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COLLEGE OF HEALTH SCIENCES SCHOOL OF PUBLIC HEALTH

Association of maternal knowledge of neonatal danger signs and postnatal care utilization of neonatal services, among mothers in Butajira, Ethiopia, 2019.

By - Seble Zenebe (BSc.)

A research to be submitted to Addis Ababa University, School of Public Health in partial fulfillment for the requirement for master of Public Health

Addis Ababa, Ethiopia

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APPROVED BY THE BOARD OF EXAMINATION

The thesis by, entitled “Association of maternal knowledge of neonatal danger signs and postnatal care utilization of neonatal services, among mothers in Butajira, Ethiopia, 2019.” is accepted in its present form by the board of examiners as fulfilling thesis requirements for the degree of master’s in Public Health specialty in Reproductive and family health.

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Acronyms and Abbreviations

ANC: Antenatal Care

AOR: Adjusted Odds Ratio

DSS: Demographic and Health Survey Surveillance

EDHS: Ethiopian Demography and Health Survey

HEW: Health Extension Workers

HSDP: Health sector Development Program

HSTP: Health sector Transformation Plan

ICD: International Classification of Diseases

MCH: Maternal and Child Health

MDG: Millennium Developmental goal

MMR: Maternal Mortality Ratio

OR: Odds Ratio

PNC: Postnatal Care

SDG: Sustainable Developmental Goal

SNNPR: Southern Nations, Nationalities and People region of Ethiopia

WHO: World Health Organization

Abstract

Introduction: Neonatal period is the first 28 days of life; they face highest risk of death during this time. Global rate of neonatal mortality rate is 19 deaths/1000 births. One of the prevention method which could decrease neonatal mortality is postnatal care to mother and baby after birth up to 6weeks. Worldwide, about one third of the neonates use postnatal care, while its utilization coverage in Ethiopia is very low. Knowledge of the neonatal danger sign is one of important factor for utilization of neonatal postnatal care.

Objective -The aim of this particular study was to determine the association between maternal knowledge of neonatal danger signs and postnatal care service utilization of neonate.

Method: Community based cross-sectional study using quantitative method was conducted at Butajira Ethiopia. A total of 523 mothers who had given birth before one year were selected using simple random sampling. Data were collected using a pre-tested structured interviewer-administered questionnaire. The data were entered using Epi-data v-4.4.3.1 and export to STATA14 for analysis. Bivariate and multivariate logistic regression were done to assess the association between knowledge of neonatal danger signs and utilization of postnatal care of neonate and P-value < 0.05 was used to declare the statistical significance.

Result -Postnatal care service utilization of neonates was 78.1% and maternal knowledge of neonatal danger signs were 15.8%. Place of residence [AOR=4.54, 95% CI (1.23-16.77)], place of delivery [AOR=26.9,95% CI (11.5-63.37)] and wealth index [AOR=8.13,95% CI (1.49 - 44.29)] had significant association with postnatal care utilization of neonates with in the first three days. However, mothers' knowledge of neonatal danger sign had no significant association with postnatal care utilization in the first three days [COR= 0.8,95% CI (0.45 - 1.42)].

Conclusion - In this study mothers' knowledge of neonatal danger sign hadn't shown association with neonatal postnatal care service utilization. Mothers in urban areas were found to utilize more neonatal postnatal care service than rural and mothers who had facility delivery were also found to utilize more than those with no facility birth. Strengthen and improve neonatal service provision in rural communities and also encouraging facility delivery is important.

1. Introduction

1.1 Background

Neonatal period is the first 28 days of life. They face highest risk of death during this period. More than two third of new born deaths occurred by the end of the first week after delivery and half of new born deaths occurred by the end of 24 hours (1).

The global neonatal mortality rate in 2015 is 19 deaths per 1000 live birth, where sub Saharan Africa's is 28 deaths per 1000 live births and Ethiopia has also the same rate as sub Saharan Africa 28 deaths per 1000 live births (2).

Neonatal health cannot be talk separated of maternal health. It is estimated that nearly two-third of the 8 million infant deaths that occur each year largely from poor maternal health and hygiene, inadequate care, inefficient management of delivery, and lack of essential care of newborn(3).

