 (6). The difference might be due to study methodology which was systemic approach for intervention.

This finding was higher than study conducted in Northern and South center of Ethiopia in 2014 which was 10.2% of PNC within three days of delivery (34) and in Dembecha, Northwest Ethiopia, in 2015 was about 0.8% within 2-7 days of delivery (35). This may be due to study design and geographical variation. Also this prevalence was higher than study conducted in India, M. Pradesh, in 2014 which was 4.3% (18) & research undergone in China in 2014 which was 8% (20). It may be due to methodological variation.

About 40.6% and 24.9% of the respondents reported that the reason they had not utilized PNC within one week were culture and not having enough energy respectively. Although culture was not significantly associated in this study, research conducted in Nepal, in 2014, revealed that culture was significantly associated with utilization of early PNC (25). This may be due to different in study area and study methodology.

Even though it was not stated in other studies, partner's occupation was found to have statistically significant association with utilization of PNC within one week of delivery. The mothers whose husband was employee had highly utilized the service than those whose husband was farmer. This may be due to occupation of husbands' directly influence their socio-economic which affects the life style of the family. But the mothers whose husband were merchant less likely utilized PNC within one week when compared to those employee husbands. The reason behind may be due to merchant husbands were busy throughout the day time and unable to accompany when she want to visit health facility. Maternal occupation, educational level and place of delivery were significantly associated with postnatal care utilization in different countries and Abi Adi, Tigrai,

Ethiopia (11, 27) but in this study these were not significantly associated. This may be due to, awareness of utilization increased through time by the government, geographical and type of methodology variation.

Another factor affecting PNC within one week utilization was having complication during labor and delivery. Mothers who had developed complication during labor and delivery more utilized the service when compared to those who had not developed any complication. This was consistent with study conducted Nepal in 2011, Nigeria in 2014 and in Bangladesh 2012 (25, 28, 37).This was probably the mothers who had complication at a time of delivery were consulted by health providers immediately after delivery and advised on the necessity of PNC within one week utilization.

Study conducted on socio-economic inequalities in the use of postnatal care in India, reported as complication after delivery was influencing PNC service utilization (2). But in this finding even if it was significant in bivariate logistic regression, developing complication after delivery was not significantly associated. This may be due to the study conducted in India used secondary data and the intension was to compare PNC and ANC services utilization.

Distance from nearby health center had statistical significant association with utilization of PNC within one week of delivery. Mothers lived nearby to health facility and walk less than 30 minutes to reach health facility more likely utilized PNC when compared to mothers far to reach nearby health facility. This was similar to the result showed on study conducted in Tanzania in 2009, in Hebei, China in 2014 and in Kenya in 2013 (13, 20, 31) which were significantly associated with utilization of PNC within one week of delivery. The reason behind may be due to mothers getting tired and the cultural influence to walk long distance day time to health facility. Mothers who had been advised about postpartum complication on both mothers and newborn before discharge after delivery in this study more likely utilized the PNC service within one week. This was similar with study in Adwa Town, Tigray, Ethiopia in 2013, in four sub-Saharan African countries in 2015 and in Nigeria by 2014 (5, 6, 28). This was due to advice probable increased awareness of the mothers.

Women who had awareness about PNC within one week of delivery were significantly associated with utilization of PNC within one week of delivery. Mothers who had awareness about PNC within one week services more utilized it when compare to those who hadn't any awareness about PNC within one week service. This is similar with study conducted in Tanzania in 2009 (31). Because awareness increases the demand for PNC within one week utilization.

CHAPTER SEVEN

7.1. Strength and limitation of the study

Strength:

To our knowledge this study is from those at beginning to assess prevalence and factors associated with PNC within one week of delivery in such category especially in the context of this country. To minimize recall bias the respondents were who had given birth in the last six weeks and come to health centers for MNCH services during the study time.

