

**ADDIS ABABA UNIVERISTY FACULTY OF MEDICINE,  
SCHOOL OF PUBLIC HEALTH**

**ASSESSMENT OF FACTORS INFLUENCING UTILIZATION  
OF POSTNATAL CARE IN GONDAR TOWN NORTH WEST  
OF ETHIOPIA.**

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## **DEDICATION**

The paper is dedicated to my husband Dr. Nibret Moges who contribute unreserved support to my success and my children Lidya and Mekdes who scarified their time for my study.

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#### 4. LIST OF ABBEREVATION

<b>ANC</b>	Antenatal care
<b>BF</b>	Breast Feeding.
<b>CBRHW</b>	Community Reproductive Health Workers
<b>DHS</b>	Demography and Health Survey
<b>EDHS</b>	Ethiopia Demography and Health Survey
<b>F/P</b>	Family planning
<b>HIV</b>	Human Immunodeficiency Virus
<b>HMIS</b>	Health Management Information System
<b>ICPD</b>	International Conference on Population and Development.
<b>LFGA</b>	Local family Guidance association of Ethiopia
<b>LAM</b>	Lactation Amenorrhea (Methods of F/P).
<b>MHS</b>	Maternal Health Service
<b>PPS</b>	Probability Proportional to Size
<b>PNC</b>	Post Natal Care
<b>PMTCT</b>	Prevention of Mother to Child Transmission of (HIV/AIDS)
<b>PLWHA</b>	People living with HIV/AIDS

<b>S R S</b>	Simple Random Sampling
<b>TBA</b>	Traditional Birth Attendant
<b>U S A</b>	United States of America
<b>W H O</b>	World Health Organization

## 5. ABSTRACT

### **Introduction:-**

The postnatal period starts an hour after the delivery of the placenta and includes the following six weeks. The postnatal period covers a critical transitional time for a woman, her newborn and her family on a physiological, emotional and social level. More than two third of maternal and new born deaths occur during the postnatal period and many of them develop disabilities The immediate cause of maternal deaths is the absence, inadequacy or underutilization of the health care system.

In Ethiopia Maternal and Neonatal mortality still high and has received significant attention from the government. Routine essential postnatal care can help to reduce mortality and morbidity among mothers and their babies. Postnatal care program is one of the weakest programs among all reproductive health programs of the country, but there is no sufficient research on how to improve the gap for low health service postnatal care utilization.

The purpose of this study is to asses factors influencing utilization of health services for postnatal care during the first six weeks.

**Methods:** - A cross sectional study was conducted from date January to date February 2008. Study subjects were mothers who lived in Gondar urban town for two years and above, and six weeks completed to one year after delivery who were identified by house to house registration from randomly selected twelve centers in Gondar town. Data were collected using structured questionnaire containing variable related to socio-demographic, obstetric characteristics, perception of women about the risk of postnatal period, their belief in having postnatal care and knowledge when to start postnatal care.

**Result:-**Out of five hundred sixty participants, 409(73%) health institution and 151 (27%) homes delivered 28.6% perceived the risk of postnatal period, 81.1% belief on having postnatal care but 81.3% have knowledge on starting time after 45 days 0.5% said immediately where others no need of postnatal care. Out of seventy three percent health institution deliveries 88.3% mothers did not provide an appointment or information to have health service postnatal care. 38.2% utilized health service during post natal period .Main reason for initiation 28.5% maternal and 15% child health problems, 4.2% due to having an appointment the rest 52.3% for vaccination.

**Conclusion:** - Health service postnatal care for mothers and babies was very weak in health institution.

## 6 .INTRODUCTION

The postnatal period starts an hour after the delivery of the placenta and includes the following six weeks. The postpartum period covers a critical transitional time for a woman, her newborn and her family, on a physiological, emotional and social level (1).

Globally more than half million of maternal deaths take place each year from any cause related to or aggravated by the pregnancy. About half of the nearly half 120 million women who give birth each year experience some kind of complication during their pregnancies and between 15 million and 20 million develop disabilities such as severe anemia, incontinence, damage to the reproductive organs or nervous system, chronic pain, and infertility. Also there are seven million neonatal deaths. More than two third of maternal and newborn deaths occur during the postnatal period (2, 3).

In Africa at least 125,000 women and 870,000 new born die in the first week after birth this is mainly when coverage and program are lowest along the continuum of care and the first day is the time of highest risk for both the mother and the baby (4)

Despite the fact that the majority of maternal and newborn deaths occur within the first week of the postnatal period, health care providers across sub-Saharan Africa continue to advise mothers to come back to the facility for a first check-up only after six weeks. This is a visit for survivors (4).

A lack of postnatal care affects the coverage of several essential interventions. This includes healthy home behaviors of neonatal and maternal health and missed

opportunities for providing range of option family planning information/counseling and services including women those are positive for HIV/AIDS (3).

A study showed that only 30% of babies in sub-Saharan Africa are exclusively breastfed and also global data show that only 3-8% of postpartum women want another birth within two

years, and that 40 % of women who say they want to use a contraceptive method in the first year after birth are not doing so (5).

In Ethiopia maternal mortality is 673 deaths per/100,000 live births and neonatal mortality 39/1000live births per year. The national coverage of ANC 28 % delivery service by skilled attendant 6%, Provided postnatal care by health professionals 3.6%, and unmet need of family planning is 34% (6, 7).

According to the World Programme of Action, postnatal care is regarded as one of the most important maternal healthcare services for the prevention of impairments and disabilities resulting from childbirth ( 8).

The country adopted WHO recommended essential routine postpartum care that was adopted by many countries that emphasis, attention should be given during the first 24 hours, one-week, six weeks and six months. However, because the majority of maternal and newborn deaths take place during the first few hours and days after birth, postnatal contacts should begin as early as possible in the postnatal period.

Women should not die in childbirth because the vast majority of maternal deaths can be prevented or reduced if women had access to, or visited maternal health services during pregnancy, childbirth and the first month after delivery (9)

One of the objectives of national policy is improve maternal and child health. One of the strategy of ministry of health of the country is provide integrated maternal, neonatal and child health services.

Routine essential postnatal care can help reduce mortality and morbidity among mothers and their babies. Postnatal care program is one of the weakest programs among all reproductive health programs of the country, but there is no sufficient research on how to improve the gap for low utilization of maternal health care service during postnatal period (4).

Therefore, the study was done to assess the situation of utilization maternal health care service for postnatal care of mothers, babies and to identify factors influencing utilization. It will provide base line information for further research to improve maternal health care service utilization for postnatal care to develop well defined strategies for the improvement of postnatal care.

## **7. LITRATURE REVIEW**

Globally about 600000 deaths take place each year from any cause related to or aggravated by the pregnancy and 300 million women suffer from short- or long-term illnesses related to child birth. Of this 99% of maternal deaths and 7 million infant deaths occur in the developing World. Two third of maternal and 4 million neonatal deaths occur during the postnatal period (1, 2).

Post partum hemorrhage is the most single cause of maternal deaths in the world: it is estimated 150000 maternal deaths Occured annually from it , the majority of this death (88% occur with in 4 hours after delivery (4)

Infection is the second leading cause of maternal mortality world wide. About 10 percent of women who give birth suffer from sepsis, or septicemia caused by an untreated infection during or immediately after childbirth. Sepsis can result from prolonged labor, inappropriate care or unclean practices during delivery (3).

Eclampsia typically occurs in the ante partum or intra partum period. Late-onset postpartum eclampsia is a controversial topic, which recently has been accepted as a true phenomenon. The development of postpartum eclampsia is a rare occurrence, although literature suggests that it is an increasing phenomenon (10).

As study done at an international level on postnatal maternal deaths that compared postnatal death in developing countries and United States showed that in both developing countries and the United States, >60%of maternal deaths occurred in the postnatal period; 45% of postnatal deaths occurred within 1 day of delivery, >65% within 1 week, >80% within 2 weeks.

In developing countries, 80% of postnatal deaths are caused by obstetric factors that occurred within 1 week. It was reported that the first 24 hrs postnatal and the first postnatal week is the highest risk of postnatal deaths, and the risk remains significant until the second week after delivery (9).

Every year in Africa 125,000 maternal death (bleeding account for 34%) 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 (5).

Sepsis and infection claim another 10% of maternal deaths; virtually all during the postnatal period HIV-positive mothers are at greater risk of postnatal maternal death than HIV-negative women and lost to follow up visit from first week of life after delivery(5 )

In Africa among people live with HIV 55% are women .Maternal mortality higher in PLWHA .Mortality among breast feeding HIV + mother higher than formula feeding. As study in Malawi showed that incidence of HIV 3-6/100peryear during post partum period (5).

The large gap in PNC coverage is evident in a recent analysis of Demographic and Health Surveys in 23 African countries. Approximately one-third of women in sub-Saharan Africa give birth in facilities, and no more than 13 percent receive a postnatal care visit within two days of delivery(5)

Family planning is an important missed opportunity in the postnatal period specially the Lactation Amenorrhea Methods. Provision of condom for dual protection against HIV/AIDS as well as pregnancy and information and counseling on option of infant feeding and insertion of an intrauterine contraceptive device within the first 48 hours after childbirth and tubal ligation(5 ).

Short and long-term morbidity affects women's health. A study showed that the most frequently reported postpartum problems are: Infections, Bladder problems including Backache, Frequent headaches, Pelvic pains, Hemorrhoids, Constipation, Depression, anxiety and extreme tiredness, perineal pain, breast problems, anemia, chronic pain, and infertility (3).

Almost all newborn deaths are in developing countries, with the highest number in South Asia and the highest rates in sub-Saharan Africa. Most newborn deaths occur at home, regardless of whether delivery was in the home or in a health care facility, and regardless of whether a skilled attendant was present at birth. More than two thirds of newborn deaths will have occurred by the end of the first week after delivery, with up to one-half of all newborn deaths occurring in the first 24 hours due to lack of post natal care(10).

PNC visits by a health worker help mothers and newborns establish and maintain contact with a number of health services needed in the short and long term. Furthermore, early postnatal care is critical to promote healthy household practices such as exclusive breastfeeding that are key to child health and survival. Early postnatal care services are an opportunity to receive information and support to practice healthy home based care to the woman and her baby (10)

These showed that integrated maternal and newborn postnatal care during the first few days after delivery should be provided to all newborns and their mothers as a best strategy to improve survival of both. Policy and program actions to provide early, integrated postnatal care will inevitably strengthen the linkages between maternal health and child health programs (10).

One study notes that 50 percent of women will have intercourse, often unprotected, by the end of the second month following delivery. Postnatal contraceptive counseling has been effective in preventing repeat pregnancies within a short period after delivery and there is a positive correlation between a postpartum visit and increased contraceptive use a year after delivery. Epidemiological studies have shown increased risks of intrauterine growth retardation: low birth weight and infant mortality to be associated with a short interval between births (11)

Across Africa, policy and programmatic opportunities exist to strengthen PNC, given widespread recent recognition that this is a key gap in the continuum of care. PNC contact maintains continuity of care between maternal and child health services, supporting healthy behaviors that should have been introduced during ANC visits and continued during labor and childbirth. In addition, PNC contact is crucial to ensure a seamless continuum of care from home to hospital (4)

In Ethiopia Maternal and Neonatal mortality still high and has received significant attention from the government. However, the World Health Organization contends that the immediate cause of maternal deaths is the absence, inadequacy or underutilization of the healthcare system (6, 14).

Post natal complications could be reduced through essential preventive routine maternal and neonatal health care services that should be provided for all mothers and newborn babies within six weeks after delivery, but many women and newborn babies do not receive this essential healthcare, yet they need these services following delivery as one of the most important maternal healthcare services for the prevention of morbidity and mortality (5).

