

**ASSESSMENT OF COMPREHENSIVE POSTNATAL CARE  
SERVICE UTILIZATION AND ASSOCIATED FACTORS  
DURING DISCHARGE AT THREE TEACHING HOSPITALS,  
ADDIS ABABA, ETHIOPIA: A CROSS SECTIONAL STUDY;  
2021**



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Gynecology Department**

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**A research thesis submitted in Partial Fulfillment of the requirements for  
Specialty in Obstetrics and Gynecology**

**October, 2021**

**Addis Ababa, Ethiopia**

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**Place of Submission: Obstetrics and Gynecology Department, School of  
Medicine Addis Ababa University**

**October, 2021  
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# Approval Sheet

## Addis Ababa University

### College of Health Sciences, School of Medicine, Department of Obstetrics and Gynecology, Postgraduate Program

I, Dr. Ferhia Basha, a fourth year Obstetrics and Gynecology Resident declare that this thesis is my original work in partial fulfillment of the requirement for Specialty in Obstetrics and Gynecology. This work has not been previously done and the thesis contains no material previously published or written by another person except where due reference is made in itself.

Ferhia Basha (MD)

\_\_\_\_\_

\_\_\_\_\_

Principal investigator

Signature

Date

We have undersigned and certify that we have read and here by recommend for acceptance of this research thesis entitled “**Assessment of Comprehensive Postnatal Care Service Utilization and Associated Factors during Discharge at three teaching Hospitals, Addis Ababa, Ethiopia**” to department of Obstetrics and Gynecology, Addis Ababa University under our guidance from its inception up to in its current format and that it can be submitted for final approval in partial fulfillment to the Degree of Specialty in Obstetrics and Gynecology.

Dr. Ahmed Abdella (Associate Professor of Obstetrics and Gynecology)

Signature \_\_\_\_\_

Date \_\_\_\_\_

Dr. Yitbarek Fantahun (Assistant Professor of Obstetrics and Gynecology)

Signature \_\_\_\_\_

Date \_\_\_\_\_

As a member of the MSC research open defense examination, I certify that I have read and evaluated the thesis prepared by Ferhia Basha (MD), and examined the candidate. I recommend that the thesis be accepted as fulfilling the thesis requirements for the Specialty certificate in Obstetrics and Gynecology.

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Examiner

Signature

Date

## **Dedication**

To my beloved family especially my dear father.

## **Acknowledgement**

First I would like to express my gratitude to my advisors Dr. Ahmed Abdella and Dr. Yitbarek Fantahun for their valuable advice, guidance and support in writing this thesis.

I also thank Addis Ababa University College of Medicine and Health Sciences for their cooperative support in supplying with necessary documents for the research writing.

Last but not least, I would like to thank my family and friends for their assistance in writing and organizing this research paper.

Ferhia Basha, MD

## Acronyms and Abbreviations

ANC	Antenatal Care
CD	Cesarean Delivery
CI	Confidence Interval
CPNC	Comprehensive Postnatal Care
CRC	Compassionate Respectful and Caring
EDHS	Ethiopian Demographic and Health Survey
FMoH	Federal Ministry of Health
FP	Family Planning
HSTP	Health Sector Transformation Plan
MMR	Maternal Mortality Ratio
PNC	Postnatal Care
PNP	Postnatal Period
PpM	Postpartum Mother
SD	Standard Deviation
SPSS	Statistical Package for Social Sciences
SVD	Spontaneous Vaginal Delivery
WHO	World Health Organization

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## Abstract

**Background** – Comprehensive postnatal care (CPNC) includes full assessment of physical, social and psychological well-being determining the health and survival of the mother and her newborn. Ethiopia is one of the low income countries with high maternal and neonatal mortality and morbidity and low utilization of postnatal care (PNC) services. The inconsistent transition from inpatient to outpatient may end up in missed opportunities to counsel on various healthy behaviors and behaviors with long term health risks and manage postpartum problems early to prevent presenting late with severe complications and even death of the mother and her newborn.

**Objectives** - Assessing CPNC service utilization and associated factors among postpartum women during discharge at 3 teaching hospitals to identify gaps and recommend areas for actions to be undertaken to improve quality of care.

**Methods** - An institution based cross-sectional study was conducted in three teaching hospitals in Addis Ababa, Ethiopia. Medical records and pretested structured questionnaire for interviewing postpartum mothers were used to collect data and convenience sampling method was used to select among postpartum mothers at three teaching hospitals. The collected data was entered and analyzed by Statistical package for social sciences (SPSS) version 25.

**Results** – The study participants were 398. The overall comprehensive postnatal care utilization of all components was 0. Factors that affect comprehensive postnatal care utilization were educational level, ANC, time of information about comprehensive post-natal care utilization, mode of delivery and length of hospital stay. Those who delivered via CD had twice the likelihood of getting good counseling services.

**Conclusion and recommendations** – CPNC utilization according to this study is very low. It is recommended that all postpartum women at any educational level should be informed about postnatal care and those informed during pregnancy are more likely to get full package of the postnatal care and therefore encouraging further effort at the antenatal care services. Additional effort is needed on counseling messages and measures have to be taken at each step to develop minimal standard of quality of care, quality indicators and pre-discharge checklist to avoid too early discharges prior to completion of the care.

**Key Words:** Comprehensive Postnatal care, Teaching Hospitals

# **1. Introduction**

## **1.1. Background**

The postnatal period (PNP) is the time beginning immediately following the delivery of the placenta and extending through the six weeks (42 days) of birth. This period represents a critical phase in determining the health and survival of the mother and her newborn (1). The wellbeing and chance of staying free of morbidity or mortality are much dependent upon the care given during pregnancy, delivery, and most importantly after delivery, the time when many maternal and neonatal deaths take place.

Most maternal and infant deaths occur in the first month after birth: approximately two-thirds of all maternal deaths occur in the PNP (2, 3). Almost half of postnatal maternal deaths occur within the first 24 hours (4) and 66% occur during the first week (5). In 2013, 2.8 million newborns died in their first month of life, 1 million of these newborns died on the first day (4, 6). Neonates account for an increasing share of child deaths, reaching almost half (45%) of the burden of under-five mortality (4). Around the world, the maternal mortality ratio (MMR) has decreased from 380 to 210 per 100,000 live births between 2000 and 2013 with almost all (99%) occurring in developing countries (7).

In low income countries, almost 40% of women experience complications after delivery and an estimated 15% develop potentially life-threatening problems (8). Sub-Saharan Africa had the highest MMR at 500 maternal deaths per 100,000 live births (7). Ethiopia, one of the countries in the sub-Saharan Africa, is among the six countries that contribute to approximately 50% of the maternal deaths worldwide (9). Ethiopia has a MMR of 412 per 100,000 live births according to Ethiopian Demographic and Health Survey (EDHS) done in 2016 from 673 per 100,000 live births in 2005 and an infant mortality rate of 48 per 1000 live births. Millions of women and children who survive birth suffer from pregnancy related injuries, infections, diseases and disabilities, often with lifelong consequences (10).

Postnatal care (PNC) reaches few women and newborns: worldwide less than half of women receive a PNC visit within 2 days of childbirth (11). In Ethiopia, maternal health service utilization is very low in general and PNC in particular (10). A study done found that among

women age 15-49 giving birth in the 2 years before the survey, 17% had a postnatal check during the first 2 days after birth. Four in five women (81%) did not receive a postnatal check. Among women who had a PNC during the first 2 days after birth, only 25% were informed about danger signs of maternal health after delivery. Eighty percent were informed about heavy vaginal bleeding, 57% about fever, 30% about smelly vaginal bleeding, and 9% about depression (10).

Differences by women's background characteristics are pronounced. Women age 20-34, first order births, mothers who delivered in a health facility, urban mothers, those residing in Addis Ababa, mothers with secondary education or higher, and those in the highest wealth quintile were most likely to have received a PNC in the first two days after childbirth (10).

Postpartum care is not a single encounter but an ongoing process with services and support tailored to each woman's individual needs (12). PNC service, using the World Health Organization (WHO) recommendations endorsed by many institutions, includes four visits: within 24 hours of birth, two to three days, six to seven days, and at six weeks. Low birth weight (LBW) infants, as well as HIV-positive mothers, require an extra two or three visits (13). Components of PNC include assessment of maternal and neonatal health, family planning and sexuality, nutrition and supplements, management of complications, mental health, chronic medical illnesses, subsequent visits and link to well women care services where available (12).

Maternal healthcare service utilization is important for the improvement of both maternal and child health (14). Most of the deaths and conditions are preventable as scientific evidence indicates that approximately 80% of maternal deaths could be averted if women had access to essential maternity and basic healthcare services (15). In spite of proven benefits of PNC on maternal and neonatal health, most newborns and mothers do not receive quality care from a skilled healthcare provider during the first few days after delivery when compared to rates before and during childbirth; thus, this is the most neglected period (13, 16).

Even though there is no single, simple, straightforward intervention that will significantly decrease maternal mortality, several studies have shown that majority of these maternal and neonatal problems could be reduced if women receive appropriate PNC (17-19). Comprehensive postnatal care may help end preventable deaths, improve health outcomes, strengthen community-based health systems, address gender and equity issues, and emphasize respectful

and women-centered maternity care (20). Strategies to improve quality and achieve equitable use of PNC should be selected to maximize population-level results in low-resource settings like ours (13).

## **1.2. Statement of the Problem**

Considerable progress has been made globally in improving maternal health with little to no improvements in the sub Saharan Africa. In Ethiopia, the maternal and neonatal mortality is high with limited scope and quality of PNC contributing in part.

The inconsistent transition from inpatient to outpatient leaves many women navigating independently and possibly presenting late with complications, behavior with long term health risks and even death (21, 22). In addition lack of appropriate care during PNP may end up in missed opportunities to various healthy behaviors benefiting the mother and her newborn (2, 16).

## **1.3. Significance of the Study**

Despite the fact that PNC is critical for improvement of maternal and child health, socio-demographic characteristics and health factors influencing its provision are not well understood. It is therefore critical to investigate the factors that deter mothers from utilizing CPNC services, as this would aid in devising strategies to improve the coverage, hence the need to conduct a study in order to critically establish the factors associated with the gap.

Studies on factors associated with utilization of CPNC are few with no published studies especially at institutional level in Ethiopia. It is also my expectation that findings generated from this study will contribute to understand the level and factors that influence utilization of PNC and recommend possible solutions especially at the current COVID-19 pandemic where utilization of maternity health services is expected to decrease. Moreover the data obtained from this study can be used by any interested organization working in this area.

In light of this, the study is designed to assess extent of CPNC service and factors associated with its utilization among postpartum women during discharge at 3 teaching hospitals of Addis Ababa University (AAU) in Addis Ababa, Ethiopia.

## **2. Literature Review**

Health care services during pregnancy and after delivery are important for the survival and wellbeing of both the mother and the infant. Skilled care during pregnancy, childbirth, and the postpartum period is critical in reducing maternal and neonatal morbidity and mortality. The PNP is specially a critical period for women and her infant where women adapt to multiple physical, social and psychological changes recovering from childbirth and taking additional responsibility of her new born (23).

As highlighted in the 2015-16 Health Sector Transformation Plan (HSTP), maternal and newborn health are priorities for the government of Ethiopia (24). The key components of the HSTP are delivery at a health facility, with skilled medical attention and hygienic conditions; reductions in complications and infections during labor and delivery; timely postnatal care that treats complications from delivery; and education of the mother on care for herself and her infant. The goal of the reproductive health program is to reduce the maternal mortality ratio to 199 maternal deaths per 100,000 live births and the neonatal mortality rate to 10 deaths per 1,000 live births by 2020 (24).

The level of PNC in Ethiopia is low. The 2019 EDHS found that among women age 15-49 giving birth in the 5 years before the survey, only 34% of postpartum women and only 35% of newborns had a postnatal check within the first 2 days after birth (25).

There are several factors that contribute to lack of appropriate PNC. Women's socio-demographic characteristics like age, marital status, educational level, household wealth and residence play the major role. The characteristics of care environment like delivery facility type, level of delivery attendant, length of facility stay, breast feeding initiation and ANC contacts in pregnancy also have shown significant association. Obstetric and neonatal risk factors also play a part (26-30).

### **Knowledge on PNC**

Several studies revealed that respondent's knowledge about PNC services is an important predictor of PNC utilization (31-33).

A study in an urban city in Zambia among 268 postpartum women showed that only 18.7% respondents had knowledge on PNC (34). In another study done in Asella 74.2% of postpartum women heard about PNC and 72.7% used the service (35). Those who were informed about the postpartum problems, in a research done in Bench Maji, were about nine times more likely to attend PNC (30). In a survey done among 1690 women in Tigray only 132 (8%) obtained PNC. Women who did not receive PNC reported lack of awareness of the services and those who received the services reported that they were aware of the service prior to the birth of their child (27). An increasing trend of knowledge score on PNC services was observed with increase in age group, educational level and parity in a research done in Eritrea (36).