Limitation:

Despite the fact that the necessary endeavors were made to minimize or avoid the possible shortcomings of this study, the result should be interpreted in the light of the following unavoidable limitations. This study utilized cross sectional study design which made the findings impossible to establish causal relationship between the outcome and independent variables.

The study didn't address the mothers who had given birth and gone to health posts at six weeks of delivery for MNCH services during study period.

CHAPTER EIGHT

8.1. Conclusion and recommendations

Conclusion:

The finding revealed that institutional delivery was high but prevalence of PNC within one week utilization of delivery was low. Majority of the mothers were advised on six weeks of delivery for PNC visit and have no awareness on PNC within one week utilization service. Advising on postpartum complication on both mother and newborn by health care providers before discharging from the postnatal ward increases the utilization of PNC within one week. Independent variables like partner occupation, complication during labor and delivery, distance of health center from mother's home and having awareness of PNC within one week were significantly associated with utilization of early PNC.

Recommendations:

Based on the findings of this study, the following recommendations were made.

MOH and other health development stalk holders better if:

- ✓ Strengthen provision of information, education and communication for the community.
- ✓ Mentoring and supervising the health centers activities MNCH especially PNC service to be provided timely at health institution s as well as at home.
- ✓ Develops and access an updated PNC guidelines to the health facilities.

Health professionals who work at delivery ward recommended that:

- ✓ Counseling and advising the mother about advantages PNC within one week utilization
- ✓ Advise the mother when and where she can get PNC within one week services before discharged from postnatal ward.
- ✓ Follow an updated guidelines for PNC services.
- ✓ Develop referral mechanism between health center and health posts.

Health extension worker better if:

- ✓ Find the mothers who gave birth in their kebele and visiting at their home timely as recommended schedule by WHO.

- ✓ Having health education session for those come to MNCH services on PNC within one week and educating the community at household level to increase the awareness of community.

Researchers: It will be more valuable if studies will be conducted on this subject matter with alternative study design so as to find more factors associated with PNC within one week utilization.

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Annex 1: Informed consent form (English version)

Information sheet

Introduction: My name is ----------. I am working as data collector for the study being conducted in this health center by Mr. Teshome Melese (BSc in Midwifery), who is studying his master's degree in Maternity and Reproductive Health Nursing at Addis Ababa University, College of Health Sciences, School of Nursing and Midwifery. The study intended to assess prevalence of one week postnatal care utilization and associated factors among women in the district.

Purpose: Information obtained from this study may be used by MOH, organizations supporting services in your community, researchers and district health office for promotion of utilization of one week postnatal care services and work on factors influencing their utilization in general.

Procedure and duration: I will be interviewing you using a questionnaire to provide me with pertinent data about postnatal care for recent birth that is helpful for the study. There are about 47 questions to answer where I will fill the questionnaire by interviewing you. The interview will take about 30-45 minutes, so I kindly request you to spare me this time for the interview.

Risks: There is no risk being participating in this study. It will not cause any physical harm on you and the community.

Benefits: There would not be any direct payment for participating in this study. But the findings from this research may reveal important information for the district health office.

Confidentiality: The information that you provide me will be confidential. The findings of the study will be general for the study population and will not reflect individual person.

Rights: Participation in this study is fully voluntary. You may refuse to answer any question or choose to stop the interview at any time.

Contact address: If there are any questions or enquires any time about the study, please contact and speak to principal investigator, Mr. Teshome Melese by phone number: 0913860839/0947403005 and Email: *teshemele@gmail.com*.

Consent form

With the above informations provided form by reading on risk, benefits, confidentiality and right of this study, I declare my voluntary consent for to participate in this study with my signature as indicated below.

Participant's signature …… Interviewer's signature……

Date……/……/2008E.C Date……/……/2008E.C

May I begin the interview? Yes …… No…....

Starting time…….

Ended time……

Annex 2: Questionnaires for data collection (English Version)

Part I. Socio-demographic characteristics of the mothers in Ameya district, Oromia regional state, Ethiopia, 2016.