It has been estimated that if routine PNC and curative care in the postnatal period reached 90 percent of babies and their mothers, 10 to 27 percent of newborn deaths could be averted. In other words, high PNC coverage could save up to 310,000 newborn lives a year in Africa (5)

From literatures review there are factors influencing postnatal care utilizations such as: - **Socio demographic characteristics of the individual** affect the underlying tendency to seek care. In this regard; good examples are maternal age and parity number which have been examined as determinants of health care use repeatedly. The greater confidence and experience of the older and higher parity women, together with greater responsibilities within the household and for childcare, have been suggested as explanatory factors for their tendency to use services less frequently (15).

Higher socioeconomic groups tend to exhibit patterns of more frequent use of maternal health services than women in the lower socioeconomic groups. Maternal education appears to be important mediator. It has also been shown repeatedly to be positively associated with the utilization of health service for postnatal care (15)

**Low level of knowledge:** A study in Uganda has showed perceived the risk of postnatal period and the benefit of postnatal care is one of the most important for utilization of health service postnatal care. There was a low level of knowledge about postpartum care services among the respondents of two communities. There was lack of awareness about postpartum care and its benefits (15).

**ANC** is an entry point to the mother for having health institution delivery for immediate and continuum postnatal care. A study showed that the odds that a woman who had had inadequate prenatal care would not return for postpartum care were almost three times greater than the odds for a woman who had had adequate prenatal care (odds ratio = 2.8), and also it showed that women did not have skilled attendants during delivery they didn't utilize postnatal care as they had skilled attendant at delivery (16).

**Providing an appointment** or referral from place of delivery for the next postnatal follow up visit: Providing clear information and written appointment on the need of postnatal visit increase postnatal follow up visit. A study showed that t women given an appointment for their postpartum visit were more likely to having had that visit. Giving women appointments for postnatal visits or written or verbal information on maternal and new born health can increase their use of health services (17).

The main influencing factors to use of services were; misconceptions regarding the importance of postpartum care, distance to health facilities, poverty, and health system factors notably; poor facilities lack of essential drugs and poor attitudes of health workers in the effort to improve reproductive health care services (17).

**Culture:** delays in seeking care in the postnatal period often occur because of the restrictions that keep mothers and babies at home the cultural background of the woman. The cultural perspective on the use of maternal health services suggests that medical need is determined not only by the presence of physical disease but also by cultural perception of illness(15)

**Women's decision-making power:** in many parts of Africa is extremely limited, particularly in matters of reproduction and sexuality. Study showed that in many African countries family members often make decisions about maternal care (15).

**Availability of women's time** is also important. In developing countries, women spend more time on their multiple responsibilities for care of children, collecting water or fuel, cooking, cleaning, growing food, and trade than on their own health (15).

**Accessibility of service.**

Accessibility of health services has been shown to be an important determinant of utilization of health services in developing countries. In most rural areas in Africa, one in three women lives more than five kilometers from the nearest health facility, scarcity of vehicles, especially in remote areas, and poor road conditions can make it extremely difficult for women to reach even relatively nearby facilities. Walking is the primary mode of transportation, even for women in labor (15)

In rural Tanzania, for example, 84 percent of women who gave birth at home intended to deliver at a health facility but did not due to distance and lack of transportation. Fees reduce women's use of maternal health services and keep millions of women from having hospital-based deliveries or from seeking care even when complications arise. Even when formal fees are low or nonexistent, there may be informal fees or other costs that pose significant barriers to women's use (15).

### **Quality of postnatal care**

Policy and program actions to provide early, integrated postnatal care will inevitably strengthen the linkages between maternal and child health programs. PNC visits by a health worker help mothers and newborns establish and maintain contact with a number of health services needed in the short and long term. Early postnatal care is critical to promote healthy household practices such as exclusive breastfeeding, keeping hygienic conditions, nutrition and prevent them from harmful traditional practices (19).

Despite the benefits of PNC, most newborns and mothers do not receive postnatal care services from a skilled health care provider during the critical first few days after delivery. In fact, whether women deliver at home or in a facility, postnatal care services are often absent.

Moreover, PNC services, where available, often lack essential elements of care required for the optimum health of the mother and her newborn (19).

Among the major problems that serve as barriers to providing quality maternal health services are chronic shortages in health facilities of adequate staff, equipment, drugs and basic supplies and poorly trained health facility staff, lacking both lifesaving and basic clinical skills. The providers may also be rude, uncaring and do not attend to their duties.

Safe Motherhood contends that poor quality of care is one of the most common reasons why women do not seek care or seek it late (13, 19)

High quality maternal health services must be accessible, affordable, effective, and appropriate for, convenient and acceptable to the women and newborn babies during post natal period who need them. According to a report from Safe Motherhood, the majority of women in developing countries receive almost no postpartum care after delivery (20). Mothers who are expected to go for postnatal services at any health institution of their choice after delivery varies .However, there is great concern about the small number of women coming for early postnatal services(6)

Addressing the gap in PNC coverage and quality requires facility and community actions to reach mothers and babies in the first days after birth .The national post natal care coverage is 3.5% and the Amhara region is 16.2 %( 3,9).

In spite of having availability of health services Gondar town postnatal coverage is still low. Therefore, the factors that cause under-utilization health service for postnatal care should be investigated at community level for possible causes of low utilization of the health service for postnatal care (21).

## **8. OBJECTIVE OF THE STUDY**

### **8.1. General objective**

To assess factors influencing utilization of postnatal care of mothers and babies in Gondar town.

### **8.2. Specific objectives**

1. To assess the perception and attitude of women towards postnatal care
2. To determine utilized health service postnatal care
3. To identify factors influencing utilization of maternal health care service for postnatal care

## **9. METHODOLOGY**

### **9.1. Study design**

A cross sectional study, using quantitative and qualitative data collection methods was employed

### **9.2. Study area**

The study was conducted in Gondar town of North Gondar zone in the Amhara national regional state. North Gondar zone is one of the largest zones in the region occupying wide geographical area. It is the main resettlement, foreign trade and commercial and large scale farming site of the region. Together with the geographic diversification and climatic difference from the very hot to the coldest area of the zone there is a high rate of internal migration of people from place to place.

According t 1994 G.C censuses the total population was 2,088,640(21)

In the Zone there are 16 districts, 282 health facilities (1 referral teaching hospital, 2 district hospitals, 22 health centers and 257 health posts). ANC coverage delivery by skilled attendant and postnatal care in the zone was estimated at 46%, 7.7%, 13.8% respectively.

Gondar, the city of the zone is one of the historical towns in the country located at 741km North West of Addis Ababa and 180km from bahirdar, the capital of Amhara regional state. Gondar town has a population of 264,884, 12 center kebele administrative offices, 3 health centers and one teaching hospital. In spite of the presence of health facilities in the town the postnatal coverage is low (20). The study was conducted from January-February 2008.

### **9.3. Source of population**

Source of population Of the study were all mothers less than one year after delivery in Gondar town.

### **9.4. Study population**

The study populations were mother 6 weeks completed after delivery -1 years at the time of the survey in selected ketenas .This range was selected to get adequate sample size and to obtain` necessary information, type of postnatal care they received.

Selection of the different type of study population was based on the following consideration:-

1. CBHW and TBAS: to obtain information on their previous training, involved in attending delivery, providing PNC or referred mothers and new born babies to health institution for having health service post natal care, information/education to the community about the risk of postnatal period and the advantage of having early postnatal care

2. Husband or partners for having knowledge about the risk of postnatal period , power on decision making, and their help to women and new born babies for having postnatal care.

3. Female who have acceptance by the community for their influence that discourage on not having early PNC cares.

4. Health workers who work in teaching hospital, Health centers to obtain information on availability, methods of postnatal care service delivery, recording and reporting system of PNC and barriers women and new born babies for did not come early to health institution for PNC.

5. District and Zonal health office to assess their efforts on improvement of post natal care and MOH for availability PNC Guide lines and distribution to health institution.

Before the actual data collection all selected women from selected ketenas in twelve centers were registered based on selected criteria, the name of family head, house number, years of living in Gondar town and date of delivery.

### 9.5. Sampling size.

Calculation was done using Epi info statistical software program for two population proportions.

$$n = \frac{\left\{ Z_{\alpha/2} \sqrt{(1+1/r) P(1-p) + z_{\hat{\alpha}} P_1(1-P_1) + P_2(1-P_2)} \right\}^2}{(P_1-P_2)^2}$$

To determine the sample size the following assumption were made.

n= require sample size.

Mothers 6 weeks after delivery to one year estimated 2% of the total population.

ANC is the major factor determines Utilization of maternal health service during postnatal period.

n1 sampling size of ANC attended women and those 6 weeks after delivery to one year .

n2= sample size of none ANC attended women and those 6 weeks after delivery to one year

r=ratio of n1/ n2 for the population allocation ratio: 2

Z<sub>α/2</sub>=1.96 for the standard scale of 95% level of confidence, Z<sub>α</sub> = standard scale of 0.84 corresponding to an 80% of power to detect a difference of (p1-p2) =15%

P1= proportion of postnatal care users among ANC attended women during the last pregnancy =50% (302)

P2= Proportion of postnatal care users among none ANC attended during the last pregnancy=152(35 %).P (pooled population proportion) =  $\frac{p_1+rp_2}{1+r}$

$$1+r$$

To allow for possible non response due to absenteeism or refusal during the actual data collection time we increased the sample size by 10%. Based on the above assumption 454 mothers 6weeks completed after delivery to one year were required for the study as eligible study participants.

## **9.6. Inclusive and exclusive criteria:**

### **9.6.1. Inclusive criteria:**

- ⇒ All consented mothers 6 weeks completed after delivery– 1 year with alive baby
- ⇒ Women, who were mentally and physically capable for interview
- ⇒ Permanent resident of the study area for at least two years
- ⇒ Volunteer participants for the study (mothers, partners, females those have acceptance by the community , TBAS, CBHW health workers worked in hospital, health centers ,district and Zonal health office and family health department from ministry of health ).