## **2.1. Impact of Socio-demographic Characteristics on PNC**

Impact of socio-demographic characteristics on PNC is immense of which education and residence play an important role. Level of education was one of the factors statistically associated with postnatal service uptake in several studies (26, 27, 35, 37). Women were more likely to receive PNC if they had greater than a secondary education (27). The percentage of newborn check-ups within the first 2 days increases with education: 7% of babies born to women with no education received a postnatal check-up, compared with 52% of babies born to women with more than secondary education (10).

Women were more likely to receive postnatal services if they lived in an urban area (10, 27). Forty-five percent of urban women received a postnatal check-up within 2 days compared to 13% of rural women. The proportion of women who received postnatal check-ups in the 2 days after delivery varies widely by region, from a low of 9% in Oromiya to a high of 55% in Addis Ababa. Newborns born to urban women are more likely than those born to rural women to receive a check-up within the first 2 days after birth (37% and 10% respectively). The percentage of newborn check-ups within the first 2 days increases with wealth quintile (10). Residence close to a health facility (<5km) are significantly associated with better postnatal care utilization. Regarding occupation, women who were private employees and business women were more likely to utilize PNC services compared to house wives (33).

Uptake of PNC was significantly associated with older age in a study done in Malawi (28). Another study done in Fiche shows higher service attendance among mother whose age is above 19 years (38). Contrary to this, mothers with younger age were more likely to use PNC services

according to a study in Jimma (32). Single mothers were less likely to utilize postnatal care services than those mothers who are married and live together (31). Women who had history of one pregnancy were more likely to utilize the service compared to women who had history of four and above pregnancies (33, 37). The most frequent reasons for not obtaining PNC on a research done in Gonder was lack of guardians for children care among others (39).

Traditions and community norms also play a role as a major factors associated with low utilization of postpartum services in 62.8% of postpartum women according to a study in Zambia (29, 38, 40).

## **2.2. Impact of Characteristics of the Care Environment on PNC**

Studies show that comprehensiveness of facilities that provide PNC to include provision of ANC and immunization facilities increases the scope of care. Women who delivered in a health facility were much more likely to receive a postnatal health check within 2 days of delivery than those who delivered elsewhere (42% versus 2% respectively) (10).

According to a research done in Bench Maji and Fiche 77.8% and 53% of participants respectively attended health institution only for child immunization (30, 38). Timely first ANC visit, uptake of recommended number of ANC visits, receiving the adequate number of tetanus injections, and a planned pregnancy is associated with increased uptake of PNC services (27, 28, 30, and 35). Appointment for postnatal care showed better proportion of postnatal care use (32, 35).

Factors found to affect delivery of PNC education in a study done in Kenya were lack of standard postnatal education guidelines, language barrier, lack of individualized postnatal care, poor communication, inadequately trained or hostile attendants, workload versus staffing and duration of hospital stay (40, 41).

The physical presence and availability of professional support was seen to alleviate maternal concerns, especially for first time mothers. Participants in a study done in Australia showed that women generally valued staying in hospital for the length of time they felt they needed above all other factors (42).

Health care facilities with compassionate, respectful and caring (CRC) health professionals have improved provision of quality health care (43).

### 2.3. Impact of Obstetric and Neonatal Risks on PNC

Obstetric and neonatal risks are seen to be associated with PNC service utilization in several studies. According to a study done in North Shoa among 510 postpartum women mode of delivery and number of children were the factors statistically associated with complete postnatal service uptake (26). Women were more likely to receive postnatal services if they delivered by cesarean section (27, 28). PpMs experiencing obstetric complication during pregnancy were more likely to utilize postnatal care services (32).

### 2.4. Quality Assessment

There should be minimum standard for quality of care. In any health facility there should be a check and balance system where the system is progressively assessed, problems identified and appropriate measures taken which are available, applicable and promising interventions based on recommendations. (44)

Individualized risk assessment with extra care for vulnerable mothers in all families can have a positive influence on maternal and neonatal health and breastfeeding. The reduction of hospital stay should go hand in hand with carefully described discharge criteria. (45)

WHO recommends the use of pre-discharge checklist for completion of the postpartum care to the mother and her newborn. (13)

According to a study done in Belgium to assess the quality of postnatal care, they allocated indicators to seven critical care domains in postnatal care: client-focused care, mother, baby, family, patient-education, breastfeeding and continuity of care. (44)

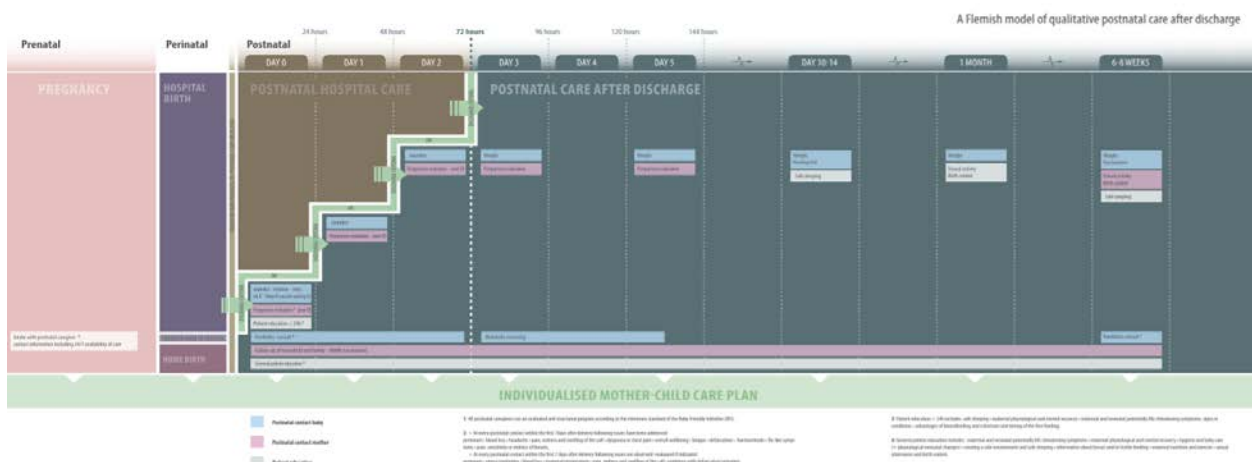


Figure 1. A model of qualitative postnatal care at and after discharge

### **3. Study Objectives**

#### **3.1. General Objective**

- To assess comprehensive postnatal care (CPNC) service utilization and associated factors among postpartum women during discharge at the three teaching hospitals of AAU, Addis Ababa, Ethiopia

#### **3.2. Specific Objective**

1. To assess the extent of CPNC service utilization at the three teaching hospitals
2. To determine socio-demographic and reproductive characteristics of postpartum women affecting CPNC service utilization
3. To describe characteristics of the health care providers affecting CPNC service utilization

### **4. Methods and Materials**

#### **4.1. Study Design**

Institution based cross-sectional study design with quantitative approach was used. This study design was selected to have the whole picture of the extent of CPNC service utilization at three teaching hospitals and go a step further with analysis of factors associated with the utilization of the service.

#### **4.2. Study Area and Period**

The study area was postnatal wards at three teaching hospitals in Addis Ababa, namely Tikur Anbessa Specialized hospital (TASH), Zewditu Memorial Hospital (ZMH), and Gandhi Memorial Hospital (GMH).

Addis Ababa is the capital city of Ethiopia, a country in the horn of Africa. The capital city holds 527 kilometers of area and is at an elevation of 2,355 meters above sea level. Addis Ababa's 2020 population is estimated at 4,793,699 according to United Nations World Urbanization Prospects (42). Regarding medical service, currently the city has more than 41 hospitals, 28 health centers, 35 health posts and more than 500 clinics. There are more than 12 public and more than 25 private hospitals in the city. Of the total 12 public hospitals, 3 of them are selected by convenience and included in the study. Tikur Anbessa Specialized Hospital is the largest

referral and teaching hospital in the country and is managed by Addis Ababa University, while the rest two are under Addis Ababa Health Bureau. All of the selected hospitals give antepartum, intrapartum and postpartum care including cesarean delivery service for 24 hours of a day. The average number of delivery per month over a year at TASH, ZMH and GMH is 481, 447 and 928 respectively.

The study was conducted from August 2020 to June 2021.

### **4.3. Source Population**

The source population was postpartum women at postnatal wards in three teaching hospitals.

### **4.4. Study Population**

The study population was postpartum women at postnatal wards in three teaching hospitals who were subject to the inclusion and exclusion criteria and were available for study.

### **4.5. Study Sample**

The study sample was sample taken from the study population.

### **4.6. Inclusion and Exclusion Criteria**

➤ Inclusion criteria included:-

- Reproductive age group women 15-49 years of age
- Delivery at the three teaching hospitals of AAU
- Postpartum women who were willing to be part of the study

➤ Exclusion criteria includes:-

- Postpartum women transferred to other facilities
- Critically ill mothers

### **4.7. Sample Size Determination**

To determine the sample size, single proportion formula was used.

$$n = \frac{(Z\alpha/2)^2 p(1-p)}{d^2}$$

Where: n = desired sample size

$z = z$  value at 95% confidence interval (CI)

$p =$  prevalence of comprehensive postnatal care

$d =$  margin of error

The Z value at 95% CI is 1.96. There are no prevalence studies on extent of CPNC service utilization at discharge in Addis Ababa so I took  $p$  value of 50%. The tolerated margin of error is 5%. Therefore  $p=0.5$ ,  $1-p=0.5$ ,  $d= 0.05$

$$n = \frac{(1.96)^2(0.5)(0.5)}{(0.05)^2} = 384$$

Adding 10% of the sample size for contingency or non-response made the final sample size 423 women.

#### **4.8. Sampling Method**

Sampling method at each hospital was convenience sampling and data collection was done over 2 months proportionate to the work load. The number of mothers included in the study is distributed among the 3TH proportional to the number of deliveries at each site as 90 in TASH, 115 in ZMH and 193 in GMH.

#### **4.9. Data Collection Method**

The sources of information were log books, medical records and interviews with postpartum women. A structured questionnaire (Annexed) was used for quantitative study. The variables in the questionnaire were identified by reviewing similar studies (26-43), Federal Ministry of Health (FMOH) (46), WHO quality assessment tool (16) and guidelines prepared on PNC of the mother and newborn (13).

The questionnaire was translated from English to Amharic, a language familiar to most Ethiopians. Five percent of the sample size was pretested and redundant questions were removed. More over questions difficult to understand for the interviewee were identified and simplified.

After consent was taken from the study participants (postpartum women), data on socio demographic and reproductive characteristics and information on characteristics of health care providers who treated them was collected by interview using the questionnaire. Most of the obstetric characteristics were taken from the clinical records and log books. Data extraction from available records and interview was undertaken upon discharge and after information on the purpose of the study was presented.

The data collectors were three first degree midwives from another health care facility. To ensure the quality of data, the data collectors were trained on the objective and relevance of procedures of data collection techniques and the whole contents of the questionnaire.

One on one conversation with appropriate personal protective equipment and appropriate measures for COVID 19 was taken to prevent patient and data collector's risk of acquisition and further spread of the disease to the community at large.

#### **4.10. Data Quality Control Measures**

I used standard tools to device the Questionnaire. The data was collected with at most care to insure consistency, accuracy and good data handling. Data collectors were trained and questionnaire was pretested.

#### **4.11. Plan for Data Processing and Analysis**

I entered and analyzed the data using SPSS version 25. I performed univariate analysis such as proportions, percentages, ratios, frequency distributions and appropriate graphic presentations, measures of central tendency and measures of dispersion for describing data. Bivariate analysis using bivariate logistic regression was done to see the crude association between the independent and dependent variable.

Finally, the multivariate analysis using multiple logistic regression technique was used to control confounding variables.

#### **4.12. Variables**

The independent and dependent variables that will be used are mentioned as follows:

- i. Independent variables

- Socio-demographic and reproductive characteristics: Age, marital status, education, occupation, residence, income, parity of postpartum mothers
  - Index pregnancy events: Multiple birth, mode of delivery, child's birth weight and sex, maternal obstetric complications, neonatal complications, maternal comorbidities, ANC contacts, Tetanus Toxoid vaccination during pregnancy
  - Characteristics of the health care environment: place of delivery in the Hospital, length of facility stay, time of delivery, number of deliveries on the same day, caring, respectful and compassionate health professionals, level of education of the delivery attendant, individualized PNC, continuum of care, workload and staffing, presence of standard guidelines for PNC management
- ii. Dependent variable
- Extent of CPNC service utilization

#### **4.13. Operational Definitions**

The components for assessment of CPNC service utilization were taken from PNC pre-discharge checklist developed by WHO (13) and CPNC service utilization is considered when all the components are utilized.