S/No	Questions	Response and Coding	Skip/go
101	Women's Code		
102	Age of the mother		
103	Religion	1. Orthodox 2. Muslim 3. protestant 4. Other, specify…….	
104	Ethnicity	1. Oromo 2. Amhara 3. Gurage 4. Other, specify……	
105	Residence	1. Urban 2. Rural	
106	Current marital status	1. Married legally/with friend 2. Unmarried 3. Divorced 4. Widow	
107	Educational status	1. No formal education 2. Primary school 3. Secondary school 4. Above Secondary school	
108	Husband level of Education	1. No formal education 2. Primary school 3. Secondary school 4. Above Secondary school	

109	Occupation	1.Employee(government/Nongovernment) 2. Merchant(your own business) 3. Daily laborer 4. House wife 4. Other, specify it……	
110	Husband occupation	1. Farmer 2. Employer (government/ nongovernment) 3. Merchant (own business) 4. Daily labor 5. Other, specify it…….	

Part II: Reproductive and Obstetrics characters of the mothers in Ameya district, Oromia regional state, Ethiopia, 2016.

201	History of abortion (induced or spontaneous)	1. Yes 2. No	
202	Parity		
203	How was the condition of the pregnancy for you?	1. Planned and supported 2. Unplanned but supported 3.Unplanned and unsupported	
204	Did you have ANC follow up?	1. Yes 2. No	2 skip 206
205	If Q204 yes, how many visits?	……time/s	
206	Have you ever faced any complication during pregnancy?	1. Yes 2. No	2 skip 208

207	If Q206 yes, what were complication you have faced during pregnancy?	1. Vaginal bleeding 2. Severe headache 3. Severe abdominal pain 4. Blurring vision 5. Poor or no fetal movement 6. High grade fever 7. Other, specify……	
208	Have you any complication at a time of delivery?	1. Yes 2. No	2 skip 210
209	If Q208 yes, what was/were complications at a time of delivery?	1. Labor lasting long time to deliver 2. Fetal distress 3. Pregnancy induced hypertension (Pre-eclamsia/ eclamsia) 4. Other, specify……..	
210	What was mode of delivery?	1. Normal (Spontaneous Vaginal Delivery) 2. Instrumental delivery 3. Surgery	
211	If Q210 was by surgery, what type performed for you?	1. Emergency surgery because problem in progress of labor 2. Elective without any problem at a time of delivery	
212	Have you developed complication after delivery?	1. Yes 2. No	2 skip301
213	If Q212 yes, what was/were complication/s?	1. Heavy bleeding 2. High grade fever 3. Severe headache 4. Blurring vision 5. Severe abdominal pain 6. Offensive vaginal discharge 7. Redness and pain on breast	

214	For the problem/s what measures have you taken?	1. Immediately gone to health facilities 2. Discussed with traditional birth attendant 3. Discussed with traditional healers to have traditional treatment 4. I have left it	

Part III: Health care provider and facility factors in Ameya district, Oromia regional state, Ethiopia, 2016.

301	How many minutes/hours it takes to reach this health center?	1. Below 30 minutes 2. About 30 minutes to one hour 3. Above one hour	
302	Where did you gave birth?	1. Home 2. Health center 3. Health post 3. Government hospital 4. Private clinic/hospital 5. Other, specify it……	
303	Who attended you at time of delivery?	1. Health profession 2. Health extension workers 3. Traditional birth attendant 4. Other, specify it……	2 & 3 skip 311
304	If Q303 is health professional, did he/she tell or appoint you for PNC within one week before discharge?	1. Yes 2. No	2 skip 306