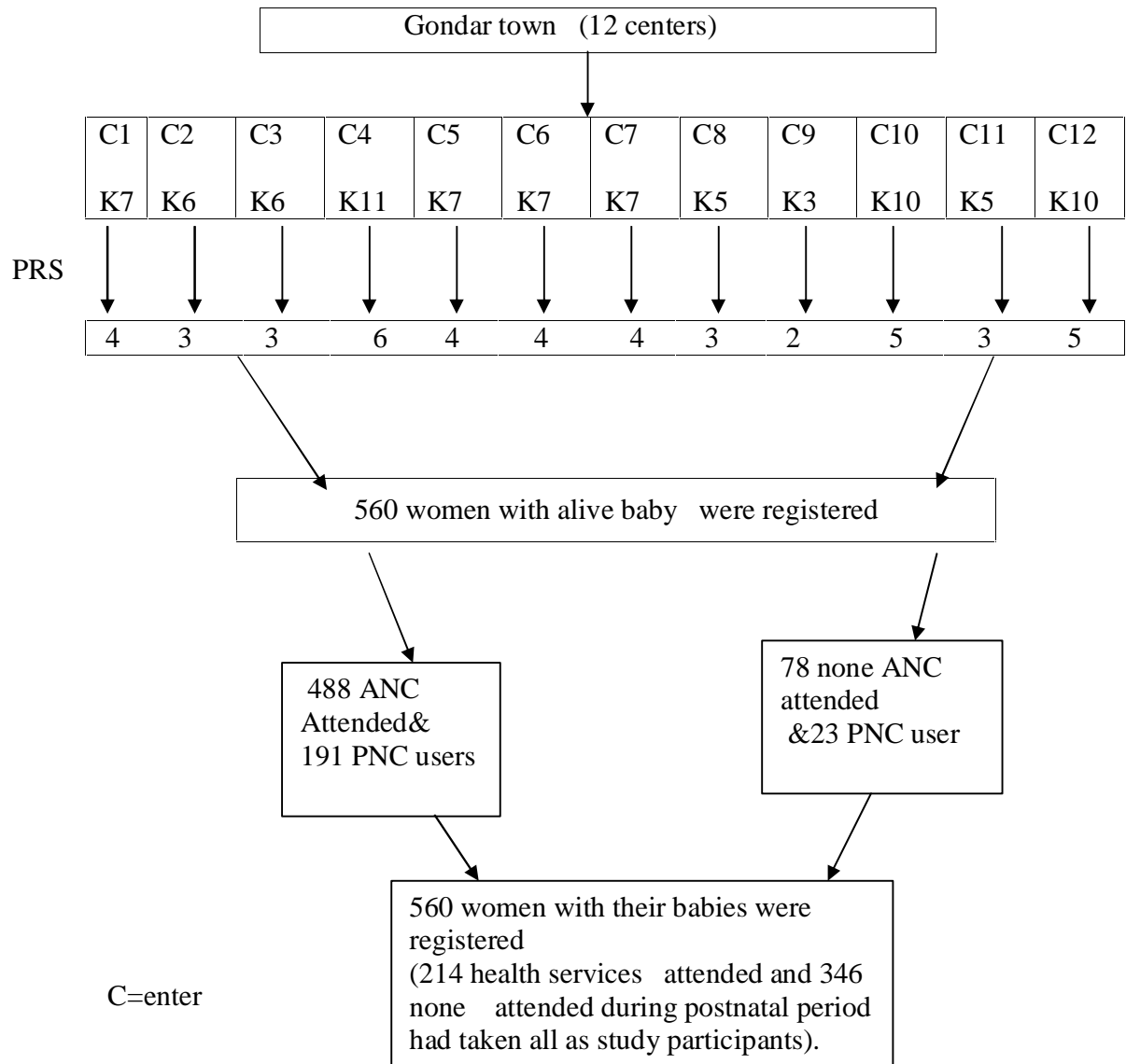
### **9.6.2. Exclusive criteria:**

- ⇒ Women those who lived less than two year in Gondar town.
- ⇒ Women who refused to participate in the study. Involuntary respondents
- ⇒ Women who are mentally and physically not capable for interview.

## **9.7. Sampling procedure**

From all twelve center (20kebele) in the town the number of ketena were listed out and a total of 84 ketenas were identified. by using proportionate sampling methods 46 ketenas were randomly selected from each center kebele. Before the actual data collection all women 6weeks complete to one year after delivery registered in the selected ketena . A total of 560(488 ANC attended and 72 none attended) were registered residing in Gondar town a minimum of 2 years. The calculated sample size was 454, but all registered women were included in the study.

**Figure 1. A Schematic presentation of sampling procedure for quantitative methods**

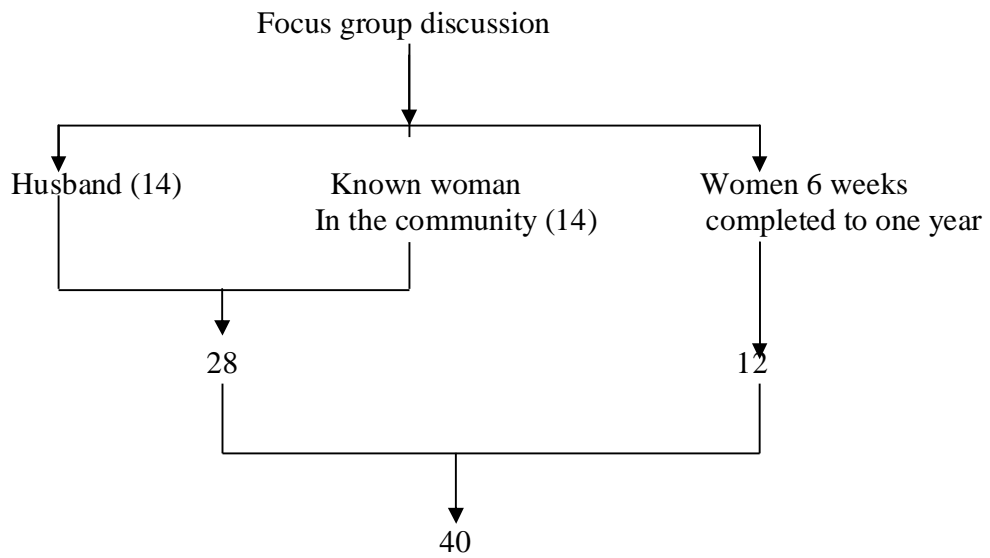


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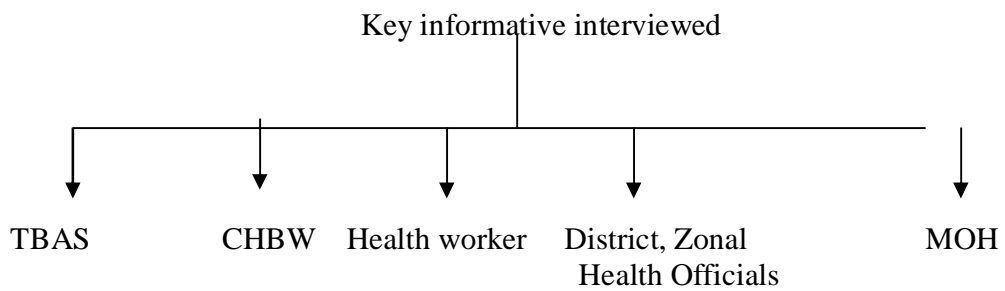
K= ketena

PRS=proportion random sampling

**Figure 2 A Schematic diagram of data collection procedure for qualitative method**



**Figure.2.B Schematic diagram of data collection procedure for qualitative method.**



## **9.8. Data collection procedure**

### **9.8.1 Quantitative.**

Data were collected from the study participant using pre tested structured questionnaire. The questionnaire was adopted from EDHS, previous related master thesis research with reasonable modifications. The questionnaire contains variables on socio-demographic characteristics, obstetrical characteristics, perception of women about the risk of postnatal period and the need of having early PNC, knowledge on place of availability and health service factors related.

The questionnaire was first prepared in English and translated to Amharic then back to English by principal investigators and English fluent speaker. The questionnaire was pre tested on women six weeks completed to one year after delivery in non selected ketena for the study before the start of actual data collection. Pre-tested findings and experience was utilized in modifying and reshaping the questionnaire.

Six female high schools completed from none selected ketenas and two BSc graduated supervisors were recruited from north Gondar health office and Gondar University. Training was given for data collectors and supervisors about the objective of the study, how to fill the questionnaire, the need of keeping privacy and confidentiality during the interview. For the registration and showing the house of the respondents during data collection voluntary community based health workers, people living in the selected ketena were employed.

### **9.8.2 Qualitative**

Study participants for FGD were selected purposively from non selected ketana, of husband of women (2groups), women 6weeks completed after delivery to1 year (2groups), women those have acceptance by the community (2groups), Key informants from TBAS ,CBHW, Health workers (Head of three health centers, Head of obstetric and gynecology department,

Matron, Head nurse of delivery of Gondar University teaching hospital), district, zone health offices and family health department of ministry of health.

During the group discussion the investigator was moderating the discussion and the supervisor was assigned for note taking and discussions were tape recorded

CBHW and TBAS interviewed based on pre listed questionnaire about their previous training on delivery and PNC, their involvement in providing PNC or early referred mother and babies to health institution, information/education to the community about the risk of postnatal period and the advantage of having early postnatal care and factors influencing for not utilized health service PNC.

Health workers also interviewed about availability of trained man power, elements of PNC in health institution based on national guide lines, linkage of health institution with each other and to the community, reporting and recording system and associated influencing factors for not using health services for PNC.

District and zonal health officials were asked for their efforts to improved PNC coverage and their reporting and recording system of postnatal care.

Family health department of Ministry of health also asked about the availability of national guide lines of PNC that should be provided for all mothers and babies.

## **9.9. Supervision and data control procedure**

### **9.9.1 Quantitative .**

The supervisors and the principal investigators supervised the data collection process, during the first registration phase some randomly selected house hold were checked to make sure as all eligible participants registered and data were collected correctly for not missed by data collectors. CBHW and people live in the ketena were employed to show the house holed for its accuracy of registration.

During the actual data collection each questionnaire was reviewed every day by supervisors and principal investigators for completeness and further edition and checked house number with registered one. Further more, 10% of respondents were randomly revisited by principal investigators and supervisors to make sure that data collectors actually met the respondents and made interviews.

### **9.9.2 Dependent variables-**

Utilization of health service for postnatal care with in the firs six weeks after delivery.

### **9.9.3 Independent Variables.**

Socio-demographic variables, obstetrical characteristics of respondents' Knowledge on Postnatal care services, Maternal health care service utilized during the last pregnancy , delivery, Post natal periode ,women and their babies' received the types of health service PNC.

## **9.10. Data processing and analysis-**

The collected data were cleaned. Responses in each question were coded for the simplicity of data entry. SPSS version 11 software program was used for data entry and analysis.

Descriptive statistics are used to determine the frequency of different variables, logistic binary and multiple regressions were applied for crude and adjusted OR 95% CI. Results displayed using tables and diagram.

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### **9.10.1 Operational definition**

**Postnatal period:** The word “postpartum” and” postnatal “are some times used interchangeably,. In this project we use the word “postnatal” according to Western textbook definition starts shortly after the birth of the placenta to six weeks.

**Postnatal care:** - is the assistance given to a mother by health professionals at health institution, as an out reaches health facility program, or home visiting for a period of six weeks from the time of delivery.

**Health service utilization for postnatal care:-** refers in this project defined as mothers and /or babies came to health institution for preventive or curative post natal care services during the first six weeks after having health institution or home delivery.

**Knowledge:-** refers to having awareness about the risk of postnatal period and the importance of postnatal care .

**Appointment:-**Providing verbal or written information for having health institution postnatal care after health institution delivery.

### **9.10.2 Ethical consideration-**

The proposal was reviewed by school of public health and faculty of medicine ethical clearance committee at Addis Ababa University. The survey was commenced after written consent obtained from North Gondar regional and district health bureau. Each respondent were informed about the objective of the study and assurance of confidentiality. Verbal consent was secured from each participant at the end of each interview session, respondents who did not have postnatal care were advised to have health service utilization for having range of option F/P methods, the advantage of completing their vaccination and the need of continuous follow up care for HIV positive mothers and their baby.

## 10. RESULT

Socio -demography characteristics of the respondents.

A total of 560 women from 6weeks completed to one year after delivery were interviewed in this cross-sectional study. All eligible women in the selected samples responded to the questionnaire.

Three hundred fifty five (63.4%) of the respondents were in the age group of 16-25years, with a mean age of  $24.8 \pm 5.0$  years and the 527(94.1%) were from Amhara ethnic group and the remaining 33 (5.9%) were from Tigray and Oromo (Table 1).

Four hundred forty three (79.1%) of the respondents were orthodox Christian, 117(21%) were Muslim, Jewish and protestant. Regarding the marital status of the respondent 462(82.5%) were married and 38(6.8%) were single. With regard to their educational status 175 (31.2%) were unable to write and read, 209(37.4%) attended elementary school and 176 (31.4%) had completed secondary high school and above.

Regarding the respondents' occupation most were house wives 392 (70%) followed by government employee 27(4.8%).One hundred sixty five (29.5%) of the respondents had monthly income  $\geq 500$  Birr per month, while only 56(10%) reported  $<100$  birr per month. The average monthly income was  $471.9 \pm 339.4$  Birr and the mean number of people living in a household was  $3.8 \pm (1.2)$  (Table 1).