##### 1. Counseled on maternal and neonatal danger signs

###### Maternal danger signs

- Heavy vaginal bleeding
- Severe headache
- Visual disturbance
- Severe abdominal pain
- Disorientation
- Fever
- Foul smelling vaginal discharge
- Unexplained pain in chest or leg
- Breathing difficulty
- Vomiting

###### Newborn danger signs

- Hypothermia
- Feeding poorly or refusing
- Fever
- Fast breathing

- Convulsion
  - Too sleepy
  - Yellowish discoloration of eyes or skin
  - Pus in eye
2. Counseled on healthy eating and given iron supplements  
Counseling on healthy eating means information provided on all of the following with the postpartum women.
    - More fluids
    - Fruits and vegetables
    - Dairy products
    - High protein diet (like meat, fish, egg, beans)
  3. Has breast fed and can breast feed and is counseled on exclusive breast feeding for 6 months
  4. Has started to use contraceptives, has plan to start using or is referred to family planning follow-up
  5. Counseled on signs of postpartum depression  
Counseling on signs of postpartum depression refers to discussing on all of the following points.
    - Low spirits
    - Not enjoying the things she usually enjoys
    - Feeling tired
    - Not able to concentrate
  6. Counseled on hygiene
  7. Postpartum woman has passed urine prior to discharge
  8. Maternal and neonatal vital signs taken and normal  
Maternal vital sign every 6 hourly.  
Neonatal vital sign is taken and normal at discharge.
  9. Tested for HIV and syphilis and managed based on results
  10. Newborn care is given (eye care, cord care, vitamin K)
  11. Neonate has passed urine and stool
  12. Given appointment for the next PNC visit
  13. Given appointment or referred to nearby health facility for neonatal vaccination

14. Completed treatment for complication if present

15. Postpartum woman with chronic illness is linked to the appropriate clinic and given appointment

Compassionate, respectful and caring (CRC) health professionals are those health workers serving patients with courtesy and respect, those who listen carefully to the patient's concerns and explain in an understandable way.

#### **4.14. Ethical Considerations**

Then permission to undertake the study was obtained from obstetrics and gynecology department research and publication committee (DRPC), Addis Ababa University. All participants were informed about the research "Information sheet" (annexed), their question addressed, and then written consent was taken before initiating data collection

#### **4.15. Plan for Dissemination of Results**

The result of the study will be submitted to obstetrics and gynecology department, School of Medicine, Addis Ababa University as a research paper and published as journal. It will be published in a medical journal.

## 5. Results

### 5.1. Socio-demographic Characteristics of Study Participants

Among the calculated sample size of this study of 423 participants 398 responded making a response rate of 94.1%. Almost half of the participants were from GMH (n=193, 48.5%) as depicted on figure 1. Sixty one percent (n=243) of the participants were in the age group of 25-34 years with mean age of 27.3 ( $\pm 4.8$  SD). Almost all are married (n= 384, 96.5%) and two-third of the participants (n=252, 63.3%) were housewives and 1/3<sup>rd</sup> of the participants' (n=145, 36.4%) monthly income was 3201-5250 ETB. Those who had no education were 6.3% (n=25), those who finished primary school are 42.7% (n=170) and those who had college and above education are 12.6% (n=50). The socio-demographic characteristics are summarized in Table 1.

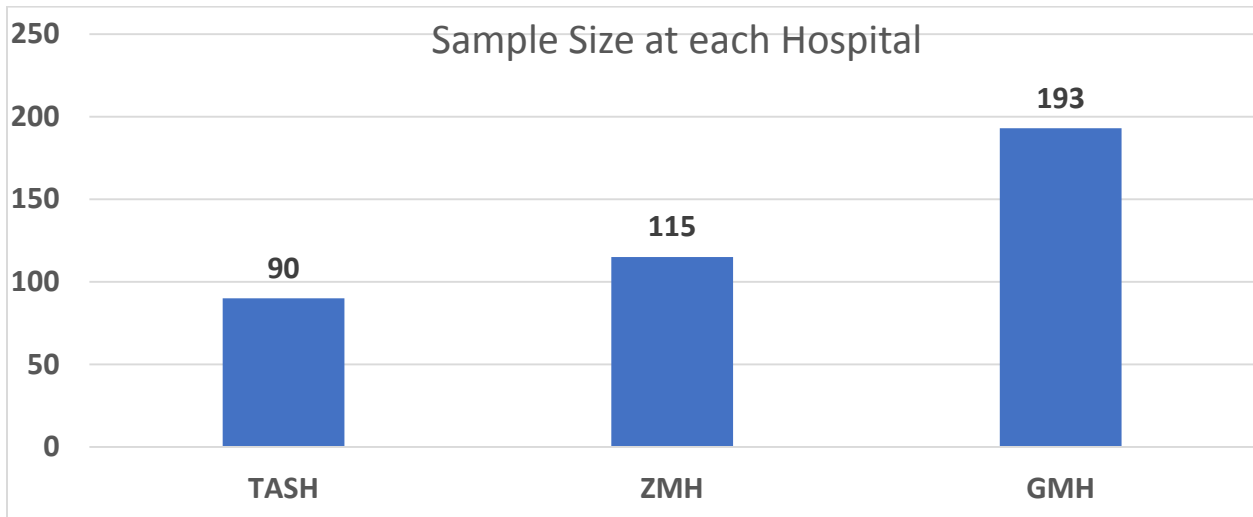


Figure 1. Sample size at three teaching hospitals

*Table 1. The socio-demographic characteristics of study participants on comprehensive postnatal care service in three teaching hospital of Addis Ababa University, Ethiopia, 2021*

<b>Variable</b>	<b>Frequency</b>	<b>Percent</b>
<b>Study area</b>		
TASH	90	22.6
ZMH	115	28.9
GMH	193	48.5
<b>Age of study participants</b>		
≤24	113	28.4
25-34	243	61
≥35	42	10.6
<b>Marital status of study participant</b>		
Married	384	96.5
Unmarried	14	3.5
<b>Education status of study participants</b>		
No education	25	6.3
Primary	170	42.7
Secondary	153	38.4
Collage and above	50	12.6
<b>Occupation of study participant</b>		
House wife	252	63.3
Daily laborer	16	4.0
Merchant	8	2.0
Government employee	45	11.3
Private employee	77	19.3
<b>Monthly salary</b>		
≤1650	37	9.3
1651-3200	105	26.4
3201-5250	145	36.4
5250-7800	81	20.4
≥7801	30	7.5

## 5.2. Obstetric Characteristics of Study Participants

Half of the study participants (n=201, 50.5%) had 2-4 children. Most of the participants (n=394, 99%) had ANC during the current pregnancy and most of these ANC (n=335, 85%) were in health center. Half of them (n=199, 50.5%) had their first contact in the second trimester of pregnancy and 59.8% (n=236) of the participants had more than five ANC contacts. Most (n=211, 53.1%) of the respondents were delivered via CD. Singleton pregnancies accounted 97.5% (n=388) of the cases and 59.5% (n=237) were male sex and 85.2% (n=339) of newborns had normal birth weight at delivery. Obstetric characteristics of study participants is mentioned in Table 2.

*Table 2. The obstetric characteristics of the study participants on CPNC service in three teaching hospital of Addis Ababa University, Ethiopia, 2021*

Variable	Frequency	Percent
<b>Number of children including the current</b>		
One	184	46.2
Two to four	201	50.5
Five and above	13	3.3
<b>Utilization of ANC Service</b>		
Yes	394	99.0
No	4	1.0
<b>Place of ANC Service</b>		
Government Hospital	51	12.9
Health Center	335	85
Private Hospital	8	2.1
<b>Trimester of starting ANC</b>		
First trimester	165	41.5
Second trimester	199	50.0
Third trimester	30	7.5
<b>Number of ANC visit</b>		
No visit	4	1
One visit	10	2.5
2-4 visit	148	37.6
Five and above	236	59.8
<b>Mode of delivery</b>		
SVD	174	43.7
Instrumental	13	3.3
Cesarean section	211	53.1
<b>Place of delivery</b>		
Labor ward	187	47.0
Operation room	211	53.0
<b>Pregnancy characteristics</b>		
Singleton	388	97.5
Twin	10	2.5
<b>Sex of neonate</b>		
Male	237	59.5
Female	161	40.5
<b>Weight of baby</b>		
Low birth weight	46	11.6
Normal birth weight	339	85.2
Macrosomia	13	3.3

### 5.3. Information on Characteristics of Health Care Providers

Almost all of the participants reported that health workers treated them with courtesy and respect (n=391, 98.2%), listen to them carefully (n=393, 98.7%), understood health provider advice and explanation (n=386, 97%) and had a possibility of asking question for the provider (n=245, 61.6%) Three-fourth (n=310, 78.1%) of the participants were counseled individually and 69.3% (n=276) of the study participants had their delivery attended by gynecology and obstetrics resident doctor. (Table 3)

Among the study participants 86.9% (n=346) had support for breast feeding by health care provider.

*Table 3. The information on characteristics of health provider by study participants*

Variable	Frequency	Percent
Health Professional Treat with Courtesy and Respect	391	98.2
Health Professional Listen carefully	393	98.7
Understanding Health Professionals Explanation	386	97.0
Possibility of asking questions to health provider	245	61.6
<b>Type of Counseling</b>		
Individual	311	78.1
Group	87	21.9
Feel no redundancy in the information transmitted	351	88.2
Good Management of Pain in Post-Partum	236	59.3
<b>Level of Health Professional Delivery Attended</b>		
Midwife	122	30.7
Resident	276	69.3
Health provider support at breast feeding	346	86.9
<b>Source of most information about Breastfeeding</b>		
ANC provider	115	28.9
Maternal and child health provider at ward	217	54.5
Friend	36	9.0
Family	30	7.5
<b>Frequency of Breastfeeding advice by health provider</b>		
Breast feeding on schedule	316	79.4
Breast feeding on demand	82	20.6

## 5.4 Comprehensive postnatal care service

The overall CPNC utilization was 0%. There was no postpartum woman who is given all the maternal and neonatal components of the care. The details of the utilized care are as shown in Table 4.

*Table 4. Comprehensive post natal care utilization assessment of each component*

No.	Components of Comprehensive post natal care	Frequency	Percentage
<b>Maternal Components</b>			
1.	Counceled on all maternal danger signs	4	1
2.	Nutritional Counseling	132	33.2
3.	Given or prescribed iron supplements	222	55.8
4.	Mother has started breast feeding	372	93.5
5.	Counceled on EBF	355	89.2
6.	Counseling on Family planning	165	41.5
7.	Linked to family planning followup	71	21.4
8.	Counceled on signs of post partum depression	1	0.2
9.	Counceled on hygiene	217	54.5
10.	Mother has passed urine	300	75.4
11.	Maternal vital signs taken and normal	145	36.9
12.	Given appointment for the next PNC visit	384	96.5
13.	Completed treatment for complication if present	56	96.6
14.	Linked to appropriate clinic if chronic illness	19	86.4
15.	Tested for HIV and managed based on result	397	99.7
16.	Tested for syphilis and and managed based on result	393	98.7
<b>Neonatal Components</b>			
1.	Counceled on all neonatal danger signs	1	0.2
2.	Neonatal vital signs taken at discharge	55	13.8
3.	Newborn care is given	386	97
4.	Newborn has passed urine	309	75.7
5.	Newborn has passed stool	299	73.3
6.	Given or linked for neonatal vaccination	394	96.5

The mean and median of components utilized among the 16 items of comprehensive maternal care were 10 each. The mode and range were 9 and 10 respectively. None of the participants got all 16 componenets. The most commonly utilized items by 85% or more of the participans were: initiating breast feeding (n=372, 93.5%), counseling of BF (n=355, 89.2%), having PNC appointment (n=384, 96.5), linking with appropriate chronic illness clinics (n=19, 86.4%), HIV (n=397, 99.7%) and syphilis (n=393, 98.7%) testing and treatment. (*Table 5*)

*Table 5. Comprehensive post natal care utilization assessment of maternal components based on number of questions answered*

Number of correctly answered questions (16)	Frequency	Percent
5.00	7	1.8
6.00	8	2.0
7.00	11	2.8
8.00	51	12.8
9.00	112	28.1
10.00	70	17.6
11.00	60	15.1
12.00	48	12.1
13.00	24	6.0
14.00	5	1.3
15.00	2	.5
Total	398	100.0

The mean, median and mode of components utilized among the 6 items of comprehensive newborn care were all the same being 4 with a ranging of 4. None of the participants got all 6 componenets. (Table 6)