The sustainable development Goals (SDGs) include a specific target for newborns: achieve national expanded form NMRs of less than 12 deaths per 1000 live birth by 2030. (4).

According to the updated expanded form WHO guideline the recommendation of providing to postnatal care is; within 1hr after birth and checking again at discharge time, duration of stay in health facility should be 24hr and if the delivery is not at health facility first visit should be as early as possible within 24hr. Then additional visits recommended days are; 3dy(48-72) hrs. , between days (7-14) and 6weeks after birth(5).

Worldwide post-natal coverage is very low. A report of 48 countries from countdown countries for post-natal coverage since 2012 indicated the median coverage of postnatal care for babies was 36% (6). In Ethiopia according to Ethiopian Demographic and health Survey (EDHS) 2016 only 13.1% of neonates receive a postnatal care within the first 2 days of birth nationally and 14.2% Southern Nations, Nationalities and People region of Ethiopia (SNNPR).

1.2 Statement of the problem

A large proportion of maternal and neonatal deaths occur during the first 24 hours after delivery (3). For both the mother and infant, prompt postnatal care is important for treating complications that arise from delivery and providing the mother with important information on caring for herself and her baby(5), Although the postnatal coverage is very low in Ethiopia (3).

Postnatal care is continuum of care following a birth assessing of the new born and taking immediate measurement if any danger sign is observed, promote exclusive breast feeding within 30 minute, practicing skin to skin care, delay of first bath for 24hr. (5). Routine PNC service could enable to prevent newborn deaths. Postnatal care beyond survival has also effect on proper breast feeding which could prevent future under nutrition and poor child development (7).

In Ethiopia PNC is provided at all level including at the community by Health Extension program health post (1). Health Sector Development Program(HSDP) had targeted on PNC as high impact intervention plan with 78% in 2014 /15 and In Health Sector Transformation Plan (HSTP) Ethiopia planned to increase the coverage of PNC 90% to 95% by the end of 2020(8).

Despite of the benefit of postnatal care still most neonates do not receive postnatal care. In Ethiopia only 13% of newborns received a postnatal check within the first two days of birth. One in three women (34%) was informed about danger signs in newborns while neonatal mortality is 29 deaths per 1000 in 2016 (3).

Nearly 80% of mothers were more likely to delay in deciding to seek care for neonates(9). Working on the existing PNC program and strength it should be given priority in order to increase the utilization of PNC, factors and indicators should also be assessed. Studies show that there is low level of maternal knowledge of neonatal danger sign. However, there are no studies that show the association between maternal knowledge of neonatal danger signs and neonatal post-natal care utilization. Thus, this study tried to assess the association post-natal care utilization and maternal knowledge of neonatal danger.

1.3 Rational of the study

To decrease neonatal death Post- natal care utilization has to be promoted and implemented at all level. Despite of the availability of Post- natal care program is available in Ethiopia utilization of the service is very weak and the coverage is also very low (3).

There were different studies that have been done to assess factors associated with PNC utilization. But most of them have focused on maternal PNC utilization where Neonatal PNC utilization is lower compared to maternal PNC. This research intends to see the association of maternal knowledge of neonatal danger signs on neonatal PNC service utilization. The research was held in South Nation, Nationalities and people Region of Ethiopia where neonatal PNC service utilization was low. The research will help care providers and policy makers to focus and design different strategies on improvement of neonatal PNC utilization.

2. Literature review

2.1 Maternal and Neonatal Mortality

Maternal health is not limited to only her but it also related to her child. Maintaining maternal health is indirectly maintaining the Childs life. According to 2016 EDHS report all childhood mortality rates have dropped over time; the under-5 mortality rate has declined from 116 deaths per 1000 live to 67deaths per 1000 live births within the last 16years and also the neonatal mortality rate has declined from 49 deaths per 1000 live births to 29 deaths per 1000 live births and these shows the decline in neonatal mortality is not significant from under 5 mortality decline(3).

Neonatal mortality was greater among the poorest quartile households compared to the richest; maternal mortality was also high among the poorest households compared to the richest and households that had maternal mortality also experienced a clustering of neonatal mortality (10).

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 per 1,000 live births by 2020(8).

2.2 Maternal knowledge of neonatal danger signs and associated factors

Neonatal illnesses have been prominent to contribute a lot for morbidity and mortality in the world. Reduction of neonatal and infant mortality to tolerable level is difficult without good maternal knowledge regarding neonatal danger signs(9).