**Table 1: Socio-demographic characteristics of respondents in Gondar town, Amhara region, North West, of Ethiopia January\_ February 2008**

<b>Variables</b>	<b>Number(n=560)</b>	<b>percentage</b>
<b>Age of women</b>		
16-25	355	63.4
26-35	183	32.7
36-45	22	3.9
<b>Ethnicity</b>		Mean 24.8± 5.0 years
Amhara	527	94.1
Tigray	30	5.4
other	3	0.5
<b>Religion</b>		
Orthodox	443	79.1
Moslem	100	17.8
others	17	3.1
<b>Marital status</b>		
Married	462	82.5
Single	38	6.8
Divorce	13	5.5
Separated	31	2.4
Others	16	2.8
<b>Education</b>		
Uneducated	175	31.2
Elementary school	209	37.4
Secondary school	148	26.4
12 and above	28	5.0
<b>Occupation</b>		
House wife	392	70.0
Employed	27	4.8
Student	57	10.1
Daily laborer	43	7.7
others	41	7.4
<b>Family income</b>		
>500	165	29.5
101-500	339	60.5
≤ 100	56	10.0
<b>Family size</b>		Mean471.9±339.4Birr
1-2	42	7.5
3-4	379	67.7
≥5	139	24.8
		3.8±(1.2)

### **Obstetric characteristics of the respondents**

Two hundred seventy seven (49.5%) of the respondents gave birth before the age of 20 years and 283 (50.5%) were above 20 years of age when had their first child with mean age at first delivery being  $20.22 \pm 3.37$ . Of all the respondents 21(3.8%) women had 5 or more children. Five hundred thirty nine (96.3%) of the respondents had no neonatal deaths, where as 21(3.8%) had neonatal deaths. Majority of the women 385(68.8%) reported that their last pregnancy was planned, where as 175(31.3%) said there was not planned (Table2).

**Table. 2 Obstetrics characteristics of the respondents in Gondar, Amhara Region, North West of Ethiopia, January- February 2008**

<b>Variables</b>	<b>Number (n=560)</b>	<b>Percentage</b>
<b>Age at 1<sup>st</sup> delivery</b>		49.5
<20 years	277	50.5
≥20 years	283	
<b>Parity</b>		
1	232	41.4
2-4	301	53.8
≥5	25	4.4
<b>Number of children</b>		
1	242	43.2
2-4	297	53.0
≥5	21	3.8
<b>Number of live births</b>		
1	239	43.2
2-4	297	53.0
≥5	21	3.8
<b>Ever had abortion</b>		
No	528	94.3
Yes	32	5.7
<b>Ever had stillbirth</b>		
No	553	98.7
Yes	7	1.3
<b>Ever had neonatal death</b>		
No	539	96.3
Yes	21	3.7
<b>Was the last pregnancy planned?</b>		
Yes	385	68.8
No	175	31.2

### **Respondents' knowledge on postnatal care services**

Among 560 respondents 400 (71.4%) did not perceive susceptibility to dangerous health problems during postnatal period.

Concerning belief of having postnatal care 454 (81.1%) of the mothers believed on having postnatal care (Table 3).

Regarding starting time for postnatal care 455 (81.3%) reported that it should be started after 45 days, while 3 (0.5%) mentioned immediately after delivery, but 102 (18.2%) said no need of postnatal care during post partum period (Table 3).

Two hundred seventy seven (49.5%) respondents knew the availability of postnatal care services but the rest 283 (50.5%) did not know. Four hundred seventeen respondent husbands had positive attitudes towards health service utilization during postnatal period (Table3).

**Table 3: Respondents' knowledge on Postnatal care services, in Gondar town, Amhara Region, North west of Ethiopia January\_ February 2008**

Variables	Number ( n=560)	Percentage
<b>Perceived susceptibility to dangerous health problems</b>		
Yes	160	28.6
No	400	71.4
<b>Belief in the importance of having post natal care</b>		
Yes	454	81.1
No	106	18.6
<b>Knowledge on starting time for post natal care</b>		
Immediately	3	0.5
After 45 days	455	81.3
No need of health service PNC	102	18.2
<b>Knowledge on availability of health Service post natal care.</b>		
yes	277	49.5
No	283	50.5

### **Maternal health care utilized during the last pregnancy and delivery**

Out of the women included in the study 482(86.1%) had attended antenatal care during the last pregnancy. While, 78(13.9%) did not attended (Table3). Regarding their last place of delivery 409(73%) of the respondents were delivered in health institution and the rest 151(27%) at home

Out of four hundred nine health institution deliveries 379 (92.7%) were vaginal deliveries and the rest 30(7.3%) by caesarean section 319 (78.%) stayed in health institution for more than 6 hours after having vaginal deliveries where as 60 (14.7%) were discharged before six hours after delivery. For caesarean section cases the average hospital days were 7.7days.

One hundred fifty one (27%) home deliveries 5(3.3%) were attended by health professionals and 117(77.5%) by untrained TBAS. (Table3)

**Table 4: Maternal health care utilized during the last pregnancy and delivery of women in Gondar town, Amhara region, North west of Ethiopia, January February 2008**

variable	Number ( n=560	Percentage%
<b>ANC Attended</b>		
Yes	482	86.5
No	78	13.9
<b>Place of delivery</b>		
Home delivery	151	27.0
Governmental teaching hospital	345	61.6
Governmental health center	64	11.4
<b>Health facility Mod of delivery</b>		
Vaginal delivery	379	92.7
Caesarean section	30	7.3
<b>Time stayed in health institution</b>		
for vaginal delivery		
>6 hours	319	78.0
<6hours	60	14.7
For caesarean section	30	7.3
<b>Type of delivery assistance among home delivery.</b>		
TT BA's	4	2.6
Untrained TBAS	117	77.5
neighbors	25	16.6
Health worker	5	3.3

## **Utilized of health service during Post natal period of mothers and babies.**

Out of 409 (70%) health institution deliveries those who came to the health institution for having first postnatal services 163 (39.9%) the rest 246(60.1%) did not come to the health facilities.(Table 5).

Regarding home deliveries 51(9.1%) of the women came to health institutes during post natal period, where as, 100(17.9%) did not come (Table 5).

Concerning time of coming for health services during the first week 26(12.1%), second weeks 55(25.7%), third weeks 17(8 %) fourth – six weeks 116(54.2 %) and did not go to health facilities 346(61.8%)(Table 5).

Out of two hundred respondents time spent for PNC 135(24.1%)said short time where as 35(6.4)long time. Concerning availability of organized PNC 168(78.%)said no organized PNC where as the rest said organized postnatal care.

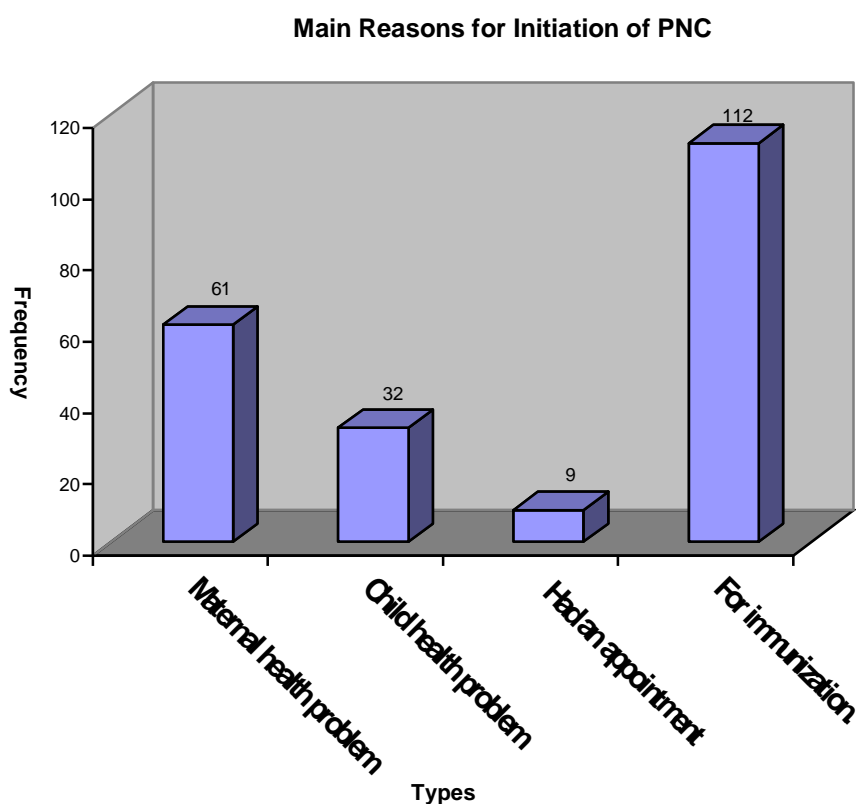
Respondents knowledge on availability of quality of care in health institution:-One hundred twenty nine (60.3) said as there were no quality of care, where as 39(18.2) they did not know about the quality of care.

Concerning closeness to the nearest health institution One hundred eighty seven (33.4%) respondents were said that very close, 280(50%) close and the rest 93(16.6%) far.

**Table 5: Percentage distribution of mothers and babies attended health institutions during post natal period for utilization of postnatal care in Gondar town, Amhara region, North West of Ethiopia January\_ February. 2008**

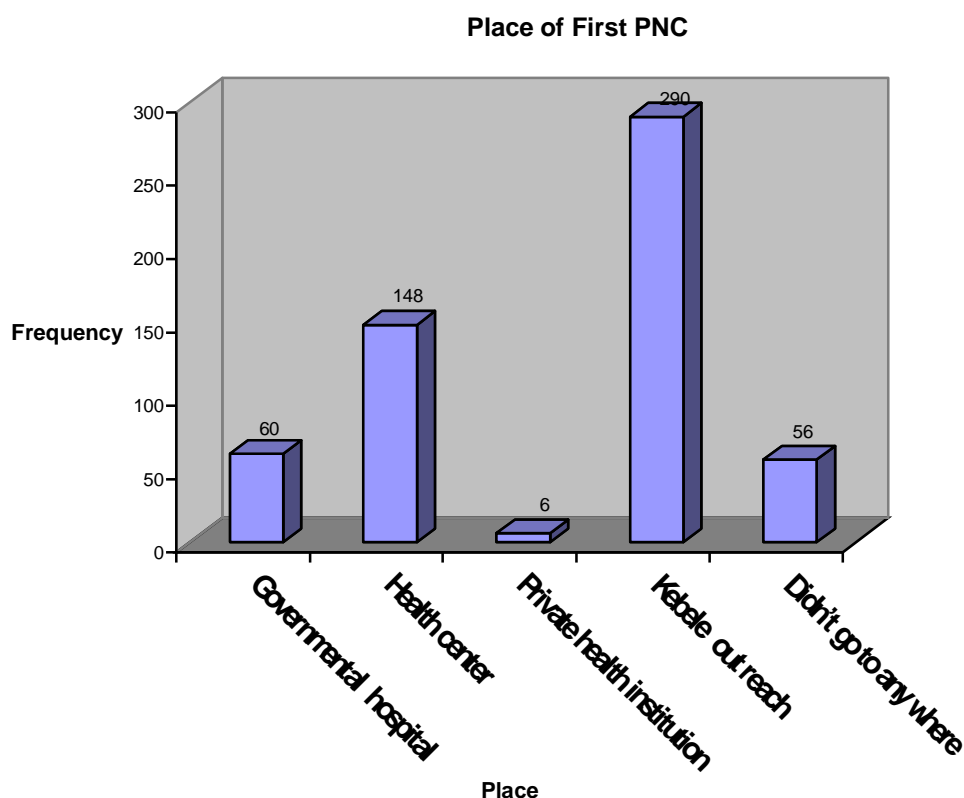
<b>Variables</b>	<b>Number (n=560)</b>	<b>Percentage%</b>
<b>Health institution attended:</b>		
Yes	214	38.2
No	346	61.8
<b>Came to health institution for PNC from place of delivery.</b>		
<b>Govt. hospital</b>		
Yes	137	39.7
No	208	60.3
<b>Govt. health center</b>		
Yes	26	40.6
No	38	59.4
<b>Home</b>		
Yes	51	33.8
No	100	66.2
<b>Time of coming for PN C</b>		
During the first week	26	12.1
During the second weeks	55	25.7
During the third weeks	17	8.0
4-6weeks six weeks	116	54.2
<b>Time spent for PNC</b>		
Short	135	24.1
Long	36	6.4
Medium	43	7.7
<b>Respondents perspective for availability of organized PNC</b>		
Yes	46	21.5
No	168	78.5
<b>Availability of quality of PNC services(mothers perception)</b>		
Yes	46	21.5
No	129	60.3
Not Known	39	18.2
<b>Distance to the nearest health institution</b>		
Very close	187	33.4
Close	280	50.0
Far	93	16.6

Out of two hundred fourteen (38.2%) women attended health services after discharged from the hospital and having home delivery the main reason that initiated them were maternal health problem 61(28.5%), child health problem 32(15%) and for immunization 112 (52.3%)



**Figure 3: Reason for attended health service post natal care in Gondar town, North West of Ethiopia, January- February, 2008**

Regarding to place of postnatal care of mother and babies attended for the first time 214 (38.2%) were in health institution where as 290 (51.8%) at center kebele office for vaccination, private health institution 6 (1.1%) but the rest 56 (10%) did not go to any where



**Figure 4: The place of where mothers and/or babies went to for the first time for PNC during the first six weeks after delivery in Gondar town, North West of Ethiopia January-February, 2008**

**Women and their babies' utilized health service postnatal care during the first six weeks after delivery.**

Concerning first postnatal check up 347(62.0%) were in health institution for the first six hours with their babies for follow up , where as 60( 14.7) health institution and 150( 99.3%) home delivered did not have check up at six hours after delivery, 63(11.3%) respondents were counseled and supported for breast feeding, but 493 (88.8%) did not (Table 6).