*Table 6. Comprehensive post natal care utilization assessment of newborn components*

Number of correctly answered questions (6)	Frequency	Percent
1.00	8	2.0
2.00	69	
3.00	42	10.6
4.00	248	62.3
5.00	31	7.8
Total	398	100.0

The mean of components utilized among the 22 items of comprehensive postnatal care service was 14. The median and mode were both 13 with a ranging of 14. None of the participants got all 22 componenets. (Table 7)

Table 7. Comprehensive post natal care utilization assessment of all components

Number of correctly answered questions (22)	Frequency	Percent
6.00	3	.8
7.00	3	.8
8.00	8	2.0
9.00	2	.5
10.00	18	4.5
11.00	38	9.5
12.00	49	12.3
13.00	86	21.6
14.00	65	16.3
15.00	58	14.6
16.00	34	8.5
17.00	24	6.0
18.00	5	1.3
19.00	4	1.0
20.00	1	.3
Total	398	100.0

#### 5.4.1. Maternal and Newborn Danger Sign Information Characteristics

Participants were asked whether they were told on each of the 10 maternal danger signs. While only 4 (1%) of the participants were told all 10 of the danger signs, 134 (33.7%) were not informed on any of the danger signs. The most commonly informed maternal danger sign was heavy vaginal bleeding (n=, 63.1%) while both persistent vomiting and unexplained pain were the least signs (n=, 5.3%). The mean and median of the 10 maternal danger signs told to participants were the same; being 3. (Table 8)

With regard to neonatal danger signs only one mother reported to be told all 9 components and 194 mothers said they were not told about neonatal danger signs. The most commonly informed neonatal danger sign was fever (n=, 39.4%) while convulsion (n=, 4.5%) was the least informed sign. The mean and median of the 9 newborn danger signs were 2 and 1 respectively. (Table 8)

*Table 8. Participants educated on maternal and neonatal danger signs*

Variable	Frequency	Percent of
Counseled on maternal and neonatal danger signs (n=398)		of correctly
	respond	correctly
<b>I. Counsel on maternal danger sign</b>		respond
Heavy vaginal bleeding	251	63.1
Severe headache	204	51.3
Visual disturbance	130	32.7
Severe abdominal pain	122	30.7
Disorientation	28	7
Fever	110	27.6
Foul smelling vaginal discharge	112	28.1
Unexplained pain in chest or legs	21	5.3
Breathing difficulty	29	7.3
Persistent Vomiting	21	5.3
<b>II. Counsel on neonatal danger sign</b>		
Hypothermia	64	16.1
Feeding poorly or refusing	119	29.9
Fever	157	39.4
Fast breathing	62	15.6
Convulsion	18	4.5
Too sleepy	40	10.1
Yellowish discoloration of eye or skin	142	35.7
Pus in eye	50	12.6
Umbilicus red/pus	92	23.1

#### **5.4.2. Education on Healthy eating, Iron Supplements and Breast Feeding**

Among 398 participants 132 (33.2%) and 222 (55.8%) reported to have been counseled on healthy eating and taking iron supplements respectively.

Most of the mothers (n=, 86.7%) were started on breastfeeding within the first hour. Among the participants 355 out of 398 (89.2%) reported to have been counseled on EBF and 27(6.8%) mothers were not started on breastfeeding at discharge.

Table 9. Breastfeeding characteristics

Variable	Frequency	Percent
<b>Initiation of Breastfeeding</b>		
Yes	371	93.2
No	27	6.8
<b>Time of Initiation breast feeding</b>		
Within one hour	345	86.7
After one hour	26	6.5
No initiation	27	6.8
Counseling on EBF for 6 Months	355	89.2
<b>Type of Current Newborn Feeding</b>		
Breast feeding	357	89.7
Breast milk with spoon/cup	11	2.8
Breast milk with bottle	9	2.3
New born formula	21	5.3

#### 5.4.3. Characteristics of Postpartum Contraceptive

Among the study participants 44.7% (n=178) received information about contraceptive methods and 41.5% (n=165) need to use contraceptive. From all participants who need to use contraceptive 43.6% (n=72) of them preferred to use injectable contraceptive. Although 11.3% (n=45) of participants received contraceptive during their current admission, only 17.8% (n=71) of those who didn't take contraceptive were linked to family planning clinics at discharge. (Table 10)

Table 10. The characteristics of postpartum contraceptive usage

Variable	Frequency	Percent
Received Information on Contraceptives	178	44.7
Need Contraceptive	165	41.5
Selected family planning method (n=165)		
IUCD	29	17.6
Oral Contraceptive	19	11.5
Condom	1	.6
Sterility	1	.6
Injectable	72	43.6
LAM	16	9.7
Implanon	27	17.6
Received contraceptive before discharge	45	11.3
Linked to family planning clinic if not provided	71	17.8

#### **5.4.4. Counseling about Postpartum Depression**

Only 10.8% (n=43) of postpartum women were counseled on 50% (n=2) of components of postpartum depression counseling. Among the 43 participants counselled 27 (62.8%), 23 (53.5%), 12 (27.9%), and 9 (21.4%) were on dissatisfaction on what they used to do, low spirit, feeling tired and not being able to concentrate respectively.

#### **5.4.5. Information on Personal Hygiene and Voiding**

Two hundred seventeen (54.5%) of the mothers were counseled about personal hygiene and 300 (75.4%) of the participants were asked by provider on passing urine. On the other hand, 98 (24.6%) of them were not asked whether they had passed urine.

#### **5.4.6. Assessment of Maternal and Neonatal Vital Signs**

Maternal vital signs were taken according to the WHO recommendation in 145 (36.9%) of the participants and 371 (93.2%) of the participants had vital sign taken before discharge.

Among 408 neonates born from 398 mothers, neonatal vital signs were taken for only 55 (13.5%) of them. The rest 353 (86.5%) newborns had no vital signs evaluation at discharge.

#### **5.4.7. Assessment of HIV and VDRL status and Treatment Condition**

The maternal HIV status was documented on the chart for 397 (99.7%) of the postpartum women except for one. There were 5 HIV positive mothers and all have started treatment. Regarding maternal VDRL status there were 5 (1.3%) undocumented cases. There were 3 VDRL positive mothers and treatment was started for all.

#### **5.4.8. Assessment of New Born Care Characteristics, Vaccination and postnatal care appointment**

Most of the newborns were given eye care 401(98.3%), vitamin k 401 (98.3%) and cord care 396 (97.1%) given.

Three- fourth of the participants were asked by health provider whether the neonate has passed urine and stool. The newborn was checked if passed urine and stool in 75.7% of the cases (309) and 73% of the cases (299) respectively.

Almost all participants (n=384, 96.5%) were appointed for postnatal care service and 85.9 were interested to have postnatal care service. Among 408 newborns born to 398 mothers 394 (96.5%) were linked for neonatal vaccination. The rest 14 newborns (3.5%) were not linked.

#### **5.4.9. Obstetric Complications and Chronic Illnesses**

Among the study participants 58 (14.1%) had obstetric complication. The most common obstetric complication was prelabor rupture of membranes 4% (16). From the 58 postpartum woman with obstetric complications 56 (96.6%) completed the managements before discharge. (Table 11)

*Table 11. Obstetric complication management assessment*

<b>Variable</b>	<b>Frequency</b>	<b>Percent</b>
Presence of Obstetric Complication	58	14.1
Type of Obstetric Complication (n=58)		
APH	8	2.0
GDM	8	2.0
Oligohydramnios	1	0.3
Polyhydramnios	1	0.3
PPH	5	1.3
PROM	16	4.0
SPE	15	3.8
Complete Management of Obstetric Complication (n=58)	56	96.6

Twenty two (5.5%) of the study participants had chronic illnesses and from those 19 (86.4%) were linked for chronic illness follow up.

#### **5.5. Association of counseling with sociodemographic and obstetric characteristics**

There are 7 counseling components on the WHO pre-discharge checklist. Six are maternal components and one is neonatal component. These are counseling on maternal and newborn danger signs, hygiene, breast feeding, nutrition, contraceptives and postpartum depression.

There were 10 (2.5%) participants who weren't counseled on any of the 7 components and none of them were counseled on all 7 items. The mean, median and mode was also low (all 3). The range was 6 with only 8 postpartum women told about 6 out of 7 of the counseling messages.

*Table 12. Counseling messages of the CPNC*

<b>Counseling components provided</b>	<b>Frequency</b>	<b>Percent</b>
0	10	2.5
1	57	14.3
2	96	24.1
3	125	31.4
4	69	17.3
5	33	8.3
6	8	2.0
Total	398	100.0

The participants who delivered via CD have about twice the chance of being counseled on healthy eating and contraceptives than SVDs.

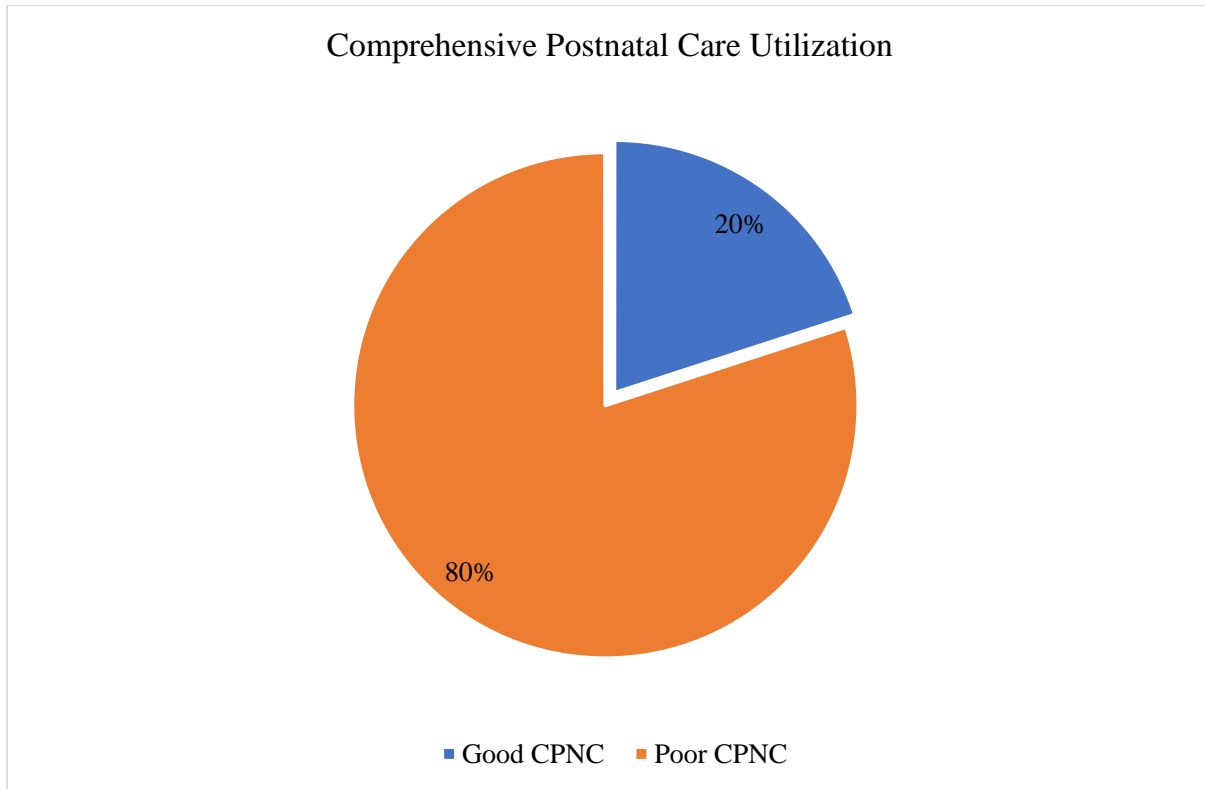
Those postpartum women who started to have ANC late during the third trimester were given 1.5 times higher counseling on hygiene and contraceptive use than those who presented during first or second trimester.