Neonatal danger sign is interconnected with maternal complication during pregnancy and birth (14). Neonate with multiple neonatal danger sign are more likely to develop more multiple complication during neonatal period , 26.2% of the neonates presented at least one danger sign at birth and 17.7 % of the neonates exhibited at least one complication within the first six weeks of life(10).

Danger signs of neonate from birth to 28days, classified according to WHO 2013 as, are stopped feeding well, fast breathing (breathing rate>60/min), history of convulsions, severe chest in drawing, no spontaneous movement, fever ($T_o > 37.5^{\circ}C$), low body temperature (temperature < $35.5^{\circ}C$) and any jaundice in first 24hrs life or yellow palms and soles at any age (11). Maternal knowledge of neonatal danger sign can be affected by different factors as directed by different

studies among which age of mothers, mothers' educational status, attending ANC, mothers' residence, distance to health institution and having neonatal danger sign are the commons.

During ANC follow up mothers get different information, most of the studies shows that mothers acquired knowledge about immunization although knowledge concerning signs of illness in newborn, cord care and newborn feeding is low(12). Nevertheless mothers who attended ANC during the last pregnancy compared to others were found to be 2 times more knowledgeable about neonatal danger sign(9).While there was standard MCH booklet for mothers in ANC follow up providers didn't clarify well the contents in and only some of the mothers were informed of neonatal danger sign(13).Other studies shows also that mothers with improved knowledge of newborn danger signs was not identified neither among women attending the recommended number of ANC visits nor among women using an SBA at delivery. This directs during ANC follow up health care providers must gave attention in satisfactorily disseminating enough health information not only about pregnancy time but also with concern to their newborn in relation to the newborn's health and what danger signs to look for needs(14).

Maternal education plays a major role in the understanding of neonatal danger signs. Studies shows that as mothers educational status increases mothers are more likely to be knowledgeable about neonatal danger signs as compared to mothers who can't read and write(11).Since educated mothers can acquire knowledge through their academic life and also they have better access for health service information(9).In opposite of this a study done in Nigeria shows that maternal knowledge of WHO labeled danger signs not affected by educational status of the mothers.

Mothers with knowledge of at least one danger sign of neonates were found more likely to search for health care services than with no knowledge of any danger sign (15). and these fast responses will help to increase the child survival. Besides it also found maternal knowledge significantly associated with birth preparedness (14).

Mothers as source of information mainly get from health services. In addition, exposure to media especially TV was found related with increase knowledge of mothers' neonatal danger signs (9).

Maternal programs should focus on educating of mothers specially giving attention to unemployed, prim -gravid and training of health providers(16).

2.3 Postnatal care utilization and the associated factors

Reducing maternal and neonatal mortality and increasing utilization of post-natal utilization is a global and local priority. Most of maternal and neonatal deaths occur during post- partum period which is one hr. after birth and ends six weeks(2). Despite of these the coverage of PNC utilization is very low and PNC is a negligence area. Factors explaining PNC completion were district of residence, pregnancy wanted ness, ANC attendance, knowledge of the mothers on PNC service, and place of delivery were determinants of postnatal care service utilization.

Mothers of unwanted pregnancies were less likely to attend PNC services compared to mothers of wanted pregnancies. Mothers who attended ANC services more frequently were more likely to receive PNC services compared to those who had attended fewer than 2 ANC services(17). Another study shows mother didn't know child care, high frequency to ANC visits (three times or four or more times) had less significant effect with PNC services utilization(18).This shows emphasis should be given during ANC follow up.

Mothers who delivered at facility in different studies un-expectedly were found less likely to attend to PNC services as compared to those who delivered outside the health facility(17). The reason for less utilizing of postnatal care of mothers who delivered at health facility than outside was suggested that mother deliver at health facility are more confidential about their health than those not deliver at health facility and they utilize less(19).Other study shown that mothers who delivered at health facility were more likely to utilize PNC as compared to mothers who gave their last birth at home(18).From those who give birth in health institutions; 294 (75.1%) of the mothers were give birth in hospital, from those who give birth in Health center and Hospital only 60(17%) of respondents were received advising from the health workers to come back for post-natal care follow up(11). These shows health care facilities are not operated as expected in promoting and giving information about PNC services.