Eighty five (15.2%) of respondents received information on range of option F/p methods, where as 475 (84.8%) did not receive. Vitamin A supplementation did not provided to any mothers. Fifty six (10. %) of mothers counseled on home based care and danger sign for them selves and 339(60.5%) had Informed / counseled on the need of having VCT and PMTCT during postnatal period (Table 6).

Four hundred ten (73.2%) of the babies body weight were checked and 498 (88.9%) started their immunization.

Seventy six (13.6%) mothers were counseled about home based care and danger sign for the baby.

Three hundred sixty two (64.6%) were discharged without given an appointment for the next visit 32 (5.7%) appointed after 45 days and 16 (2.9%) were referred to ART, PMTCT for having further investigation and follow up at hospital, 12 (75) were came for follow up visit the rest 4(25%) did not go to the hospitals.

**Table 6: Percentage distribution among women and their babies' utilized health service postnatal care with in the first six weeks after delivery in Gondar town, North West Ethiopia, 2008**

	Number (n=560)	Percentage (%)	
<b>Checked 6 hours after delivery.</b>			
Yes	347	62.0	
No	213	38.0	
<b>Counseled and supported breast feeding</b>			
Yes	63	11.3	
No	497	88.8	
<b>counseled on range of option F/P methods</b>			
Yes	85	15.2	
No	475	84.8	
<b>Counseled on home based care and danger sign of the mother</b>			
Yes	56	10	
No	504	90	
<b>Had Informed/counseled on the need of having VCT,PMTCT during Postnatal</b>			
Yes	339	60.5	
No	221	39.5	
<b>Baby weight Checked,</b>			
Yes	410	73.2	
No	150	26.8	
<b>Started immunization to the baby</b>			
Yes	498	88.9	
No	62	11.1	
<b>Counseled on home based care and danger Sign of the baby.</b>			
yes	76	13.6	
No	484	86.4	
<b>Appointment/ given for having PNC</b>			
After 45 days	32	5.7	
No Appointment	362	88.5	
Referred to PMTCT and ART	16	2.9.	
Came for follow up car	12	75	
Missed for follow up care	4	25	
<b>Types of health problem those mothers developed during postnatal period</b>			
Breast problem	23	4.1	
Fever	57	10.2	
Offensive vaginal discharge	8	1.4	
Head ach and dizziness	10	1.8	
Perineum pain	15	2.7	
caesarean wound infection	3	0.5	
<b>Mothers/babies used traditional healers during postnatal period.</b>			
Yes	39	7.0	38
No	521	93	

**Table 7: Socio-demographic determinants of post natal attendance in Gondar town North West of Ethiopia January – February, 2008.**

Variables	Users (n=214)	Non users (n=346)	Crude OR, 95% CI	Adjusted OR, 95% CI
<b>Years of living in Gondar</b>				
2-10	152	238	1.00	1.00
>10	61	106	1.11(0.76,1.62)	0.76 (0.49,1.2)
<b>Age of women</b>				
16-25	21	37	1.00	1.00
26-35	152	240	1.18 (0.82,1.71))	1.46(0.97,2.20)
36-45	41	69	1.78 (0.68,4.65)	2.38 (0.79,7.13)
<b>Marital status</b>				
Married	181	282	1.00	1.00
Single	33	64	1.25 (0.79,1.97)	0.62 (0.30,1.30)
<b>Education</b>				
Uneducated	64	111	1.00	1.00
Elementary	72	137	1.38(0.90,2.12)	1.33[0.83,2.13)
Secondary and above	78	98	1.51(1.00,2.29)	0.95 (0.57,1.58)
<b>Family income</b>				
1-100	18	38	1.00	1.00
101-499	104	170	0.77 (0.42,1.42)	0.83(0.37,1.87)
≥500	92	138	0.71(0.38,1.32)	0.78(0.33,1.85 }
<b>Occupation</b>				
House wife	153	239	1.00	1.00
mad servant	6	15	1.60(0.61,4.21)	1.42(0.51,3.91)
civil servant	18	9	0.32(0.14,0.73)	0.34(0.14,0.81)
privet owner	8	12	0.96(0.38,2.40)	0.98(0.37,2.58)
student	18	39	1.39(0.77,2.51)	1.71(0.87,3.34)
daily laborer	11	32	1.86(0.91,3.81)	1.84(0.86,3.920)
<b>Religion</b>				
Muslim	32	68	1.00	1.00
Christian	182	278	1.39 (0.88,2.2)	0.73(0.45,1.20)
<b>Household</b>				
1-5	190	316	1.00	1.00
6-10	24	30	0.75 (0.43,1.32)	0.59(0.31,1.16 )

Adjusted for Years of living in Gondar, Age of the Women, Marital status, Education, Family income, Occupation, Religion and House holed with utilization of health service during postnatal period.

Table 8: Obstetric and health service determinants of post natal attendance in GondrTown North West of Ethiopia January- February. 2008.

Variables	Users (n=214)	Non users (n=346)	Crude OR,95% CI	Adjusted OR,95% CI
<b>Parity</b>				
1-2	164	250	1.00	1.00
3-4	41	80	.86 (0.37,1.99)	1.29(0.83,2.03)
5-8	9	16	1.10(0.45,2.70)	0.96(0.4,2.30)
<b>ANC</b>				
No	23	55	1.00	1.00
Yes	191	291	0.64(0.38,1.07)	0.76(0.43,1.35)
<b>Place of delivery</b>				
home	51	100	1:00	1.00
Health institution	163	246	1.74 (0.50,1.10)	1.04(0.58,1.8)
<b>Mod of delivery</b>				
C/S	18	12	1.00	1.00
Vaginal	196	334	2.56 (1.21,5.42)	3.10(1.36,6.86)
<b>Breast feeding</b>				
Yes	14	49	1.00	1.00
No	200	297	0.42 (0.23,0.79)	0.47(0.22,1.92)
<b>Family planning</b>				
Yes	23	62	1.00	1.00
No	191	284	0.55( 0.33,0.92)	0.54(.0.30,1.13)
<b>Counseling on home based care and danger sins for the mother</b>				
Yes	22	34	1.00	1.00
No	192	312	1.05 (0.6,1.81)	1.36 (0.61,2.13)
<b>Immunization</b>				
Yes	192	306	1.00	1.00
No	22	40	1.14 (0.66,1.98)	1.03(0.57,1.84}
<b>Knowledge on starting time of postnatal care.</b>				
After 45 days	208	250	1.00	1.00
No need of having postnatal care	6	96	13.31(5.72,30.99)	0.57(0.01,0.33)

Adjusted for Parity, ANC, Place of delivery, Mode of delivery, Counseling on B/F,F/P, counseling on home based care and danger sign to the mother and babies, Immunization, checked weight of the babies and having knowledge on when to start.

### **Socio-demographic, knowledge and health service determinants factors of postnatal care utilization**

Civil servants were less likely utilized postnatal care than house wife  
(OR 95% CI 0.34(0.14, 0.81)

Women who did not have knowledge on starting time they were less utilized PNC  
(P=0 .04, OR95 %CI. 0.57(0.01, 0.33)

Regarding mode of delivery vaginal delivered women were more likely utilized health service during postnatal period than caesarean section delivered women (P=007, OR 95%3.10(1.36, 6.86) but others had not association with health service utilization during post natal period

## **Focus group discussion and in depth interview of key informants' summary report.**

Sixty-two participants were invited in-group discussion. The participants comprised; two groups six weeks to one year after delivery, two groups of women representing the community and two groups of husbands of women participating in group discussion and also 24 health workers were interviewed from one teaching hospital and three health centers, 5 TBAS and 5 community based health workers.

### **Focus group discussion**

The Group discussion started with general questions about the risk of complication during the postnatal period and the need for early postnatal care. Majority of the participants believed that the postnatal period is not as risky, as pregnancy and delivery, but some of them knew of the risk of bleeding, which is threatening for the local name is Serakian (thief of the life of the woman), however few of them believed that postnatal care in health institution is essential for mothers and their babies, but majority of the participants was unaware of the benefits of early postnatal care. Most participants considered that the best place for post natal care was at kebele center because of the availability of immunization close to the community but the rest suggested other health institutions were better.

### **Women groups and husbands also asked:**

The group discussants were asked about the barriers to the use of postnatal care services. The main reason for low uptake by most of focus group discussants were lack of awareness about the risks in the postnatal period to the life of the mother and babies and of the benefit of having early post natal care. Another reason was that health workers did

not provide an appointment after delivery for having early PNC. Majority of the community knew that the starting time for PNC was after 45 days post delivery. Because of poverty many of the women had not enough money for transportation, payment for delivery services and early postnatal care especially in hospital.

They stated that as there was cultural influence for having early PNC particularly before 10 days post delivery due to fear of devil. Majority of them believed that having PNC is only for the benefit to the babies. All of them were concerned that health centers did not provide delivery services and immediate postnatal care. Instead were referred to hospitals.

One woman also expressed her feeling about immediate PNC provided in hospital, she said that as women in delivery was kept in front of many people, sleeping on the floor immediately after delivery and left without having an appointment, this discouraged utilization of the health service PNC. The type of PNC provided in health institution was little different to that of the out reach immunization program. In health institution the only difference there were examination and treatment for the sick mothers and babies but no other services.

**TBAS:**

Five TBAS were also interviewed as they were reportedly trained to attend delivery and provide PNC or encouraged women to having PNC at the health institution. Majority of them reported that they were not attending delivery due to a lack of training, materials, incentives, and supervision from health workers, although a few were attending delivery and they were reporting to health centers and CBHW. However none provided PNC or encouraged women to have PNC at health institution.

**Community based health workers:**

Communities based health workers also interviewed, all of them said as they had no training for attending delivery and provided PNC and also did not mobilize women to have PNC at health institutions, but majority of them mobilized the community for outreach immunization programme at center kebele, provided condoms and oral contraceptive pills to the community with the help of local FGAE.

### **Health workers:**

Health workers were interviewed about information /counseling during ANC on the advantage of having skilled attendants at delivery and the importance of having early PNC. Majority of them said that they advised them to have health institution delivery but did not counsel in detail about the advantage of having a skilled attendant at delivery, information/counseling about the complication during the postnatal period and the advantage of having early PNC, when to start and where it's available. VCT, PMTCT services were provided in health institution, but only for those coming early at the day of ANC visit due to lack of trained man power. Negative HIV mothers were informed during pregnancy about the need of having postnatal P.M.T.C.T at V.C.T centers.