Table 13. Association of counseling services and socio-demographic and obstetric characteristics

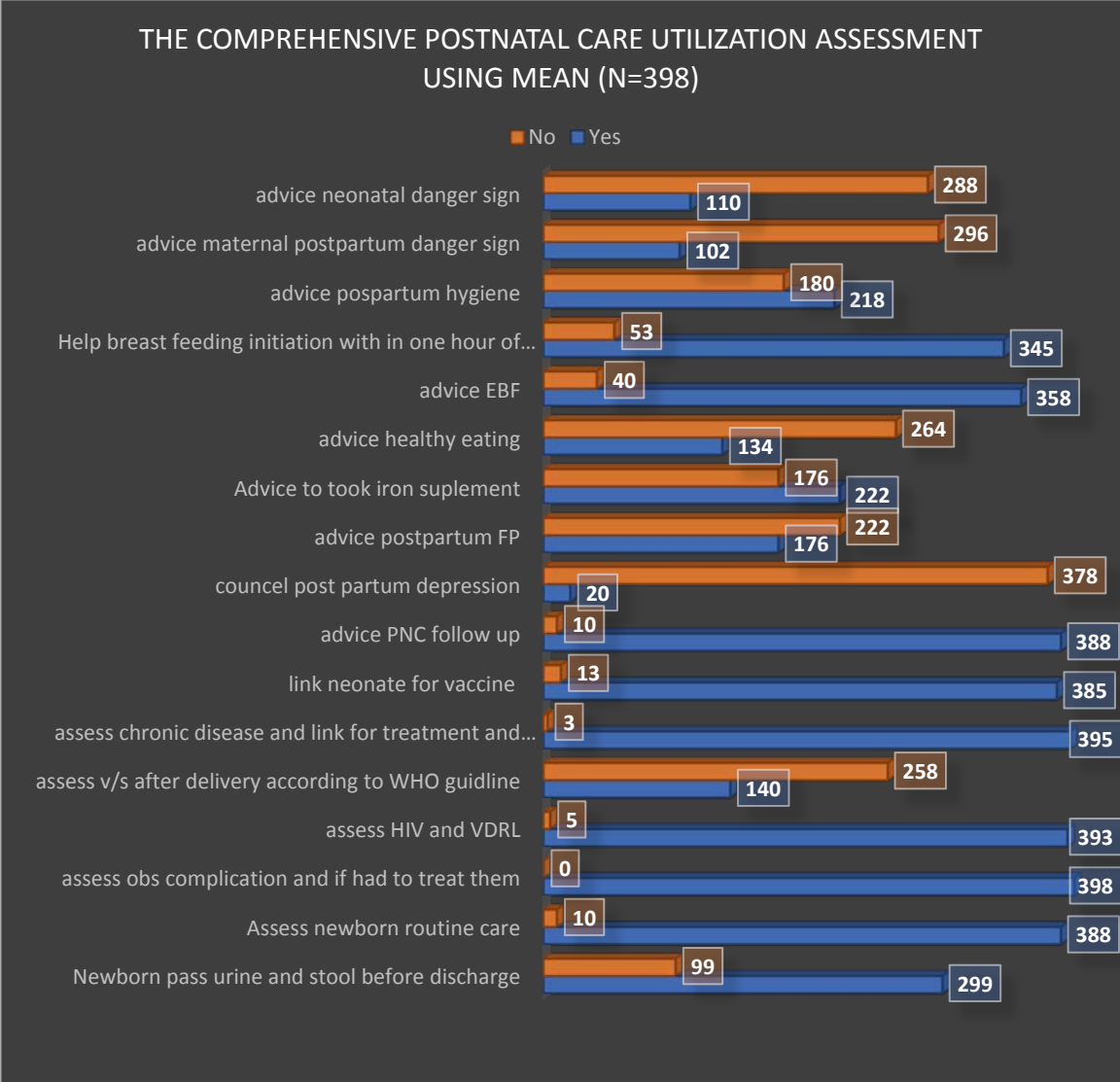
Variable	Counseling on Maternal Danger Signs		Counseling on Neonatal Danger Signs		Counseling on Hygiene		Counseling on Breast Feeding		Nutritional counseling		Counseling on contraceptives		Counseling on Postpartum Depression		Total
<b>Age of participant</b>															
≤24	28	24.7%	36	31.8%	70	61.9%	107	94.6%	41	36.2%	51	45.1%	5	4.42%	113
25-34	60	24.6%	59	24.2%	122	50.2%	211	86.8%	71	29.2%	103	42.3	9	3.70%	243
≥35	9	21.4%	15	35.7%	25	59.5%	40	95.2%	20	47.6%	24	57.1%	3	7.14%	42
<b>Marital status</b>															
Married	93	25.2%	107	28.9%	212	57.4%	348	94.3%	125	33.8%	174	47.1%	17	4.60%	369
Single	4	30.7%	3	23.0%	4	30.7%	9	69.2%	6	46.1%	3	23.0%	0	0.00%	13
Divorced	0	0.00%	0	0.00%	1	100%	1	100%	1	100%	1	100%	0	0.00%	1
<b>Educational Status</b>															
No education	6	24.0%	10	40.0%	21	84.0%	24	96.0%	10	40.0%	13	52.0%	3	12.0%	25
Primary	37	21.7%	32	18.8%	86	50.5%	157	92.3%	64	37.6%	73	42.9%	6	3.52%	170
Secondary	44	28.7%	54	35.2%	76	49.6%	129	84.3%	43	28.1%	67	43.7%	6	3.92%	153
collage and above	10	20.0%	14	28.0%	34	68.0%	48	96.0%	15	30.0%	25	50.0%	2	4.00%	50
<b>Occupation</b>															
House wife	62	24.6%	64	25.3%	137	54.3%	226	89.6%	90	35.7%	118	46.8%	10	3.96%	252
Daily Laborer	7	43.7%	3	18.7%	12	75.0%	16	100%	3	18.7%	3	18.7%	0	0.00%	16
Merchant	1	12.5%	0	0.00%	2	25.0%	8	100.0%	2	25.0%	4	50.0%	0	0.00%	8
Government Employee	8	17.7%	8	17.7%	23	51.1%	41	91.1%	18	40.0%	21	46.6%	3	6.66%	45
Private Employee	19	24.6%	35	45.4%	43	55.8%	67	87.0%	19	24.6%	32	41.5%	4	5.19%	77
<b>Income</b>															
≤1650	11	29.7%	7	18.9%	24	64.8%	33	89.1%	19	51.3%	19	51.3%	0	0.00%	37
1651-3200	18	17.1%	31	29.5%	70	66.6%	100	95.2%	34	32.3%	36	34.2%	4	3.80%	105
3201-5250	31	21.3%	52	35.8%	68	46.8%	126	86.8%	42	28.9%	64	44.1%	7	4.82%	145
5250-7800	21	25.9%	17	20.9%	42	51.8%	75	92.5%	23	28.3%	41	50.6%	5	6.17%	81
≥7800	16	53.3%	3	10.0%	13	43.3%	24	80.0%	14	46.6%	18	60.0%	1	3.33%	30
<b>Gravidity</b>															
Primiparous	41	22.2%	50	27.1%	111	60.3%	173	94.0%	55	29.8%	74	40.2%	9	4.89%	184
Multiparous	52	25.8%	52	25.8%	101	50.2%	178	88.5%	76	37.8%	95	47.2%	7	3.48%	201
grand multiparous	4	30.7%	8	61.5%	5	38.4%	7	53.8%	1	7.69%	9	69.2%	1	7.69%	13
<b>Place of ANC</b>															
Government Hospital	14	26.9%	15	28.8%	29	55.7%	47	90.3%	18	34.6%	30	57.6%	3	5.76%	52
Health Center	80	23.9%	95	28.4%	182	54.4%	300	89.8%	109	32.6%	143	42.8%	14	4.19%	334
Private Hospital	2	25.0%	0	0.00%	4	50.0%	8	100.0%	3	37.5%	2	25.0%	0	0.00%	8
<b>ANC starting</b>															
first trimester	38	23.0%	43	26.0%	85	51.5%	157	95.1%	49	29.6%	65	39.3%	8	4.84%	165
second trimester	50	25.1%	59	29.6%	106	53.2%	170	85.4%	69	34.6%	90	45.2%	8	4.02%	199
third trimester	9	29.0%	8	25.8%	25	80.6%	29	93.5%	12	38.7%	21	67.7%	1	3.22%	31
<b>Mode of delivery</b>															
SVD	40	23.1%	52	30.0%	89	51.4%	159	91.9%	37	21.3%	53	30.6%	6	3.46%	173
Instrumental	2	15.3%	5	38.4%	9	69.2%	12	92.3%	7	53.8%	8	61.5%	0	0.00%	13
c/s	55	25.9%	53	25.0%	119	56.1%	187	88.2%	88	41.5%	117	55.1%	11	5.18%	212
<b>Hospital</b>															
TASH	37	41.1%	27	30%	46	51.1%	80	88.9%	25	27.7%	43	47.7%	12	13.3%	90
ZMH	34	29.5%	52	45.2%	47	40.8%	105	91.3%	19	16.5%	29	25.2%	8	6.9%	115
GMH	26	13.4%	31	16%	124	64.2%	173	89.6%	88	45.6%	106	54.9%	23	11.9%	193

## 5.6. Assessment of Comprehensive Postpartum Care

The overall comprehensive post-natal care utilization was 0% but using the mean of care provided as cut of point the care was categorized as good PNC 20% (80) and poor PNC 80% (318).



*Figure 3. Comprehensive postnatal care utilization of study participants as categorized based on mean of care utilized*



*Figure 4. The assessment of comprehensive postnatal care utilization of women delivered in the three teaching hospital of addis Ababa university.*

**5.7. The determinants of Comprehensive Postnatal Care Utilization**

The association of maternal socio-demographic characteristics, reproductive and labor characteristics to comprehensive postnatal care utilization were examined, strengths of relationships were quantified using Odds Ratio (AOR) and 95% confidence interval.

Accordingly, age of participant, education level, gestation of ANC starting, place of delivery and mode of delivery had association with comprehensive postnatal care utilization using bivariate logistics regression model.

The report of multivariate logistic regression findings is that the odds of having to start antenatal care in the second trimester had almost two times good comprehensive postnatal care utilization compared to starting ANC in the first trimester (AOR; 1.9, 95%CI: 1.02,3.73),  $p < 0.05$ ). The odds of having comprehensive postnatal care were 4.1 times higher among mothers who had informed about the CPC at ANC compared to mothers who had information after delivery (AOR: 4.1; 95%CI: 1.20,13.65,  $p < 0.05$ ).

*Table 14. The bivariate and multivariate logistic regression on the effects of independent variable on comprehensive postnatal care utilization in the Teaching Hospitals of Addis Ababa University, Ethiopia, 2021*

Variable	Comprehensive post-natal care utilization		P-value	COR	P-value	AOR
	Good	Poor				
<b>Age in year</b>						
≤24	26	87	1		1	
25-34	33	210	0.027	<b>0.5(0.29, 0.93)</b>	0.071	0.55(0.29, 1.05)
≥35	21	21	0.002	<b>3.3(1.58, 7.06)</b>	0.077	2.2(0.91, 5.22)
<b>Educational Status of Study Participant</b>						
No education	16	9	0.000	<b>8.1(2.72, 24.08)</b>	0.010	<b>5.2(1.49,18.31)</b>
Primary	25	145	0.572	0.78(0.34, 1.81)	0.230	0.55(0.21,1.45)
Secondary	30	123	0.802	1.1(0.48,2.53)	0.809	0.89(0.35, 2.25)
Collage and above	9	41	1		1	
<b>ANC starting month</b>						
First trimester	19	146	1		1	
Second trimester	42	157	0.016	<b>2.1(1.14,3.69)</b>	0.043	<b>1.9(1.02,3.73)</b>
Third trimester	18	13	0.000	<b>10.6(4.50, 25.1)</b>	0.000	<b>11.27(4.09, 31.0)</b>
<b>Time the Study Participant is informed about the CPC</b>						
Prior to pregnancy	12	21	0.013	<b>2.6(1.22,5.60)</b>	0.032	<b>2.7(1.09, 6.79)</b>
At ANC	6	10	0.059	2.7(0.96,7.84)	0.024	<b>4.1(1.20,13.65)</b>
After Delivery	62	284	1		1	
<b>Place of delivery</b>						
Labor ward	27	160	1		1	
OR	53	158	0.009	<b>1.9(1.19,3.32)</b>	0.209	6.6(0.346, 12.73)
<b>Mode of delivery</b>						
SVD	24	149	1		1	
Instrumental	3	10	0.370	1.8(0.47,7.25)	0.338	2.2(0.43,11.89)
CD	53	159	0.007	<b>2.0(1.22,3.52)</b>	0.598	0.45(.023, 8.7)
<b>Sex of new born</b>						
Male	42	195	1		1	
Female	38	123	0.152	1.43(.87,2.34)	0.420	1.3(0.70,2.32)

## 6. Discussion

The purpose of comprehensive postnatal care service utilization is to avert both maternal and neonatal death and long-term complication. Therefore, this study, sought to investigate the magnitude of CPNC utilization after delivery at discharge among childbearing women in three teaching hospitals of Addis Ababa University.