PNC utilization was significantly associated (at a 10 % level of significance) with socio-demographic factors (age group and religion) and mother's knowledge of health practices related to pregnancy and newborn health(17).Awareness about postpartum danger signs was directly associated with PNC utilization(18).

Respondent's knowledge of postnatal care services is an important predictor of PNC utilization; accordingly, mothers who have knowledge of PNC services are more likely to utilize PNC than mother's who do not have knowledge on PNC services(20). Mothers who agreed the importance of postnatal care utilization were 7.5 times more likely to utilize post- natal care as compared to mothers who are not sure whether postnatal care was importance or not(21).

Mothers who were unable to read and write 86% were less probable utilize post- natal care follow up as compared to mothers with college level and above education (25). In this study culture had an influence in postnatal care utilization where 85% of them replied that they were not used postnatal care due to different cultures. Believing that the mother will be killed by devil if she go out from house before 45 days(21).

3. Objective

3.1. General objective

- To assess the association of maternal knowledge of neonatal danger sign and postnatal care utilization of neonates among delivered mother in Butajira, Ethiopia, 2019.

3.2. Specific objective

- To assess knowledge of neonatal danger, sign among mothers who had given birth in the last one year
- To assess the neonatal postnatal care utilization of mothers who had given birth in the last one year.
- To determine the association of maternal knowledge of neonatal danger sign and Postnatal care utilization of neonates among mothers who had given birth before one year the study.

4. Methodology

4.1 Study Area and Period

The study was conducted in Butajira area which is located in Guraghe and Silti zones of Southern Nations, Nationalities and People region (SNNPR) of Ethiopia. The area is located 130 km south of the central city Addis Ababa. The Butajira health and demographic surveillance system records vital events and migration at the household level after an initial baseline census in 1987, using village-based data collectors. Nine rural and one urban area were under follow up for over 25 years in Butajira by the Butajira health & demographic surveillance system. The Butajira health & demographic surveillance system area covers a sample within the District following ten communities initially sampled from the entire District. There are about 2889 reproductive age mothers in the District according to the BDSS dataset Residents of the study region varied in type of residential ecology, social, cultural, environmental, reproductive health and economic characteristics. There are different governmental health facilities 10 health posts, 4 health centers, 1 hospital. In addition, private and NGO health institutions serve the population.

The study was conducted from March 25 to April 25- 2019.

4.2 Study design

Community based cross-sectional study was conducted using quantitative method.

4.3 Population

4.3.1 Source population

All women who had given birth and under follow up in the Butajira Demographic Surveillance System (BDSS).

4.3.2 Study population

Mothers who had given birth before one year the study and who are resident in the selected Kebeles and under follow up in the Butajira Demographic surveillance system.

4.3.3 Inclusion criteria - Mother who had given birth before one year before the study

4.3.4 Exclusion criteria - Mothers with still birth and mother who lost their baby immediately after birth

4.4 Sample size Determination;

The required sample size was determined using single population proportion formula with the following assumptions:

- n = the number of participants to be interviewed;
- $(Z \alpha/2)^2 =$ standardized normal distribution value for the 95% CI, =1.96
- d = margin of error taken as 4%,

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

The sample size calculated using the above formula for specific objectives;

1. P = Proportion of prevalence of post- natal care of neonate EDHS 2016 SNNP, P= 14.2%

$$n = \frac{0.4625}{0.0016}$$

$$0.0016$$

$$n = 289$$

2. Using P=18.2% maternal knowledge of neonatal danger sign. (9)

$$n = \frac{0.5667}{0.0016}$$

$$0.0016$$

$$n = 354$$

The sample size calculated with larger sample size was taken to calculate the final sample size.

Since the population is less than 10,000 by using correction formula, it became 316 and design effect of 1.5 was used because of cluster sampling technique and finally 10% nonresponse rate was added and the sample size became 523.

4.5 Sampling technique or procedure

By using simple random sampling 5 kebeles were selected from 10 Kebeles. Study population was identified by reviewing the data from the Butajera DSS database and combining with records in hard copies. List of mothers' in the selected Kebeles who had given birth before one year were obtained from the record and were used as study participants in the study. All mothers in the selected Kebeles were selected as study participants.