In teaching hospital; women after delivery stayed longer time than at health centers. Almost all of them had follow up monitoring for the first six hours after having normal delivery. In the health center they were discharged 2-3 hours after delivery.

Regarding the availability of PNC in health institutions almost all of them responded that there were no breast feeding counseling and support, Information/counseling on method mix family planning including (LAM) , provision of vitamin A supplementation, counseling and support, home based care and signs to watch regarding problems for the

mothers and her babies were not provided as a formal activity. This was due to lack of adequate space, trained man power, lack of motivation and unavailability of guidelines of postnatal care.

Checked the baby's weight after delivery, informed mothers to feed breast milk, started or informed where immunization program was available. Health workers especially from hospitals said that, they did not provide information/ appointment to the mothers before discharged after vaginal and/or caesarean section deliveries if they had not health problem of the mothers or the babies due to the unavailability of PNC in hospitals and also they did not referred them to health centers for having the next post natal follow up visit. The hospital reported a total of 2457 vaginal delivery, 286 caesarean section, 398 neonatal admission and 63 neonatal deaths and one maternal death in 1999 (1999E.C annual report) with no Preventive Essential Routine PNC Follow Up Services, but it is one of the static immunization site.

Regarding VCT/PMTCT the hospital accepted HIV positive mothers from health centers for follow-up visits but the majority of them didn't go or didn't come back to the health centers.

Reporting and recording system women and babies stayed longer hours in hospital after delivery they were not registered as postnatal care attendant because of did not provided all elements of PNC but in health center they were registered as first visit attendant postnatal care with out provided recommended postnatal care. In some health center when mothers came for vaccination also, they registered as postnatal care attendant but at an out reach immunization program and hospitals they were not registered.

All the participants forwarded their recommendations the most feasible way to increase health service PNC uptake was to:

- Create awareness in the community about the risk of complication during the postnatal Period and the advantage of having early PNC to ensure the wellbeing of the mothers and their babies.
- Provide training TBAS and CBHWs to motivate and create awareness in the community on the need of having early PNC.
- Provide information and education about the risk of postnatal period and the advantage of having early post natal care during ANC and delivery.
- Create a linkage between hospitals and health centers to reduce work load at hospitals.
- Increase number of trained man power especially midwives at health institutions.
- Increase bed particularly in hospitals and improve materials and supplies for all health Institution.
- Provide in-service training on PNC with clear definitions and guidelines.
- Strengthen or establish PNC at maternity health service particularly at place of delivery.
- Make teaching material available in maternal health services (MHS).
- There is a need of integrating the (MHS) with existing health programs particularly with static and out- reach immunization programs so as not to miss the opportunity to provide necessary care.
- HIV positive mothers and their babies it is better to have follow up visit in health center instead they referred to hospitals.

District health workers said that regarding delivery and PNC that the majority of deliveries took place in the hospital but some of them by untrained TBAS, This was reported by Community health workers but there was not a single PNC report to the

district from the hospital. The district was registered 25 untrained TBAS for providing training about maternal and neonatal health care to those people living in Gondar, but they did not actively encourage to have linkage between hospitals ,health centers and CBHW and /or TBAS.

North Gonder zonal health officials in the department of maternal, neonatal and child health (MNCH) also spoke about their efforts for the improvement of PNC service in the town .They felt maternal and child health did not get much attention. Assigned trained midwives in health centers provided in service training were needed as was that motivated health workers.

Regarding recording and reporting systems majority of them said that as there were no well defined reporting and recording system for PNC developed and distributed by MOH. They have a form that contained only first and second visit data with information and counseling on breast feeding, Family Planning. STI, VCT and PMTCT but no well defined guide lines that contained WHO recommended elements of PNC for the mothers and the babies.

## 11. DISCUSSION

This community based cross sectional study tried to assess factors affecting utilization of health service during the postnatal period. This relates to the routine preventive essential post natal care for the mothers and the babies in Gondar town.

In this study it was learnt that 86.5% ANC attended and 73% health institution delivered women only 38.2% were utilized health services during post period during the first six weeks after delivery. Women and new born babies should get PNC with in the first few hours and days in health institution where there were no community based PNC whether they delivered in health institution or at home.

A study showed that In Africa at least 125,000 women and 870,000 new born die in the first week after birth this is mainly when coverage and program are lowest along the continuum of care and the first day is the time of highest risk for both the mother and the baby (4)

Four hundred (71.4%) women did not perceive the risk of complication during the postnatal period to the life of the mothers and babies as compared to pregnancy and delivery.

This resulted most likely from a lack of information and education of women prior to and during ANC. Creating community awareness about the risk of post natal period and the need of having early post natal care is likely to be the best way to decrease maternal and neonatal mortality and morbidity through developing healthy home based care and early health seeking behavior.

Four hundred eighty two (86percentage) of women ANC attended only 39.6% came to health (29.5% from non-ANC attended, 39.6%) from attended) institution during the postnatal period mainly for vaccination and treatment for their illness. This is evidence that women were not provided adequate information / education during ANC about the risk of complication during the postnatal period and the advantage of having early post natal care, type and place of its availability.

A former study showed that the odds that women who had had inadequate prenatal care would not return for postnatal care were almost three times greater than the odds for a woman who had had adequate prenatal care (odds ratio = 2.8) (14).

This study showed that among 27% home deliveries 20.9% attended by untrained traditional birth attendants compared with three health center deliveries 11.4 %.

As it was reviled from in depth interview of TBAS that found that they have no communications, training, supply of materials, and supervision by health workers from health centers or hospitals. They simply reported the number of deliveries to center kebele CBHW, but they did not participate in motivation for health service post natal care, nor did they provide postnatal care.

From in depth interview results Community based health workers participated in motivating the community to immunize their babies at center kebele level but did not provide information / education about the risk of complication during the postnatal period and the advantage of having health service postnatal care. Community mobilization about

the risk of post natal period and the advantage of having early post natal care is crucial to the life of the mothers and the babies

Providing community based education and health promotion for families to adopt positive household practices and seek care, provide training and having supervision to improve coverage and quality of PNC service.

In this study from two hundred fourteen PNC attendants 43.5% were due to health problem of the mother and babies. Having a health problem increased the likelihood of having a postnatal visit, possibly because curative care is more likely to be accessed than preventive care. A study showed the attendance rate among those with a health problem was 70% compared with 11.8% among those without a problem this difference was dramatic among women not given an appointment for a postnatal visit (23).

Results from health workers showed poor uptake of PNC and suggested due to information lack of up to date training, and work over load. They believed ANC education and information improved postnatal care utilization strategies need to be developed for reaching women as early as possible in their pregnancies and ensuring continuous care (25).

Post natal care is a continuation of from pregnancy and delivery. Earlier study showed that women, who did not have skilled attendants during delivery, did not utilize postnatal care compared to those that had skilled attendants. Women who have skilled attendant at

delivery are more likely to be referred for essential routine postnatal care to herself and her baby.

In this study, 73% of health institution delivered mother and newborn babies stayed more than 6 hours were 78.8%, while others left health institution before six hours mainly from health centers (14).

Mothers and newborn babies must stay at least for 6 hours after delivery where there are shortage of beds and as they lived near by health institution. Other developed countries encouraging women to stay in health institution for 24-72 hours to vaginal delivery and 96 hours for caesarean section deliveries (4)

The majority interviewed health workers the reason of discharged mothers before six hours after delivery without providing preventive essential postnatal care because of they were not considered providing Essential Routine PNC as part of their daily activity due to lack of guide lines or up-to -date training and too much work led to missed opportunities to provide care

Study showed that with-in 23 African countries, approximately one-third of women in sub-Saharan Africa give birth in facilities, and no more than 13 percent receive a postnatal care visit within two days of delivery(5).

A healthy mother and newborn need not be in a hospital. If the birth took place in a health facility, she may stay there for a while, especially if her home is far away and care is difficult to obtain in the home environment. However, the quality of the care is not dependent on the duration of the stay in a health care facility (4).

Concerning counseling and support of B/F only 11.3% were provided while the rest 88.8% of women did not counseled during post natal period this showed that as there was low B/f counseling after delivery and during postnatal cares services routinely. As it is observed B/F counseling mainly provided for the purpose of Integrated Management of Child hood Illness.

A study showed that antenatal breast feeding education and postnatal lactation support, as single interventions based in hospital both significantly improve rates of exclusive breast feeding up to six months after delivery. Postnatal support was marginally more effective than antenatal education. All health care providers who have received appropriate lactation education are in an excellent position to provide the information and support that women need to successfully initiate and maintain breastfeeding (24.25).

This study demonstrated that 31.3% of babies were unplanned and 84.8% women were not

Counseled by health professionals about the range of options F/p including LAM during the postnatal period. This might be due to a lack of knowledge, work over loaded, as it was not considered as part of their activity and responsibility.

A study showed postpartum contraceptive counseling has been effective in preventing repeat pregnancies within a short period after delivery and it has shown that there is a positive correlation between a postpartum visit and increased contraceptive use a year after delivery (26).

This study showed that 88.8%,and 86.4%mothers did not informed/counseled about home based care and danger sign of complication about their health and their babies respectively which would have helped early seeking for health care. Providing adequate information on home based care and for signs of complication encourages early health care seeking behaviors.

Vitamin A supplementation during the postnatal period is significant to the mother and babies but women were not provided vitamin A during postnatal period in three health centers and one teaching hospital. Providing vitamin A especially during the first month after delivery is effective to prevent vitamin deficiency to the baby and to the health of the mothers (4).

Out of f 17% of none TT vaccinated women and who had taken one dose, 12.7% did not take TT vaccine during the first six weeks after delivery. This might be from not going to the health facility, Missed opportunity during post natal period.

The postpartum period is an important opportunity to counsel women, their partners and their families about the decision to carry out an HIV test if the opportunity was missed during pregnancy.

Study in Malawi showed that incidence of HIV 3-6/100peryear during post partum period postnatal care, including early detection and management of complications, is critical for all mothers and newborns. For mothers living with HIV, the postnatal period is particularly crucial for receiving HIV-related services (27.28)

This study showed that 73.2% baby's weight checked while others did not check at all. This may be from lack of skilled attendance at delivery, lack of weighing scale and / or lack of integration of the service with immunization. Identified low birth weight babies during early post natal period is important for early identification of low birth weight babies for extra care and support.

Starting immunization during the post natal period helps to complete immunization on time .In this study 91.4%, babies started immunizations between the dates of delivery to the first six weeks. 20% of babies were started their vaccination at health institution where as others 52% from at center kebele as an out reach immunization program of health centers. It showed that, as there was high coverage of immunization but missed opportunity for the provision of other elements of PNC.

This study showed that 88.5% women after delivery were discharged from the health institution with- out having an appointment for a return visit. Provide verbal or written appointments during the early post natal period increased service uptake.

The interviewee health workers confirmed that they discharged the majority of women with- out giving oral or written appointments and with- out providing preventive essential routine post natal care or adequate information on potential complication due to lack of space, training, and demotivated health workers. However some of them did provide appointments for 45 days. It is likely that those who were not provided an appointment would not come to health institution for having early PNC.

A study done in Any postnatal visit with or without a preset appointment show that women given an appointment for their postpartum visit were more likely to having had

that visit (OR = 6.8, 95% CI 6.2-7.4). In the absence of such an appointment, university education (OR = 3.6, 95% CI 2.6-4.7), information on maternal health (OR = 4.9, 95% CI 4.0-5.8) Giving women appointments for postnatal visits, or written or verbal information (29)

Each postnatal contact should be provided in accordance with the principles of individualized care. Postnatal services should be planned locally to achieve the most efficient and effective service for women and their babies (29).