The number of mothers with no education in this study is 6.3% which is almost half of Addis Ababa's figure (13%) according to EDHS 2019 (43). Those college and above according to EDHS 2019 in Addis Ababa are 26.5% which is much higher than the respondents level which is 12.6%. Those postpartum women with no education was given 1.5 times higher counseling on hygiene and postpartum depression. The counseling service among the comprehensive postpartum care was lower for SVDs when compared to CD cases probably due to longer hospital stay, lack of pre-discharge checklist and lack of adequate training on counseling services.

The recommended ANC service was given for 59.3% of the participants likely due to the COVID pandemic. The comprehensive postnatal care was higher among mothers who were informed about the CPC at ANC compared to mothers who had information at after delivery which was congruent with the study done in Bench Maji (28).

This study report showed that, the mean comprehensive post-natal care utilization was 0%. This finding was significantly low and difficult to compare with other studies because of lack of similar studies on the comprehensiveness of the care rather than the number of follow ups.

The difference may be due to the population difference, tool difference or sociodemographic variable difference. The significantly low values might be due to the tool difference in which the current study tool was adopted from WHO postnatal care guideline and pre-discharge checklist (13).

One of the determinants for low comprehensive postnatal care utilization is lack of checklist for advising women for danger sign as well as follow up and immunization protocol. This idea was supported by the finding conducted in Kenya (38).

In this study, 86.9% of the participants had support for initiation of breast feeding by the health provider and this finding was supported by the study conducted in Australia (40).

The factors that affect comprehensive postnatal care utilization were educational status, ANC (25, 26), information about comprehensive postnatal care utilization, mode of delivery, length of hospital stay (38, 39).

## **7. Limitation of the Study**

The limitation of this study is the use of cross-sectional study design may not allow causal relationships to be established. The other limitation is in difficulty to generalize the results to other health care facilities (especially non-hospital facilities). Another limitation is the fact that these institutions are teaching hospitals with various level of students caring for the postpartum women giving a wide range of results.

## **8. Conclusion and Recommendation**

In this study, the overall CPNC utilization was very low. The factors identified to affect comprehensive postnatal care were education level, ANC, time of information about CPNC utilization.

Counseling messages are especially low and affected more with mode of delivery and length of hospital stay. The consistent utilization of standardized counseling messages with regular provider trainings is recommended to improve quality and uptake of care. Measures have to be taken at each step to develop minimal standard for quality of care, quality indicators and pre-discharge checklist to avoid too early discharges prior to completion of the care.

It is recommended that all postpartum women at any educational level should be informed about postnatal care and those informed during pregnancy are more likely to get full package of the postnatal care and therefore encouraging further effort at the antenatal care services.

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## Annexes

Consent Form for Postpartum Mothers

Date \_\_\_\_\_

Good day, my name is \_\_\_\_\_. I am working as a data collector for the study being conducted in this hospital by Dr. Ferhia Basha who is studying for specialty of Obstetrics and Gynecology at Addis Ababa University, College of Health Sciences. I kindly request you to give me your attention to explain about the study and about you being selected as the study participant.

The Study Title: Assessment of Comprehensive Postnatal Care Service Utilization and Associated Factors during Discharge at Three Teaching Hospitals in Addis Ababa, Ethiopia, 2020 G.C. and \_\_\_\_\_ hospital is one of the hospitals selected.

Importance and Purpose of The Study: The findings of this study will have a paramount importance for women and newborns to plan a necessary intervention programs to give attention for maternal and child health services. Moreover, the aim of this study is to write a research paper as a partial requirement for the fulfillment of a specialty program of obstetrics and gynecology for the principal investigator.

Procedure and Duration: I will be interviewing you using questionnaire, there are 40 questions to answer. I will not take more than 20 minutes of your time.

Risks and Benefits: The risk of being participated in this study is negligible, but only taking a few minutes from your time. There would not be any direct payment for participating in this study. However, the findings from this research may reveal important information for the health planners working on improving maternal and newborn care.

Confidentiality: The data you will provide us will be confidential. There will be no information that will identify you. The findings of the study will be general for the study population and will not reflect anything particular of individual person. The questionnaire will be coded to exclude showing names. No reference will be made in oral or written reports that could link participants to the research. You have full right to refuse to take part or to interrupt the interview at any time.

Are you willing to participate in the study?

1- Yes

2 - No

1. If yes, continue to the next page

2. If no, skip to the next participant

## Questionnaire for Interview of Postpartum Mothers

### PART 1 – Socio - Demographic and Reproductive Characteristics

Table 1. Socio - Demographic and Reproductive Characteristics

No	Questions	Answers (Circle your choices)
1	How old are you?	-----Years (age in completed years)
4	What is your current marital/ relationship status?	1. Married 2. Single 3. Widowed 4. Divorced 5. Non married partner
5	What is your educational status (Highest Level)?	1. Primary School (Grade 1-8) 2. Secondary School (Grade 9-12) 3. Beyond Secondary School (College and above) 4. Unable to read & Write 5. Able to read and write without formal education
6	What is your current Occupation?	1. House wife 2. Daily laborer 3. Merchant 4. Government employee 5. Private employee 6. Other (specify).....
7	What is your total monthly income?	1. ....Ethiopian.Birr 2. No income
8	How many children do you have?	.....
10	Did you have ANC follow-up?	1. Yes 2. No
10 A	If yes, where was your ANC follow-up?	1. This Hospital 2. Health Center 3. Private Hospital 4. Other (specify).....
10 B	When was your first ANC contact?	.....months                      amenorrhea .....weeks

10 C	How many ANC contacts did you have during your pregnancy?	1. Once 2. 2 or 3 3. > or = 4
11	How many doses of TT vaccine did you take during pregnancy?	1. 1 2. 2 3. > 2 4. I did not take
12	Who helps you during the postpartum period?  (You can choose more than one)	Husband  Parents  Social Workers  No one  Others (specify).....

PART 2 – Information on Comprehensive Postnatal Care Services

Table 2. Information on Comprehensive Postnatal Care Services

No.	Questions	Answers (Circle your choices)
1	Were you well informed on the postpartum period when discharged?	1. Yes 2. No
1A	If yes, when were you informed?  (You can choose more than one)	1. Prior to pregnancy 2. At ANC 3. After delivery 4. Other (specify).....
2	Did anyone check on your health after you gave birth?	1. Yes 2. No
2A	If Yes, How many times did the healthcare providers try to check on you?	.....

3	How long after delivery did the first check take place?	1. Immediately..... 2. Minute..... 3. Hour.....
4	Who checked on your health after delivery?	1. Midwife 2. Doctor 3. Other (specify).....
5	Which danger signs of postpartum maternal health were you told about?  (You can choose more than one)	1. Heavy vaginal bleeding 2. Severe headache 3. Visual disturbance 4. Severe abdominal pain 5. Disorientation 6. Fever 7. Foul smelling vaginal discharge 8. Unexplained pain in chest or leg 9. Breathing difficulty 10. Vomiting 11. None
6	Which danger sign of newborn health were you told about?  (You can choose more than one)	1. Hypothermia 2. Feeding poorly or refusing 3. Fever 4. Fast breathing 5. Convulsion 6. Too sleepy 7. Yellowish discoloration of eyes or skin 8. Pus in eye 9. Umbilicus red/pus 10. None
7	Have you passed urine?	1. Yes      2. No
8	Did the newborn pass urine?	1. Yes      2. No
9	Did the newborn pass stool?	1. Yes      2. No
10	Where you told about the importance of hygiene?	1. Yes 2. No
11	Did health providers give you support or recommendation for breastfeeding?	1. Yes      2. No
12	Who gave you most of information about breastfeeding?	1. Health professionals providing ANC 2. Doctor in the maternity 3. Midwife in the maternity 4. Neonatologist in the maternity 5. Neonatology nurse in the maternity 6. Ward-mate/friend 7. Mother      8. Other (specify

13	What did the health workers tell you on how often you should feed your baby?	1. Breastfeed on schedules 2. Breastfeed on demand of the baby 3. Other (specify):.....
14	Did you start Breast Feeding?	1. Yes 2. No
15	If yes, How long after birth did you start to breastfeed for the first time?	.....minute(s)
16	Were you counseled on exclusive breast feeding for the first 6 months?	1. Yes 2. No
18	How do you feed your baby?	1. Breastfeeding 2. Breast-milk with spoon/cup 3. Breast-milk with bottle 4. Newborn formula 5. Donor's milk 6. Other (specify).....
19	Does your baby receive water/glucose?	1. Yes 2. No
20	Do you use artificial teats/pacifiers?	1. Yes 2. No
21	Are you told about healthy eating?	1. Yes 2. No
22	Were you given or did you buy any Iron tablets	1. Yes 2. No
23	Did you receive any information about contraception methods after delivery?	1. Yes 2. No
25	Did staff describe possible side effects?	1. Yes 2. No
26	Did staff explain what to do if you experience side effect?	1. Yes 2. No
27	Would you like to use contraception?	1. Yes 2. No

28	If yes, which contraception would you like to use?	<ol style="list-style-type: none"> <li>1. Intrauterine device (IUD)</li> <li>2. Oral contraceptives</li> <li>3. Condom</li> <li>4. Surgical sterilization of woman or man</li> <li>5. Contraceptive injections</li> <li>6. Vaginal spermicides (creams, suppositories, jelly)</li> <li>7. Lactational amenorrhea method (LAM)</li> <li>8. Rhythms or temperature method</li> <li>9. Other (Specify):.....</li> </ol>
29	Are you given contraceptives?	<ol style="list-style-type: none"> <li>1. Yes</li> <li>2. No</li> </ol>
29A	If no, are you referred to family planning follow-up?	<ol style="list-style-type: none"> <li>1. Yes</li> <li>2. No</li> </ol>
30	Are you counseled on signs of postpartum depression?	<ol style="list-style-type: none"> <li>1. Yes</li> <li>2. No</li> </ol>
30A	If yes, which of the following signs where you informed	<ol style="list-style-type: none"> <li>1. Low spirits</li> <li>2. Not enjoying the things she usually enjoys</li> <li>3. Feeling tired</li> <li>4. Not able to concentrate</li> </ol>
31	Are you given appointment or referred to other health facility for next postnatal care service?	<ol style="list-style-type: none"> <li>1. Yes</li> <li>2. No</li> </ol>
31A	If yes, where?	<ol style="list-style-type: none"> <li>1. This Hospital</li> <li>2. Health Center</li> <li>3. Private Hospital</li> <li>4. Other (specify).....</li> </ol>
32	Will you go to a health facility for your postnatal care?	<ol style="list-style-type: none"> <li>1. Yes</li> <li>2. No</li> </ol>
33	Are you given appointment or referred to other health facility for neonatal vaccination?	<ol style="list-style-type: none"> <li>1. Yes</li> <li>2. No</li> </ol>
34	Do you have chronic illness?	<ol style="list-style-type: none"> <li>1. Yes</li> <li>2. No</li> </ol>
35	If yes, where is your follow-up for your chronic illness?	<ol style="list-style-type: none"> <li>1. This Hospital</li> <li>2. Private Health Facility</li> <li>3. Health Center</li> <li>4. I don't have follow-up</li> <li>5. Other (specify).....</li> </ol>

36	Are you linked for follow-up?	1. Yes 2. No
37	Is the neonate admitted to the neonatal ICU at time of your discharge?	1. Yes 2. No
38	When did you get discharged?	..... (Time in local time and date (name the date of the week and in G.C.))

PART 3 - Information on Characteristics of the Health Care Providers

The following questions are on the healthcare providers who were with you after you delivered.