305	If Q304 yes, when was your appointment?	1. Less than 24 hours 2. Within 2-3 days 4. Within 6-7 days 5. On six weeks 6. Other, specify…….	
306	If Q303 is health professional, did he/she tell you possible postpartum complication you may face before discharge??	1. Yes 2. No	2 skip 308
307	If Q306 yes, what are possible postpartum complications you were told before discharge?	1. Heavy bleeding 2. High grade fever 3. Severe headache 4. Blurring vision 5. Severe abdominal pain	
		6. Offensive vaginal discharge 7. Redness and pain on breast 8. Others specify……..	
308	If Q303 is health professional, did he/she tell you possible newborn complication/s?	1. Yes 2. No	2 skip 310
309	If Q308 yes, what are possible newborn complication/s before discharge?	1. High grade fever 2. Unable or poor to suck breast milk 3. Weakness of the body (Floppiness) 4. Granting 5. Unable to breath 6. Bluish color 7. Vomit every breast milk sucked	
310	How many hours/days stay in the health institution after delivery?		
311	Did somebody visit you at your home after delivery?	1. Yes 2. No	2skip 313

312	If Q311 yes, who visited you?	1. Health profession 2. Health extension workers 3. Traditional birth attendant 4. Other, specify ……	
313	Did you have one week postnatal care in the previous delivery? (if you gave birth before)	1. Yes 2. No	
314	Did you have postnatal care within one week after delivery for this birth?	1. Yes 2. No	

Part IV: Awareness of mothers and barriers to PNC within one week utilization in Ameya district, Oromia regional state, Ethiopia, 2016

401	Did you have information about postnatal care within one week services?	1. Yes 2. No	2skip 403
402	If Q401 yes, what are types of postnatal care within one week services provided?	1. Physical examination for mother 2. Physical examination for baby 3. Provision of family planning 4. Provision of immunization 5. Advising on danger signs after delivery 6. Advising on nutrition 7. Advising on hygiene 8. Advising on breast feeding 9. Others, specify	

403	If Q501 No, why you didn't come one week postnatal care after delivery?	1. Culturally it is not recommended to out from home within one week of delivery 2. Waiting for falling off of baby's cord stump 3. To have enough energy 4. Pregnancy was unplanned 5. Lack of time 6. Lack of guardians for my children 7. Waiting the service kill the time 8. Lack information of advice 9. Health professionals were not care client in good manner 10. Other, specify……..	

Thank you very much for your participation!

Annex 3: Consent form (Afan Oromo version)

Fuula odeefannoo

Seensa: Maqaan koo…….dha. Ani qorataa obboo Tashoomaa Mallasaa barumsa mastarsii "maternity and reproductive health nursing" univarsiitii Finfinnee, kolleejjii saayinsii fayyaa, dippartimentii Nursiifi Midwifariitti qorannoo tajaajila hordoffii hadhoolee dahumsa booda torbee tokko keessatti godhamuufi wantoota isan walqabatan irratti godhaniif nama ragaalee walitti qabuudha.

Kaayyoo: Odeeffannoon qoranno kanarra walitti qabamu ministera fayyaaf, dhaabbilee faayyaa garagarsa ummataaf, qoratoota birootifi waajjira aanaatiif akkataa tajaajila dahumsa booda torbee tokko keessatti hadholiif godhamu akkaata itti fayyeesaniif ni fayyada.

Adeemsa: Gaafille irratti hundahuun ani sin gaafadha atis tajaajila dahumsa booda torbee tokko keessatti argatte ragaalee qorannoo kanaf barbaachisaa ta'an naf kennita. Gaaffileen kunis hanga 47 baayyatu. Kunis daqiiqa 30 hanga 45 fudhata. Kanaafuu, gaaffiifi deebii kanaf yeroo kee akka naf kennitu kabajaanin si gaafadha.

Midhaa: Sababa qorannoo kana irratti hirmatuuf rakkon tokko akka sirra hin geenye sifan mirkaneesa. Qaama kee irrattis ta'ee hawasa kana irratti miidhaa hin fidu.

Fayyidaa: Hirmanna kee qoranno kana irratti hirmaatuf waanti kallatiin sif kanfalamu hin jiru. Garuu bu'aan qoranno kanaa waajjira fayyaa aanaatif raga garii laata.