## 12. STRENGTH AND LIMITATION OF THE STUDY.

### 12.1 Strength of the study

The reliability of the data was maintained by:

- Selection bias was minimized since as it was a community- based study with a probability sampling technique. Similar sex interviewers were used involving non-health workers who were largely unaware of the desired answers.
- Its showed that the type of essential post natal care that women and babies received and health institution postnatal care services delivery , recording and reporting systems
- It is relevant to urban areas where there is access to the health service.
- Further more, qualitative design was used to complement or triangulate the findings.
- It relevant to develop post natal care guide lines and to distribute to health institution.

### 12.2 Limitation of the study

- This study did not include the rural population, which are restricting the scope and relevance.
- As the study included a one year retrospective cross-sectional, the possibility of recall bias and misreporting of events was likely.
- In this study, selected variables that determine maternal health care utilization during the post natal period were investigated, and their importance was determined by compared health service postnatal care service users and none users at a specific point in time. So the results should be interpreted with caution. Since, both dependent and independent variables are determined at one point in time.
- Unavailability of adequate literature.

### 13. CONCLUSION

In conclusion, this study demonstrated that uptake of maternal health provision during the postnatal period was very poor in general during the period (one year) preceding the survey. The most important factors influencing uptake of health services for post natal care were:-

Lack awareness of the women and the community about the risk of complication during the postnatal period and the advantage of having early postnatal care, a lack of knowledge of when to start

The majority of women who attended ANC and delivered in health institutions had no knowledge about the risk of complication in the postnatal period and the advantages of starting post natal care due to lack of information from health service provider and TBAS.

More than half of the women who attended antenatal care were delivered at home and the majority of these deliveries were attended by untrained TBAS. They were not provided information about the risk of complication during the postnatal period and the advantage of having early postnatal care in a health institution. CBHW were the responsible persons in the community for encouraging out- reach immunization but not for health service postnatal care.

This study showed that the focus of health institutions was on ANC, delivery services, child immunization at static site and through out-reach and provided treatment or referred for those seeking medical care during the postnatal period.

Almost all women were not given appointments for postnatal care after having health institution delivery.

The main reasons given by the health all workers for not provided postnatal care services and appointments was too much work, inadequate space, lack of skilled attendants and up-to-date trained staff in the health institutions, inappropriately assigned trained staff, a lack of integration of services, lack of motivation, also guide lines or proper teaching material.

This study revealed that PNC was not being adequately attended to the health service Staff at any level.

Health services had weakness on the health service information delivery and poor training, lack of responsibility, motivation for health workers regarding PNC.

Unavailability of national Gridlines

#### 14. RECOMMENDATION

Provide information and education specifically to the women during ANC explaining the risk of complication during the postnatal period the advantages of having skilled attendants at delivery and the importance of having early post natal care and a focal point to attend to it.

Strengthen /establish PNC at maternity health service particularly at place of delivery and Maternal neonatal and child health services.

Provide written or verbal appointment for having next postnatal follow up care.

provide essential routine postnatal care for all women and babies when they come to health institution for medical care.

Integrate the service with immunization program, to ensure provision and / or referral to health services postnatal care

The hospitals, health centers and the Community need to create linkages to use staff and space more efficiently.

MOH, Regional Zonal and District health officials should take notice of the problem. Developed and distribute postnatal Care guidelines, provide teaching materials about postnatal care to the health institutions.

Assign skilled birth attendants at health institutions and provide in-service training on Routine essential preventive postnatal care.

one-way to increase health service postnatal care uptake is to create awareness of the women and the community about the risk of complication during the postnatal period and

the advantages of having early post natal care for the wellbeing of the mothers and their babies.

Provide training to TBAS and CBHW encourage them to participate in motivation of the community for having PNC.

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## 16. ANNEX

### 1.1 I. Questionnaire (English)

Questionnaire Identification Number \_\_\_\_\_ Region Amhara

Town Gondar kebele \_\_\_\_\_ Ketena \_\_\_\_\_ House  
number \_\_\_\_\_.

Study participant

- Mothers 6 weeks after delivery to < one year who have Postnatal care
- Mothers 6 weeks after delivery to < one year who have not postnatal care.

Hello. My name is \_\_\_\_\_ from Gondar and I am working in research team of Addis Ababa University Medical Faculty, Department of Community health. I am not living in this kebele. We are conducting a study of mothers 6 weeks after delivery to < one year on utilizations of health services for postnatal care during one hour to six weeks from delivery. You are kindly requested to include in the study, which will have importance in improving maternal and child health services utilization during postnatal period. The interview will take about one hour. No information concerning you, as individual will be passed to another individual or institution without your agreement. Your participation is voluntary and you have the right to not participate fully or partially. If you agree to be included in the study I will start my questions by asking general Identification points. Only honest answer would contribute to improvement of health planning.

The study has approval from Addis Ababa University. "May I continue?"

1. Yes, continue Interviewing.
2. No, thank and stop interviewing.

Name of the Interviewer \_\_\_\_\_ . Sign \_\_\_\_\_. Date of interview\_\_\_\_\_.

Name of the supervisor \_\_\_\_\_sing\_\_\_\_\_. Date of interview\_\_\_\_\_

### Questionnaire

Section I Socio demographical characteristics		
1	For how long did you live in Gondar ?	_____.
2	How old are you?	1. _____years 2. Don't know
3	What is the highest level of schooling you have ever attended?	1. Never Attended 2. Only read and write 3.Elementary school 4.Secondary school 5.12 <sup>th</sup> grade and above 6.Others _____ -
4	To which ethnic group do you belongs?	1. Amhara 2. Tigre 3. Gurage 4. Others_____
5	What is your occupation?	1. house wife 2. maid servant 3.civil servant 4.Merchant 5.student 6.others_____

6	What is your religion?	<ol style="list-style-type: none"> <li>1. Orthodox</li> <li>2. Muslim</li> <li>3. protestant</li> <li>4. Catholic</li> <li>5. Others_____</li> </ol>
7	What is your current marital status?	<ol style="list-style-type: none"> <li>1. married</li> <li>2. single</li> <li>3. separated</li> <li>4. divorced</li> <li>5. Cohabiting</li> <li>6. Widowed</li> </ol>
8	What is the number of people who live usually in this house hold?	_____
9	Was there any other person living with you other than your family?	<ol style="list-style-type: none"> <li>1. Yes</li> <li>2. No</li> </ol>
10	If yes who are they?	<ol style="list-style-type: none"> <li>1. Mother in law</li> <li>2. Father in law</li> <li>3. Her mother</li> <li>4. Her father</li> <li>5. Grand father in low</li> <li>6. Grand mother in low</li> <li>7. Other_____</li> </ol>
11	What is the average family income per month?	_____
<b>Section II Past obstetrical characteristics of respondents</b>		
12	How many times have you ever been pregnant?	<ol style="list-style-type: none"> <li>1. _____</li> <li>2. No response</li> </ol>
13	How many children have you had that were born to you?	_____.
14	Number of live births	_____.

15	Number of still birth?	_____
16	Number of neonatal death?	_____
17	Number of miscarried	_____
18	Age at first delivery	_____
19	Did you have ANC in health institution during the last pregnancy?	1.Yes 2.No
20	Did you give blood for HIV testing during pregnancy for the prevention of mother to child transmission of HIV/AIDS?	1.Yes 2.No
21	If you said yes what was the result of your blood test for HIV/AIDS?	1.Positive 2.Negative 3.I don't know
22	How many TT injection did you have taken before the birth of the last baby?	1. One times 2. Two times and above
Section III. Knowledge and attitude towards post natal care(Personal factors)		
23	Did you think as postnatal period was more dangerous to the life of the mothers and their babies than pregnancy and delivery?	1.Yes 2.No
24	Did you belief as a woman and her baby must go to the health facility for postnatal care?	1 Yes 2.No
25	If you said yes when a woman and her baby must go to the health facility for having postnatal care at health institution?	1 Immediately 2 After 45 days 3 Others-----
26	Did you know the availability Of health service postnatal care for you and your babies with in the first six weeks after delivery?	1.Yes 1. No
27	Where did you give birth of your last child?	1 Home (30) 2 Governmental hospital

		3 Governmental health center 4 Health post 5 private health institution 6 Others_____.
28	What was the mode of delivery?	1 Vaginal 2 Caesarean section
29	How long after delivered did you stay in health facility?	1. Hours_____ 2. Days_____ 3. Weeks_____
30	If you delivered at your home who attended the delivery?	1.untrained TBAS 2.Traind traditional birth attendants 3.nieghbours 4.health workers 5. Others_____.
Section IV. Health service factors.		
31	Did the health professionals checked your and the baby's health at six hours after delivery?	1. Yes 2. No
32	Did you have counseled and supported for breast feeding during post natal period?	1. Yes 2. No .
33	Did you counsel on range of option F /P methods during postnatal period?	1. Yes 2. No
34	Had you ever been informed /counseled about the need of having VCT, PMTCT during postnatal period?	1. Yes 2.No
35	Have you given TT injection with in the first six weeks after delivery?	1. Yes 2. No

36	Did you provide VIT A supplementation with in the first month after delivery?	1. Yes 2. No
37	Did the health professional informed / counseled you about home based care and danger sign of your health?	1. Yes 2. No
38	Was the last baby planed or wanted	1. yes 2. No
39	Did the baby's weight checked during post natal period?	1. Yes 2. No
40	Did the baby start his/her immunization during the firs six weeks after delivery?	1. Yes 2.No
41	Did the health professional informed /counseled about home based care and danger sign of the baby?	1.Yes 2. No
42	After how many hours /days did you informed to have the next follow up visit?	1. _____ Hours 2. _____ days 3. _____ Weeks 4. _____ Months 5.No appointment at all
43	Did you have health institution postnatal care after health institution or home delivery?	1. Yes 2. No
44	If say yes when did you go to the health institution for the first postnatal care?	1. With in the first six hours 2. during the first weeks 3. during the second week 4. During the third week

		<ul style="list-style-type: none"> <li>5. During 4-6weeks</li> <li>6. did not go</li> </ul>
45	What was the main reason initiated you for having health service postnatal care?	<ul style="list-style-type: none"> <li>1. Health problem of the mother</li> <li>2. Health problem of the baby</li> <li>3. due to having an appointment for follow up visit</li> <li>4. Others_____</li> </ul>
46	Where did you go for the first postnatal care for you and/or your baby's after having health institution or home delivery?	<ul style="list-style-type: none"> <li>1. To center kebele for out reach immunization program</li> <li>2 Governmental health center</li> <li>3 Governmental hospital</li> <li>4 Private clinic</li> <li>5 Others_____.</li> </ul>
47	How was your husband's attitude to wards having early health institution post natal care?	<ul style="list-style-type: none"> <li>1. Positive</li> <li>2. Negative.</li> </ul>
48	Was the health worker respectful?	<ul style="list-style-type: none"> <li>1. Yes</li> <li>2. No</li> </ul>
49	How long was the time you spent in waiting to get post natal care for your and your baby?	_____
50	Did you think as there were well organized and integrated postnatal care services in the health facilities?	<ul style="list-style-type: none"> <li>1. Yes</li> <li>2. No</li> </ul>
51	What do you feel about the quality of health service postnatal care?	<ul style="list-style-type: none"> <li>1. Good.</li> <li>2. Faire</li> <li>3. Poor</li> </ul>

		4. Did not know
52	How did you rank the behavior of health workers providing postnatal care?	1. Very good 2. Good 3. Faire 4. Bad
53	Did you have confidence on the service provided at that health institution?	1. Yes 2. No
54	How did you feel about the distance from your home to the nearest health institution?	1. very close 2. average 3. Too far
55	How long does it take to travel from your home to the nearest health institution?	_____
56	What health problem did you developed after one hour delivery to six weeks	1. Bleeding 2. Sever head ache 3. Fever 4. Breast problem 5. Urinary problems 6. Offensive vaginal discharge 7. Mood change 8 Others_____
57	Did you go to traditional healer for your and your baby's health?	1. Yes 2. no



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5	?	1. 2. 3. 4. 4. 5. _____
6	?	1. 2. / 3. 4.
11	?	_____
	2	
12	?	3. _____
13	?	4. _____ 5. _____
14	?	6. _____
15	? ?	_____
16	28 ?	1. 2. _____
10	?	1. 2. _____
17	?	3. _____ 4. _____
18	?	5. _____ 6. _____

<b>19</b>	?	_____
<b>20</b>	?	1 2
<b>21</b>	?	1. 2. 3.
<b>22</b>	?	1. 2.