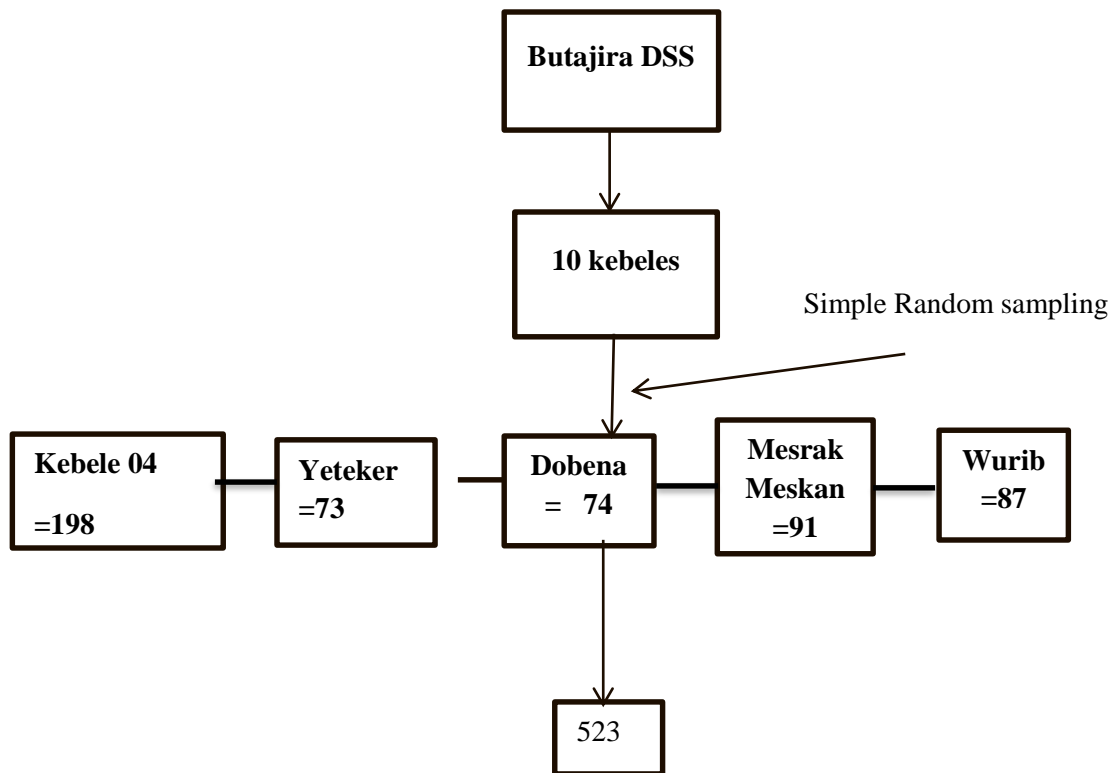


Figure 1: Schematic presentation of sampling procedure

4.6 Data collection tool

A structured interviewer-administered questionnaire was used for collecting quantitative data. The questionnaire was adapted from different literature. The questionnaire assessed socio demographic characteristics, knowledge of neonatal danger signs and post-natal service utilization. The questionnaire initially was prepared in English and then translated into Amharic language. The final developed questionnaire was pretested on 5% of sample size one week before data collection on unselected Kebeles. Some adjustment was done to the questionnaire to improve its understandability and clarity.

Data collection procedure

A face-to-face interview was performed using a structured pre-tested questionnaire. Five data collectors were selected and two supervisors to guide during data collection. Data collectors and supervisors had taken a one-day training before the actual work. The aim of the study, procedures, data collection techniques, the art of interviewing, ways of collecting the data, and clarification were given during the training. The objective of the study was explained for respondents and informed consent was obtained.

4.7 Data quality control

Questionnaire was pre-tested in one of the kebeles other than the selected kebeles on 5% of participants. Every day after data collection, questionnaires were reviewed and checked for completeness and relevance by the supervisors and a principal investigator, and the necessary feedback has been offered to data collectors in the next morning.

4.8 Data analysis procedure

The quantitative data were checked for its completeness and consistency. Then, data were coded, checked for clarity and entered into Epi data version 3.1 to check and minimize data entry errors. After cleaning, the data were exported to STATA version 14 for further analysis. Descriptive statistics were presented with mean, standard deviation, frequency and percentage.