Iccitii eeguu: Iccitiin odeeffannoo ati naf kennitu akka eegamu sifan mirkaneesa. Argannon isaas nama dhuunafa osoo hin taane ummaticha qorannoon irratti godhamu bakka bu'a.

Mirgoota: Hirmannan qoranno kana fedhii irratti kan hundaa'eedha. Gaaffilee barbaade dhiisus tahee sa'aa kamittuu hirmanna kee addan kutuu dandeessa.

Teessoo qunamtii: Gaaffiin yookin rakkinni kamuu qorannoo kana irratti yoo siyi muddate karaa bilbila 0913860839/0947403005 yookin email teshemele@gmail.com tiin qorataa obboo Tashoomaa Mallasaa argachuu dandeessa.

Formii waliigaltee

Odeeffannoo armaan oli irraa kaneen akka fayidaa, rakkoo, Icciitii eeguufi mirgaan qorannoo kana haalan waan na hubbachiianif, qorannoo kana irratti fedhii kootin hirmachuu koo mallatoo kootin akkataa armaa gadiitti nan ibsi.

Mallatoo hirmaata…… Mallatoo gaafataa……

Guyyaa… /……/2008 Guyyaa ……/…../2008

Jalqabuun nan danda'a? Eyyen…….. Lakki……..

Sa'aa itti jalqabame…….

Sa'aa itti dhume……

Annex 4: Questionner for data collection (Afan Oromo version)

Kutaa I: Haal jireenya haadhaa aanaa Amaayyaa, Oromiyaa, Itiyoophiyaa, 2016.

Lakk.	Gaaffilee	Deebi fi koodii	Taruu/deemu
101	Koodii haadhaa		
102	Umurii haadhaa	…….	
103	Amantii	1. Ortodoksii 2. Musiliima 3. Pheenxee/protestant 4. kan biraa, ibsi ……	
104	Saba	1. Oromoo 2. Amaara 3. Guraagee 4. kan bira, ibsi	
105	Bakka jireenyaa	1. Magaala 2. Baadiyya	
106	Haala heeruma ammaa	1. Seeran kan heerumte/hiriyaa waaliin 2. Kan hin heerumne 3. Kan hiikte 4. Kan irra du'e	
107	Sadarkaa barumsaa	1. Kan barumsa iddilee hin baranne 2. Barumsa kutaa sadarkaa tokkoffaa 3. Barumsa kutaa sadarkaa lammaffaa 4.Barumsa kutaa sadarkaa lammaffaa olii	
108	Sadarkaa barumsa abbaa warra	1. Kan barumsa iddilee hin baranne 2. Barumsa kutaa sadarkaa tokkoffaa 3. Barumsa kutaa sadarkaa lammaffaa 4.Barumsa kutaa sadarkaa lammaffaa olii	

109	Hojii/dalagaa	1. Qacaramtu (mootumma/mitimootummaa) 2. Daldaaltu (kan ofii) 3. Hojjetuu guyyaa 4. Haadha manaa 5. Kan biraa, ibsi……	
110	Hojii abba warraa	1. Qotee bulaa 2. Qacarama (mootummaa/ mitimootumma) 3. Daldaala (kan ofii) 4. Hojjetaa guyyaa 5. Kan biraa, ibsi……..……	

Kutaa II: Walhormaata fi haalota ulfaa haadhaa aanaa Amaayyaa, Oromiyaa, Itiyoophiyaa, 2016.