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23	?	1 2
24	?	1. 2.
25	?	1. 2. 45 3. ----- ---
26	?	1. 2.
27	?	1. 2. 3. 4. 5. ----- ---
28	?	1. 2.
29		1. ----- 2. ----- 3. -----
30	?	1. 2. 3. 4. 5. _____

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31		1. 2.
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<b>32</b>	?	1. 2. .
<b>33</b>	?	1. 2.
<b>34</b>	?	1. 2.
<b>35</b>	?	1. 2.
<b>36</b>	?	1. 2.
<b>37</b>	?	1. 2.
<b>38</b>	/ / ?	1. 2.
<b>39</b>	?	1. 2.
<b>40</b>	?	1. 2.
<b>41</b>		1. 2.

	?	
42	?	1. ----- 2. ----- 3. ----- 4. ----- 5.
43	?	1. 2.
44	?	1. 2. 3. 4.        4                        6
45	?	1. 2..        /  3. 4. -----
46	?	1. 2. 3. 4. 5.
47		1. . 2.
48	?	3. . 4.
49	--?	1. 2. 3.
50	?	5. 6.

		7.
51	?	1. 2. 3. 4. -----
52	?	1. 2. 3. 4.
53		1. . 2.
54	?	1. 2. 3.
55	?	-----
56	6 ?	1. 2. 3. 4. 5. 6. 7. 8. 9. 10. ----- -----
57	?	1. . 2.

### **III Focus group discussion and in depth interview guide**

#### Introduction

Good morning and thank you all for coming.

My name is----- . My colleagues near to me is----- . We came from North Gondar health office and Gondar University

Read the following as it is:

“After we conduct some brief introduction, we will be talking about several different issues.

We will be asking you questions about your overall experience with the maternal healthcare services in your locality during postnatal period and questions pertaining to the perception of postnatal period and the need of having health service postnatal care within the first six weeks after delivery and factors influencing utilization of the available health services for early post

natal care. Then, we will conclude the session by asking you for your recommendations on how such program might be implemented in your community in any way in the future.

Would you be willing to participate in the discussion? If yes, proceed, if no, thank and stop the discussion.

Name of the moderator. ----- Sign-----.

(Signature of the moderator certifies that consent has been obtained verbally). Date-----

Time-----.

#### Preparation

Topic; Community perception of postnatal period and utilization of health services for early routine preventive postnatal care

Target audience: Husbands of women six weeks-one year after delivery, Females those have acceptance by the community and women six weeks after delivery to one year from none selected ketenas.

#### Objective of the discussion

- To explore the community understanding about the risk of postnatal period and the advantage of utilization of health service for post natal care in Gondar town
- To assess factors affecting utilization of maternal health care services particularly during early post natal period to the mothers and new born babies.

#### Description of the participants

A total of four focus groups, each comprising a minimum of six and a maximum of eight participants will be Involved.

The selection criteria and the targeted audiences.

Residence women six weeks after delivery – one year, and lived in Gondar 2years and above (2Groups)

Husbands (2 Groups) and females those have acceptance by the community (2groups) in Gondar town and health workers working in NMCH, Community based health workers,TBAS,District and Zonal health official responsible Health workers and Family health department at ministry of health.

#### Description of the focus group

The participant and the facilitator will sit in a circle or around a table for the discussion. The facilitator will begin the session by introducing himself and explain the purpose of the focus group. The focus group meeting will last about 60 to 90 minutes.

#### Potential use of data

The gathering of this information will have an effort to gain further insight about underutilization of maternal health care services among postnatal women and their babies in the urban town.

#### Ground rules

##### Issue of confidentiality

Please be assured that any information collected here is strictly confidential. The staff of research and other

Participants will not directly share the information in a way that would reveal an individual's personal identity.

##### Consent for participation and tape-recording

At this point it is important that we obtain your consent for conducting the session. Understand that this is more for your protection than any thing else.

Read consent form out loud to the group:

“Your remaining in the session indicates that you voluntarily agree to participate in this discussion program.

You have the right to refuse to answer any questions and to end the discussion if you find it necessary to do so. For the sake of accuracy and efficiency, we will take notes and tape recording these sessions, unless any one has any objections.”

##### Role of moderator and note taker

The moderator will be in charge of facilitating the discussion .The moderator will bring the discussion back to the topic at hand should it go beyond the main issues. The moderator will not give any indication (verbal or physical) that would encourage certain types of comments or discourage other types of comments.

In short, the moderator will guide the discussion when necessary, with carefully not to lead the discussion. It is our role to facilitate, but your role to tell us what you think. The note taker will have the sole responsibility of capturing the sessions accurately as possible. This will include

not only participants' responses, but also nonverbal actions, physical environment, atmosphere of the session, as well as other vital characteristics of the session.

#### Importance of total group

In this group everybody should feel free to talk. Each and every opinion is important and wanted. It is very important that all the people in the group get a chance to express their opinions.

#### Agreement to disagree

In this group there is no right or wrong answers. Everybody should express the opinions or attitude pertinent to him or her. When you express your opinions you are encouraged to be honest in your views of the perception the risk of postnatal period and the advantage of having early postnatal care.

#### FGD topic guide

##### Theme 1. Introduction

At this point, we would like to ask you to introduce yourself to the rest of the group.

Let us start with the research team (Name, age, education status) and each of you please tell me your name, how long you have lived in this area and your job.

##### Theme 2. Warm up questions

1. Next we would like to hear a little about your experience or knowledge about postnatal complications

1.2. Who can tell us about postnatal care services?

1.3. Who would like to tell us dangerous health problems immediately after delivery?

1.4 What are the consequences?

1.5 What are the prevention methods?

Probes 1. Would you explain further?

2. Would you give me an example?

3. Has any one else had similar experience?

4. Is there any thing else?

##### Theme 2. Postnatal period related risk

2. Now we would like to ask you specific questions about health problems related postnatal period.

2.1. Do you think as all women and new born babies must go to health institution for having post natal care services with in few hours, days after delivery? 1. Yes 2.NO, why?

2.2. Where do you think is the best place for postnatal care? Why?

What are the advantages?

Probes 1. Would you explain further?

2. Would you give me an example?

3. Has any one else had similar experience?

4. Is there any thing else?

3. What are the primary reasons for postnatal women with their babies not attending health institution with in the first few hours after delivery?

4. What are the advantages and disadvantages?

Probes 1. Would you explain further?

2. Would you give me an example?

3. Has any one else had similar experience?

4. Is there any thing else?

5."I don't understand."

4. What are the primary reasons postnatal women should attend health services during postnatal period?

5. What are the advantages and disadvantages?

Probes 1. Would you explain further?

2. Would you give me an example?

3. Has any one else had similar experience?

4. Is there any thing else?

5."I don't understand."

6. What is your opinion about improvement of health service utilization during postnatal period?

Probe 1. Would you explain more?

2. Would you give me an example?

3. Anyone else similar experiences

4. Is there anything else?

5."I don't understand."

### Ending questions

Are there any issues, questions, comments that you would like to raise or points to you wanted to add?

### Depth interview guide

#### **Pat I questionnaire for ANC health workers:-**

1. Were all pregnant women informed about the advantage of having skilled attendant at delivery for immediate post natal care during ANC in health institution? 1. Yes 2.No
2. Did all ANC attendant women informed about the risk of postnatal period and the advantage of having postnatal care in health institution? 1 .Yes 2.No
3. Did they informed when to start post natal care? 1. Yes 2.No
4. Did they inform when it is available of postnatal care to the mother and to the baby?  
1Yes 2.No.
5. Did all ANC attended women receive VCT for PMTCT? 1. Yes 2.No Why?

#### Pat I questionnaire for delivery attended health workers:-

6. After having health institution delivery for how long women and their babies stayed in health institution for normal delivery? 1.  $\leq 6$  hours 2.  $\geq 6$ hours.
7. Were all delivered mothers provided breast feeding counseling and support before they discharged from the health institution? 1. Yes 2 No
8. Did they informed counseled about the range of option F/P methods including Lactational amenorrhea methods? 1. Yes 2.No
9. Did women provide VCT for PMTCT? 1. Yes 2.No.
- 10 Where HIV Positive mothers and their babies have follow up care during postnatal period?
11. Did they provide Vit A? 1. Yes 2.No
12. Were they provided counseling on home based care to the mothers and babies? 1.Yes 2. No
13. Were they informed counseled on danger sign of health problems to the mother and babies for seeking medical help? 1. Yes 2.No
14. Did the babies weight checked after delivery? 1. Yes 2 No
- 15 .Were the baby started Immunization or referred? 1. Yes 2.No

#### Part III: Questionnaire Community based health workers:-

1. Were you participating in providing information to the community about the danger of postnatal period and the need of having postnatal care? 1. Yes 2. No
2. Did you have linkage with health centers, District health office or hospitals?  
1. Yes 2.No
3. Did you attend home delivery? 1. Yes 2.No

Part IV: Questionnaire to Traditional Birth Attendants:-

- 1: Have you been trained on attending home delivery? 1. Yes 2. No
2. Did you have linkage with health centers, District health office or hospitals? 1. Yes ,2.No
3. Did you attend home delivery? 1. Yes 2.No

Part V: Questionnaire District and Zonal health office for their efforts for improvement of post natal care

Part VI: Questionnaire for family health department for developed national Guideline and distribution to the health institutions?

I would like to thank you for your participation. I also want to restate that what you have shared with us is confidential. No part of our discussion that includes names or other identifying information will be used in any reports, displays or other publicly accessible media

coming from this research. Finally, I want to provide you with chance to ask any questions that you might have about this research. Do you have any questions for me?

#### **4. Recommended Preventive Essential postnatal care**

A care that should be given to all mothers and newborn babies during postnatal period it consists preventive essential routine postnatal care to all mothers and babies during postnatal period.

##### **Essential routine PNC for all mothers**

- Assess and check for bleeding, check temperature
- Support breastfeeding, checking the breasts to prevent mastitis
- Manage anemia, promote nutrition and insecticide treated bednets, give vitamin A supplementation
- Complete tetanus toxoid immunization, if required
- Provide counseling and a range of options for family planning
- Refer for complications such as bleeding, infections, or postnatal depression

- Counsel on danger signs and home care (4, 5)

**Essential routine PNC for all newborns**

- Assess for danger signs, measure and record weight, and check temperature and feeding
- Support optimal feeding practices, particularly exclusive breastfeeding
- Promote hygiene and good skin, eye, and cord care
- Ensure warmth by delaying the baby's first bath to after the first 24 hours, practicing skin-to-skin care, and putting a hat on the baby
- Encourage and facilitate birth registration
- Refer for routine immunizations
- Counsel on danger signs and home care(4,5)

**Extra care for low birth weight or small babies and those born to HIV- infected mothers.**

- Identify the small baby
- Assess for danger signs and manage or refer as appropriate
- Provide extra support for breastfeeding, including expressing milk and cup feeding, if needed
- Pay extra attention to warmth promotion, such as skin-to-skin care or Kangaroo Mother Care
- Ensure early identification and rapid referral of babies who are unable to breastfeed or accept expressed breast milk
- Provide extra care for babies whose mothers are HIV-positive, particularly for feeding support (4, 5).

**Declaration**

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

Name: Mulunesh Abuhay

Signature: \_\_\_\_\_

Date: June, 2008

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

Name: Dr. Meseganaw Fentahun (MD, MPH. PHD)

Signature: \_\_\_\_\_

Date: \_\_\_\_\_