*Table 3. Information on Characteristics of the Health Care Providers*

<b>No.</b>	<b>Questions</b>	<b>Answers (Circle your choices)</b>
1	Did healthcare providers treat you with courtesy and respect?	1. Yes 2. No
2	Did healthcare providers listen carefully?	1. Yes 2. No
3	Did you understand what the healthcare providers explain to you?	1. Yes 2. No
4	Were you able to ask questions on the health care workers counseling?	1. Yes 2. No
5	How was the postnatal counseling done?	1. Individually 2. In groups
6	Do you feel redundancy in what is being communicated to you?	1. Yes 2. No
7	Was pain well controlled in your postpartum period?	1. Yes 2. No
8	Did the healthcare providers try to help you with the pain?	1. Yes 2. No

## Information to be gathered from Clinical Record

Table 4. Information to be gathered from Clinical Record

No.	Questions	Answers (Circle your choices)
1	When did she deliver?	..... (Time in local time and date (name the date of the week and in G.C.))
2	When did she get discharged?	..... (Time in local time and date (name the date of the week and in G.C.))
3	Where in the hospital did she deliver?	1. Labor ward (including CD) 2. EGOPD 3. Other (specify).....
4	What was the mode of delivery?	1 Spontaneous vaginal delivery 2 Cesarean delivery 3 Operative vaginal delivery 4 Breech Delivery 5 Destructive delivery
5	Did you have multiple births during current delivery?	1 Yes 2 No
6	What is the neonatal birth weight (in grams) of her current delivery?	.....grams
7	What is the sex of her child?	1 Male 2 Female
8	How often were maternal vital signs taken after delivery?	.....
9	Were maternal vital signs taken before discharge?	1. Yes 2. No
10	Is her HIV status recorded?	1. Yes 2. No
10A	If yes, What was the test result for HIV?	1. Reactive 2. Non-reactive

11	Is her syphilis test status recorded?	1. Yes 2. No
11A	If Yes, What is the test result for syphilis?	1. Reactive 2. Non-reactive
12	Which level of health professional was her delivery attendant?	1. Midwife 2. Intern 3. Resident 4. Other (specify).....
13	Where there any maternal complications during pregnancy, delivery or postpartum?	1. Yes 2. No
13A	If Yes, what was it?	.....
14	Did she complete inpatient treatment for complications?	1. Yes 2. No
15	Does she have chronic illnesses or other comorbidities?	1. Yes 2. No
15A	If yes, is she linked to appropriate clinic for follow-up upon discharge?	1. Yes 2. No
16	Is the child wanted?	1. Yes 2. No
17	Was newborn given eye care?	1. Yes 2. No 3. Not recorded
18	Was newborn given vitamin K?	1. Yes 2. No 3. Not recorded
19	Was newborn given cord care?	1. Yes 2. No 3. Not recorded
20	Were neonatal vital signs taken before discharge?	1. Yes 2. No
21	Where there any new born complications?	1. Yes 2. No
21A	If Yes, what was it?	.....
22	Was postnatal care pre-discharge checklist used prior to discharge?	1. Yes 2. No

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## የድህረ ወሊድ እናቶች ስምምነት ቅጽ

ቀን \_\_\_\_\_

መልካም ቀን ፣ ስሜ \_\_\_\_\_ ነው። በአዲስ አበባ ዩኒቨርሲቲ ጤና ሳይንስ ኮሌጅ በዕንስና ማህፀን ህክምና ስፔሻሊስትነት በሚማሩት ዶክተር ፈርዖ ባሻ በዚህ ሆስፒታል ለሚካሄደው ጥናት መረጃ አሰባሳቢ ሆኜ እየሰራሁ ነው። ስለ ጥናቱ እና ስለ እርስዎ የጥናት ተሳታፊ ስለመሆንዎ ለማብራራት ትኩረትዎን እንዲሰጡኝ በትህትና እጠይቃለሁ።

የጥናቱ ርዕስ - አጠቃላይ የድህረ ወሊድ እንክብካቤ አገልግሎት እና የምክር አገልግሎት በተመለከተ ማጥናት ነው።

የጥናቱ አስፈላጊነት እና ዓላማ - የዚህ ጥናት ግኝቶች ለእናቶች እና ለህፃናት ጤና አገልግሎቶች ትኩረት ለመስጠት አስፈላጊውን እቅድ ለማቀድ ለሴቶች እና ለአራስ ሕፃናት ከፍተኛ ጠቀሜታ ይኖረዋል። ከዚህም በላይ የዚህ ጥናት ዓላማ ለዋና መርማሪው የወሊድ እና የማህፀን ሕክምና ልዩ መርሃ ግብር ለማሟላት የምርምር ወረቀትን እንደ በከፊል መስፈርት መፃፍ ነው።

የአሰራር ሂደት እና የቆይታ ጊዜ - መጠይቅ በመጠቀም እጠይቅዎታለሁ ፣ ለመመለስ 40 ጥያቄዎች አሉ። ጊዜዎን ከ 20 ደቂቃዎች በላይ አልወስድም

አደጋዎች እና ጥቅሞች - በዚህ ጥናት ውስጥ የመሳተፍ አደጋ የለውም ፣ ግን ከእርስዎ ጊዜ ጥቂት ደቂቃዎችን ብቻ ይወስዳል። በዚህ ጥናት ውስጥ ለመሳተፍ ቀጥተኛ ክፍያ አይኖርም። ሆኖም ፣ የዚህ ምርምር ግኝቶች የእናቶች እና አዲስ የተወለዱ ሕፃናትን እንክብካቤን ለማሻሻል ለሚሠሩ የጤና ዕቅድ አውጪዎች አስፈላጊ መረጃን ሊያሳይ ይችላል።

ምስጢራዊነት - ለእኛ የሚሰጡን ውሂብ ሚስጥራዊ ይሆናል። እርስዎን የሚለይ መረጃ አይኖርም። የጥናቱ ግኝቶች ለጥናቱ ህዝብ አጠቃላይ ይሆናሉ እናም የግለሰቦችን የተለየ ነገር የሚያንፀባርቁ አይደሉም። መጠይቁ ስሞችን እንዳይገለጽ ይደረጋል። ተሳታፊዎችን ከምርምር ጋር ሊያገናኙ በሚችሉ በቃል ወይም በጽሑፍ ሪፖርቶች ውስጥ ማጣቀሻ አይደረግም። በማንኛውም ጊዜ ለመሳተፍ ወይም ቃለመጠይቁን ለማቋረጥ ሙሉ በሙሉ መብት አለዎት።

በጥናቱ ውስጥ ለመሳተፍ ፈቃደኛ ነዎት?

- 1- አዎ
  - 2- 2 - አይደለም
1. አዎ ከሆነ ፣ ወደሚቀጥለው ገጽ ይቀጥሉ
  2. ካልሆነ ወደ ቀጣዩ ተሳታፊ ይዘለሉ

**የድህረ ወሊድ እናቶች ቃለ መጠይቅ መጠይቅ**

**ክፍል 1 - ሶሻይ - የስነሕዝብ እና የስነተዋልዶ ባህሪዎች**

1. እድሜዎ ስንት ነው? \_\_\_\_\_ ዓመታት (ዕድሜ በተጠናቀቁ ዓመታት ውስጥ)
2. ሃይማኖት ምንድን ነው?
  - I. ኦርቶዶክስ
  - II. ሙስሊም
  - III. ቅርባኒክ
  - IV. ፕሮቴስታንት
  - V. ሌሎች (ይግለጹ
3. የአሁኑ የጋብቻ/ ግንኙነት ሁኔታዎ ምንድነው?
  - I. አግብቷል
  - II. አላገቡም
  - III. ባሏ የሞተባት
  - IV. የተፋታ
  - V. ያላገባ ባልደረባ
4. የትምህርት ደረጃዎ እስከስንት ነው?
  - I. የመጀመሪያ ደረጃ (1-8 ኛ ክፍል)
  - II. ሁለተኛ ደረጃ (9-12 ኛ ክፍል)
  - III. ከሁለተኛ ደረጃ በላይ (ኮሌጅ እና ከዚያ በላይ)
  - IV. ማንበብ እና መጻፍ የማይችል
  - V. ያለ መደበኛ ትምህርት ማንበብ እና መጻፍ የሚችል
5. የአሁኑ ሥራዎ ምንድነው?
  - I. የቤት እመቤት
  - II. የዕለት ተዕለት ሠራተኛ
  - III. ነጋዴ
  - IV. የመንግስት ሰራተኛ
  - V. የግል ሠራተኛ
  - VI. ሌላ (ይግለጹ
6. ጠቅላላ ወርሃዊ ገቢዎ በእትፕያ ብር ምን ያህል ነው? \_\_\_\_\_
7. ስንት ልጆች አሉዎት? \_\_\_\_\_
8. ቤትዎ ከዚህ ሆስፒታል (በኪ.ሜ) ምን ያህል ይርቃል? \_\_\_\_\_ --
9. የእርግዝና ክትትል አለዎት?
  - I. አዎ
  - II. አይደለም

10.አዎ ከሆነ ፣ የእርስዎ እርግዝና ክትትል የት ነበር?

- I. እዚህ ሆስፒታል
- II. የጤና ማዕከል
- III. የግል ሆስፒታል
- IV. ሌላ (ይግለጹ)-----

11.የመጀመሪያው የእርግዝና ክትትል የጀመርኸው መቼ ነበር?----- ወራት

12.በእርግዝናዎ ወቅት ስንት የክትትል ጊዜ ነበሩዎት?

- I. አንዴ
- II. 2 ወይም 3
- III.  $\geq 4$

13.በእርግዝና ወቅት ምን ያህል የቲቲ ክትባት ወስደዋል?

- I. 1
- II. 2
- III.  $> 2$
- IV. አልወሰድኩም

14.በድህረ ወሊድ ወቅት ማን ነበር የረዳዎት? (ከአንድ በላይ መምረጥ ይችላሉ)

- I. ባል
- II. ወላጆች
- III. ማህበራዊ ሰራተኞች
- IV. ማንም የለም
- V. ሌሎች (ይግለጹ)

**ክፍል 2 - ስለ አጠቃላይ የድህረ ወሊድ እንክብካቤ አገልግሎቶች መረጃ**

1. ከወሊድ በኋላ ወደቤታቸው የሚሄዱበትን ጊዜ ተነግሮዎት ነበር

- I. አዎ
- II. አይደለም

2. አዎ ከሆነ ፣ መቼ ተነገረዎት? (ከአንድ በላይ መምረጥ ይችላሉ)

- I. ከእርግዝና በፊት
- II. በክትትል ላይ
- III. ከወሊድ በኋላ
- IV. ሌላ (ይግለጹ)

3. ልጅ ከወለዱ በኋላ ጤንነትዎን ክትትል ተደረገለዎት

- I. አዎ
- II. አይደለም

4. አዎ ከሆነ ፣ የጤና ባለሞያዎች እርስዎን ለመመርመር ምን ያህል ጊዜ መጥተዋል?-----
5. ከወለድሽ በኋላ የመጀመሪያው ቼክ በምን ያህል ጊዜ ተከናወነ?
  - I. ወዳወኑ
  - II. ከደቂቃዎች በሁላ ዩግለፀ.....
  - III. ከሰአታት በሁላ ዩግለፀ ሰአቱን.....
6. ከወለዱ በኋላ ጤናዎን ማን መረመረዎት?
  - I. አዋላጅ/ሚድያይፍ
  - II. ዶክተር
  - III. ሌላ (ይግለጹ
7. ከወለድ በኋላ የእናቶች ጤና ስለየትኛው የአደጋ ምልክቶች ተነግሮዎታል? (ከአንድ በላይ መምረጥ ይችላሉ)
  - I. ከባድ ደም በመሀፀን መፍሰስ
  - II. ከባድ ራስ ምታት
  - III. የእይታ መዛባት
  - IV. ከባድ የሆድ ህመም
  - V. ግራ መጋባት
  - VI. ትኩሳት
  - VII. ከሴት ብልት የሚወጣ መጥፎ ሽታ
  - VIII. በደረት ወይም በእግር ላይ ያልታወቀ ህመም
  - IX. የመተንፈስ ችግር
  - X. ማስታወክ
  - XI. የለም
8. ስለ አዲስ የተወለደው ልጅ ጤና የትኛው የአደገኛ ምልክት ተነግሮዎታል? (ከአንድ በላይ መምረጥ ይችላሉ)
  - I. የሰውነት መቀዝቀዝ
  - II. ደካማ አመጋገብ ወይም እምቢ ማለት
  - III. ትኩሳት
  - IV. አተነፋፈስ መፍጠን
  - V. መንቀጥቀጥ
  - VI. እንቅልፍ ማብዛት
  - VII. የዓይን ወይም የቆዳ ቀለም ቢጫመሆን
  - VIII. በዓይን ውስጥ ነጭመሆን
  - IX. እትብት መቅላት
  - X. የለም

9. ሽንት ሽንተዋል?
- I. አዎ
  - II. አይደለም
10. አዲስ የተወለደው ሕፃን ሽንቱን ሽንቷል?
- I. አዎ
  - II. አይደለም
11. አዲስ የተወለደው ሕፃን ካካ አርጉል ወይ
- I. አዎ
  - II. አይደለም
12. ስለ ንፅህና አስፈላጊነት ተነግሮዎታል?
- I. አዎ
  - II. አይደለም
13. ጡት በማጥባት ስላለዉ ጥቅም ወይም ምክር ሰጥተውዎታል?
- I. አዎ
  - II. አይደለም
14. ስለ ጡት ማጥባት ብዙ መረጃ ማን ሰጠዎት?
- I. ክትትል የሚያደርጉ የጤና ባለሙያዎች
  - II. ዶክተር በወሊድ ጊዜ
  - III. አዋላጅ በወሊድ ጊዜ
  - IV. ኒዮናቶሎጂስት በወሊድ ጊዜ
  - V. በወሊድ ጊዜ የኒዮናቶሎጂ ነርስ
  - VI. ዋርድ-ንደኛ/ንደኛ
  - VII. እናት
  - VIII. ሌላ (ይግለጹ)
15. ልጅዎ ምን ያህል ጊዜ መመገብ እንዳለብዎት የጤና ባለሙያዎች ምን ነግረውዎታል?
- I. ሰአት በመወሰን ጡት ማትባት
  - II. በህፃኑ ፍላጎት ጡት ማጥባት
  - III. ሌላ (ይግለጹ) —
16. ጡት ማጥባት ጀመሩ?
- I. አዎ
  - II. አይደለም
17. አዎ ከሆነ ፣ ከወለዱ በኋላ ለመጀመሪያ ጊዜ ጡት ማጥባት የጀመሩት በምን ያህል ጊዜ ነው? -----
18. ለመጀመሪያዎቹ 6 ወራት ጡት ብቻ ማጥባት ላይ ምክር ተሰጥቶዎታል?
- I. አዎ
  - II. አይደለም

19.በቤትዎ አንዴ ጡት ማጥባት እንደሚችሉ እርግጠኛ ነዎት?