201	Seenaa ulfa ofirraa basuu (ofin yookin qorichan) qabda?	1. Eyyeen 2. Lakki	
202	Ala meeqa ulfoofte?	Ala……..	
203	Ulfawuun kee siyiif haala kamiin ture?	1. Karooran fi ni deegarama 2. Karooran miti garuu ni deegarama 3. Karooranis miti hin deegaramus	
204	Hordoffi ulfaa goote?	1. Eyyeen 2. Lakki	2 tari 206
205	Yoo G204 eyyeen tahe, ala meeqa goote?	Ala……	
206	Rakkoo fayya walxaxaan yeroo ulfaa siyi muddatan jira?	1. Eyyee 2. Lakki	2 tari 208

207	Yoo G206 eyyeen tahe, maal fa'i?	1. Dhangala'uu dhiiga 2. Mataa bowwoo 3. Dhukkubbii garaa garmalle 4. Ija dura faca'uu/ dimimisuu 5. Sochiin mucaa hir'achuu ykn dhabamuu 6. Ho'ina qaama ol aanaa 7. Kan bira, ibsi……	
208	Rakkoo fayyaa walxaxaan yeroo dahumsa siyi mudate jira?	1. Eyyeen 2. Lakki	2 tari 210
209	Yoo G208f eyyeen tahe, rakkolee yeroo dahumsaa siyi mudatan maal fa'i?	1. Ciniinsuu yeroo dheera narra ture 2. Mucaan ukkamamu 3. Dhiibbaa dhiigaa sababa ulfa irraa dhufu 4. Kan bira, ibsi……..	
210	Haala kamiin deesse?	1. Naguman (ofumaan kara qaama Walhormaata) 2. Meshaadhaan 3. Baqaqsanii hodhuun 4. Kan bira ibsi…….	
211	Yoo G 210f baqaqsanii hodhuun tahe, gosa baqaqsani hodhuu akkamitu siif hojjetame?	1. Hatattamaan rakkoo haala adeemsa ciniinsuu irraa kan ka'e 2. Filannoodhaan rakkoo haala adeemsa ciniinsuu irra osoo hin jiraatin.	
212	Dahumsa booda rakkoo fayyaa walxaxaan siyi muddate jiraa?	1. Eyyen 2. Lakki	2 tari 301

213	Yoo G212f eyyeen tahe, rakkoolee maal fa'i?	1. Dhangala'uu dhiigaa hamaa 2. Ho'ina qaama cimaa 3. Mataa bowwoo cimaa 4. Ija dura faca'uu/dimimisuu 5. Dhukkubbi garaa hamaa 6. Dhangala'aa folii ajaa'aa karaa qama salaa bahu 7. Garmallee diimachuu fi dhukkubbi harmaa 8. Kan bira, ibsi…….	
214	Rakkoo/lee kannenif tarkanfiin ati fudhatte maal?	1. Hatatamaanin gara dhaabata fayya deeme 2. Deesistuu aadaa biran deeme 3. Namoota qoricha aadaa kennan biran deeme 4. Ittuman dhiise 5. Kan bira, ibsi…….	

Kutaa III: Sababoota ogeessa/ootafi dhabbata fayyaa aanaa Amaayyaa, Oromiyaa, Itiyoophiyaa, 2016.

301	Buufanni kun mana kee irraa daqiiqa/sa'aatii meeqa deemsisa?	1. Daqiiqa 30 gadi 2. Daqiiqa 30 hanga sa'aa tokko 3. Sa'aatii tokko oli	
302	Eessatti deesse?	1. Manatti 2. Buufata fayyatti 3. Kella fayyaatti 3. Hospitaala mootummatti 4. Kilinika/ hospital dhuunfatti 5. Kan biraa, ibsi…….	