- I. አዎ
- II. አይደለም

20.ልጅዎን እንዴት ይመግቡታል?

- I. ጡት ማጥባት
- II. የጡት ወተት በስፖን/ኩባያ
- III. የጡት ወተት በጠርሙስ
- IV. ፎርሙላ ወተት
- V. የላም ወተት
- VI. ሌላ (ይግለጹ) .....

21.ልጅዎ ውሃ/ግሉኮስ ይቀበላል?

- I. አዎ
- II. አይደለም

22.ሰው ሰራሽ ጡቶች/ጡጦ ይጠቀማሉ?

- I. አዎ
- II. አይደለም

23.ስለ ጤናማ አመጋገብ ይነገርዎታል?

- I. አዎ
- II. አይደለም

24.እርስዎ የተሰጡዎት ወይም ገዘተዉ የአይረን ንጥረነገር ተጠቅመዉ ነበር

- I. አዎ
- II. አይደለም

25.ከወሊድ በኋላ ስለ ወሊድ መከላከያ ዘዴዎች ማንኛውንም መረጃ ደርሰዎታል?

- I. አዎ
- II. አይደለም

26.የርግዝና መከላከያ ዘዴዎች እንዴት እንደሚሠሩ የጤና ሰራተኞች በግልፅ አብራርተውልዎታል?

- I. አዎ
- II. አይደለም

27.የጤና ሰራተኞች የጎንዮሽ ጉዳዮችን ገልፀዋል?

- I. አዎ
- II. አይደለም

28.የጎንዮሽ ጉዳዮች ካጋጠሙዎት የጤና ሰራተኞች ምን ማድረግ እንዳለባቸው አብራርተዋል?

- I. አዎ
- II. አይደለም

29. የእርግዝና መከላከያ መጠቀም ይፈልጋል?

- I. አዎ
- II. አይደለም

30. አዎ ከሆነ የትኛውን የእርግዝና መከላከያ ዘዴ መጠቀም ይፈልጋል?

- I. የማህፀን ውስጥ የሚቀመጥ (ሉፕ)
- II. በአፍ እሚዋጥ የእርግዝና መከላከያ
- III. ኮንዶም
- IV. የሴት ወይም የወንድ ቀዶ ጥገና ማምከን
- V. የእርግዝና መከላከያ መርፌዎች
- VI. ጡት የማጥባት መከላከያ ዘዴ
- VII. የሙቀት መለኪያ ዘዴ
- VIII. ሌላ (ይግለጹ):

31. የእርግዝና መከላከያ መድሃኒት ተሰጥቶታል?

- I. አዎ
- II. አይደለም

32. ካልሆነ ፣ ወደ ቤተሰብ ዕቅድ ክትትል ተልከዋል?

- I. አዎ
- II. አይደለም

33. ከወሊድ በኋላ የጭንቀት ምልክቶች ላይ ምክር ተሰጥቶታል?

- I. አዎ
- II. አይደለም

34. አዎ ከሆነ ፣ እርስዎን ያሳወቁዎቸው ከሚከተሉት ምልክቶች ውስጥ የትኛው ነው?

- I. ዝቅተኛ መናፍስት
- II. አብዛኛውን ጊዜ የምትወዳቸውን ነገሮች አለማጣጣም
- III. የድካም ስሜት
- IV. አትኩረት መቆም ወይም መቀነስ

35. ለቀጣይ የድህረ ወሊድ እንክብካቤ አገልግሎት ቀጠሮ ተሰጥቶታል ወይም ወደ ሌላ የጤና ተቋም ለከወታል?

- I. አዎ
- II. አይደለም

36. አዎ ከሆነ የት?

- I. በዚህ ሆስፒታል ውስጥ
- II. የጤና ማዕከል
- III. የግል ሆስፒታል
- IV. ሌላ (ይግለጹ)

37.ለድህረ ወሊድ እንክብካቤዎ ወደ ጤና ተቋም ይሄዳሉ?

- I. አዎ
- II. አይደለም

38.ካልሆነ ለምን? (ከአንድ በላይ መምረጥ ይችላሉ)

- I. ከባል ወይም ከቤተሰብ ድጋፍ ማጣት
- II. አስፈላጊ አይመስለኝም
- III. ከወሊድ በኋላ ያሉ ሴቶች ቤት ውስጥ መቆየት አለባቸው
- IV. ከቤት መውጣት ጤናዬን ይጎዳል
- V. በአቅራቢያ ምንም የጤና ተቋም የለም
- VI. የትራንስፖርት ወጪዎችን መሸፈን አልችልም
- VII. የኮቪድ -19 ወረርሽኝን መፍራት
- VIII. እኔ አላውቅም
- IX. ሌላ (ይግለጹ)

39.ለ ሕፃናት ክትባት ቀጠሮ ተሰጥቶዎታል ወይም ወደ ሌላ የጤና ተቋም ልኩዎታል?

- I. አዎ
- II. አይደለም

40.ሥር የሰደደ / የታወቀ በሽታ አለብዎት?

- I. አዎ
- II. አይደለም

41.አዎ ከሆነ ፣ ለከባድ በሽታዎ ክትትልዎ የት አለ?

- I. በዚህ ሆስፒታል ውስጥ
- II. የግል ጤና ተቋም
- III. የጤና ማዕከል
- IV. ክትትል የለኝም
- V. ሌላ (ይግለጹ)

42.ለክትትል ቦታ ተመርተዋል ተገናኝተዋል?

- I. አዎ
- II. አይደለም

43.በሚወልዱበት ጊዜ አዲስ የተወለደ ልጅ ወደ ማሞቂያ ገብቷል?

- I. አዎ
- II. አይደለም

44.የወጣበት ጊዜ መቼ ነበር? ጊዜ በአከባቢ ሰዓት እና ቀን (የሳምንቱን ቀን ስም እና በጂ.ሲ.)-

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**ክፍል 3 - በጤና እንክብካቤ አቅራቢዎች ባህሪዎች ላይ መረጃ**

የሚከተሉት ጥያቄዎች እርስዎ ከወለዱ በኋላ ከእርስዎ ጋር በነበሩ የጤና እንክብካቤ አቅራቢዎች ላይ ናቸው።

1. የጤና እንክብካቤ አቅራቢዎች በአክብሮት እና በአክብሮት አስተናግደዎታል?
  - I. አዎ
  - II. አይደለም
2. የጤና እንክብካቤ አቅራቢዎች በጥምና አዳምጠዋል?
  - I. አዎ
  - II. አይደለም
3. የጤና እንክብካቤ አቅራቢዎች የሚያብራሩልዎትን ተረድተዋል?
  - I. አዎ
  - II. አይደለም
4. ካልሆነ ለምን በጤና ባለሙያዎች ምክሩን መረዳት አልቻሉም?
  - I. የቋንቋ አለመግባባታ
  - II. ስለማይሰማ
  - III. ሌላ (ይግለጹ)
5. በጤና እንክብካቤ ሠራተኞች ምክር ላይ ጥያቄዎችን መጠየቅ ችለዋል?
  - I. አዎ
  - II. አይደለም
6. ካልሆነ ለምን?
  - I. ለመጠየቅ ያስፈራል
  - II. እንዳንጠይቅ ተናግሯል
  - III. ሌላ (ይግለጹ)
7. የድህረ ወሊድ ምክር እንዴት ተደረገ?
  - I. በግለሰብ ደረጃ
  - II. በቡድን
8. በሚነገርዎት ነገር ውስጥ የመቀነስ ስሜት ይሰማዎታል?
  - I. አዎ
  - II. አይደለም
9. በድህረ ወሊድ ጊዜዎ ውስጥ ህመም በደንብ ተቆጣጥሮለዎታል?
  - I. አዎ
  - II. አይደለም
10. የጤና እንክብካቤ አቅራቢዎች በህመሙ ለረዳዎት ሞክረዋል?
  - I. አዎ
  - II. አይደለም

**ከክሊኒካል መዝገብ የሚሰበሰብ መረጃ**

1. መቼ ነው የወለደችው?..... (ሰዓት በአከባቢ ሰዓት እና ቀን (የሳምንቱን ስም እና ቀን በጁ.ሲ.))
2. መቼ ወደቤት ሄደች?..... (ሰዓት በአከባቢ ሰዓት እና ቀን (የሳምንቱን ስም እና ቀን በጁ.ሲ.))
3. በሆስፒታሉ ውስጥ የት ነው የወለደችው?
  - I. የማዋለጃ ክፍል (ሲ/ስ ጨምሮ)
  - II. EGOPD
  - III. ሌላ (ይግለጹ)
4. የመወለጃ ዘዴው ምን ነበር?
  - I. በምጥ
  - II. አፕሬሽን
  - III. በመሳሪያ
  - IV. በቂጡ
5. አሁን በሚወልዱበት ጊዜ ከአንድ በላይ እርግዝና ነበሩዎት?
  - I. አዎ
  - II. አይደለም
6. አሁን የተወለደዉ ሕፃን ክብደት (በ ግራም) ምን ያህል ነው?..... ግራም
7. የልጅ ያታ ምንድን ነው?
  - I. ወንድ
  - II. ሴት
8. ከወሊድ በኋላ የእናቶች ወሳኝ ልኬቶች ስንት ጊዜ ይወሰዳሉ? .....
9. ከመውጣቱ በፊት የእናቶች ወሳኝ ልኬቶች ተወስደዋል?
  - I. አዎ
  - II. አይደለም
10. የኤች አይ ቪ ሁኔታዎ ተመዝግቧል?
  - I. አዎ
  - II. አይደለም
11. የቂጥኝ ምርመራ ሁኔታዎ ተመዝግቧል?
  - I. አዎ
  - II. አይደለም
12. ያዋለደዎት የትኛው የጤና ባለሙያ ነበር?
  - I. አዋላጅ
  - II. ኢንተር
  - III. ሬዝደንት
  - IV. ሌላ (ይግለጹ) .....
13. በእርግዝና ፣ በወሊድ ወይም በወሊድ ጊዜ የእናቶች ችግሮች ነበሩ?
  - I. አዎ
  - II. አይደለም

14.አዎ ከሆነ ፣ ምን ነበር?...

15.ለችግሮች ህክምና አጠናቀቁት?

- I. አዎ
- II. አይደለም

16.እሷ ሥር የሰደደ በሽታዎች ወይም ሌሎች ተዛማጅ በሽታዎች አሏት?

- I. አዎ
- II. አይደለም

17.አዎ ከሆነ ፣ ከተለቀቀ በኋላ ክትትል ለማድረግ ከተገቢው ክሊኒክ ጋር ተገናኝታለች?

- I. አዎ
- II. አይደለም

18.ልጁ ይፈለጋል?

- I. አዎ
- II. አይደለም

19.አዲስ የተወለደ የዓይን እንክብካቤ ተሰጥቶት ነበር?

- I. አዎ
- II. አይደለም
- III. አልተመዘገበም

20.አዲስ የተወለደ ልጅ ቫይታሚን ኬ ተሰጥቶት ነበር?

- I. አዎ
- II. አይደለም
- III. አልተመዘገበም

21.አዲስ የተወለደ እትብት እንክብካቤ ተሰጥቶት ነበር?

- I. አዎ
- II. አይደለም
- III. አልተመዘገበም

22.አዲስ ከመውለዳቸው በሀላ አዲስ ለተወለዱ የጤና ምርመራ ተደረጎላቸዋል?

- I. አዎ
- II. አይደለም

23.አዲስ የተወለዱ የሕፃናት ችግሮች ነበሩ?

- I. አዎ
- II. አይደለም

24.አዎ ከሆነ ፣ ምን ነበር?.....

25.የድህረ ወሊድ እንክብካቤ ቅድመ-መውጫ የማረጋገጫ ዝርዝር ከመውጣቱ በፊት ተነግሮዎታል?

- I. አዎ
- II. አይደለም