303	Yeroo deesu eenyutu siyi gargare/siyi deesise?	1. Ogeessa/tti fayyaa 2. Hojjetuu ekisteshinii fayya 3. Aadaan kan deesistu/maatii/ ollaa 4. Kan bira, ibsi……..	2 fi 3 tari 311
304	Yoo Q303f ogeessa/tti fayyaa tahe, dayiisa booda beellamni sif kenname jiraa?	1. Eyyeen 2. Lakki	2 tari 306
305	Yoo G304f eyyee tahe, beelamni kee yoom ture?	1. Sa'aa 24 gaditti 2. Guyyoota 2 -3 keessatti 4. Guyyoota 4-7 keessatti 5. Torbee jahaffatti 6. Kan bira, ibsi……..	
306	Yoo Q303f ogeessa/tti fayyaa tahe, inni/isheen mallattoole rakko fayya walxaxaa dahumsa booda sirratti mul'achuu danda'an sitti himee?	1. Eyyen 2. Lakki	2 tari 308
307	Yoo G306 eyyee tahe, mallatooleen muul'achuu danda'an maal fa'i?	1. Dhangala'uu dhiigaa hamaa 2. Ho'ina qaama cimaa 3. Mataa bowwoo hamaa 4. Ija dura faca'uu/dimimsuu 5. Dhukkubbii garaa hamaa 6. Dhangala'aa folii ajaa'aa karaa qama salaa bahu 7. Harmaa garmallee diimachuu fi dhukkubbuu 8. Kan bira, ibsi……	
308	Yoo Q303f ogeessa/tti fayyaa tahe, inni/isheen mallattoole rakkoo fayya walxaxaa mucaa irratti mul'achuu danda'an sitti himee?	1. Eyyen 2. Lakki	2 tari 310

309	Yoo G303 eyyee tahe, mallattooleen hamoo dahumsa booda mucaarratti mul'achuu danda'an maal faa'i?	1. Ho'ina qaama hamaa 2. Harma haadha hodhuu dadhabuu ykn xiqqachuu 3. Qaamni laafuu 4. Aaduu 5. Harganuu dadhabuu 6. Gogaan qaama addaachuu 7. Kan hodhe/te hunda hooqisiisu Kan bira, ibsi…….	
310	Dayiisa booda sa'aatoota/goyyoota meeqaaf dhaabbata fayyaa turte?		
311	Dahiisa booda namni mana keetti torbee tokko keessatti hordoffi sif godhe jira?	1. Eyyen 2. Lakki	2 tari 313
312	Yoo G311f eyyen tahe, eenyutu hordoffii sif godhe?	1. Ogeessa/tti fayya 2. Hojjettu ekisteshinii fayyaa 3. Deesistuu aadaa 4. Kan biraa, ibsi…….	
313	Hordoffii dahumsa booda torbee tokko keessatti dahumsakee isa darbee irratti goote turte?	1. Eyyen 2. Lakki	
314	Dahumsa kana irratti hordoffii dahumsaa booda erga deesee torbee tokko keessatti goote?	1. Eyyen 2. Lakki	

Kutaa IV: Hubannoo haadhaa fi hudhaalee tajaajila dahumsa boodaa torbee tokko keessattii aanaa Ammayyaa, Oromiyaa, Itiyoophiyaa, 2016.

401	Odeeffannoo tajaajilli hordoffi dahumsa booda torbee tokko keessatti jirachuu isaa qabda?	1. Eyyeen 2. Lakki	
402	Yoo G401f eyyeen tahe, gosti tajaajjill dahumsa booda turban tokko keessatti kennamu kam fa'i?	1. Qoranno qaamaa haadhaf 2. Qorannoo qaamaa mucaaf 3. Karoora qusannoo maatii 4. Talaalli kennuu 5. Mallattoolee hamoo dahumsa boodaa irratti gorsa kennuu 6. Sirna soorata irratti gorsa kennuu 7. Harma hoosisuu irratti gorsa kennuu 8. Kan bira, ibsi……..	
403	Hordoffi dahumsa booda torbee tokko keessatti maalif hin goone?	1. Aadaadhaan dahanii yeroo sana keessatti mana bahuun hin eeyyamamu 2. Hanga handhuurri mucaa bu'utti eeguuf 3. Humna gaha argachuu 4. Ulfichi karooran waan hin taanef 5. Yeroo dhabuu 6. Ijoolee koo nama naf eegu dhabuu 7. Asitti tajaajilicha eeguun yeroo ajjesuudha 8. Odeefannoo dhabuu 9. Ogeesonni fayya waan haala gaariin tajaajilamtoota hin keessumeesinef 10. Kan bira, ibsi…….	

Hirmanna keef baayyee galatoomi!