Multiple Logistic regression was used to assess the association between dependent and independent variable. Bivariate analysis was used primarily to check which independent variables have an association with a p value less than (0.05) than that of the dependent variable. Variables which had been found to have an association entered into a multivariate analysis for controlling the possible effect

of confounders, and finally, the variables which had a p-value less than 0.05 were taken as a statistically significant association.

Socio-economic status was assessed by constructing an index by the use of PCA. The following domain went into the model.

Characteristics of the house including floor, wall and roof, Ownership of fixed assets like (television, mobile, phone, refrigerator, clock, bed), main source of water for cooking and handwashing, type of toilet facility and house hold room number. Cut off points were given for three equal groups and quintiles representing the low, middle and high.

4.9 Study Variables

Dependent Variable

- Post-natal care utilization of neonate within the first 3days

Explanatory variables

- Socio-demographic variables

Age of mother, Mother educational status, Mother's residence and Access to media

- Maternal knowledge of neonatal danger sign

- Obstetric histories

Antenatal care, Place of delivery and pregnancy wantedness.

4.10 Operational Definitions

Mother with good knowledge- who can list 3 and more than 3 neonatal danger sign.(9)

Mother with poor knowledge- mother list less than 3 neonatal danger sign (9)

4.11 Ethical consideration

The study was approved by Addis Ababa University, School of Public Health Research and Ethical Committee(REC). A letter obtained from Addis Ababa University, School of Public Health Committee(REC) was submitted to the relevant and concerned bodies before starting the study. Since we will use the Butajira data base and Demographic Surveillance and Health Research Center field site, prior permission was also obtained from the program managers. The information sheet and consent was provided for respondents to read for those who can read and the data collectors had read the consent form for those respondents who cannot read. Then informed verbal consent was obtained from study participants. Explanation was given for study participants there

was no potential hazard to the study subjects being participated in the study. Moreover, it was explained that the participant did not get any monetary or material benefit. Rather explanation was given on that the outcome of the study can serve as an entry point of designing programs and strategies for intervention. In order to protect the confidentiality of the information, names and house numbers didn't appear in the interviewer-administered questionnaire.

5. Result

5.1 Demographic and socio economic characteristics of respondents.

In this study a total of 479 mothers were participated with response rate of 91.6%. Of these mothers 288(60.1%) were from rural and 191(39.9%) were resident in urban. The mean age of the participants was 27 with \pm SD 13.28. Almost all of the participants 475(99.1%) were married. In case of educational status of the mothers, 197(41.1%) had no formal education. Of those who had formal education 203(42.4%) had primary school, 79(16.5%) High school and above.

Table 1: Demographic and socioeconomic characteristic of study participant mothers in Butajira, Ethiopia, 2019.

Variables	Category	No	Percent
Residence	Urban	191	39.9
	Rural	288	60.1
Age	15-24	109	22.8
	25-34	315	66.1
	\geq 35	53	11.1
Education Of Mother	Illiterate	148	30.9
	Can Read And Write No Formal Education	49	10.2
	Primary School	203	42.4
	High school and above	79	16.5
Occupation of Mother	House Wife	387	80.8
	Farmer	16	3.3
	Merchant	44	9.2
	Government Employee	17	3.5
	Private Employee	8	1.7
	Other	7	1.5
Marital Status	Single	2	0.4
	Married	475	99.2
	Divorced	2	0.4
Education Of Husband	Illiterate	74	15.6
	Can Read And Write No Formal Education	74	15.6
	Primary School	205	43.2
	High School and above	122	25.7
Occupation Of Husband	No Employee	6	1.3
	Farmer	226	47.6
	Merchant	64	13.5
	Government Employee	52	10.9
	Private Employee	89	18.7
	Other	38	8
Religion	Orthodox	53	11.1

	Muslim	417	87.1
	Protestant	5	1.0
	Other	4	0.8
Wealth Index	Low	164	34.2
	Middle	158	33
	High	157	32.8

5.2 Source of information about child and mothers' health

Regarding to information access about child and mothers' health, 265 (55.3%) had report that they have got the information from radio. These mothers had different frequency of listening; 21 (7.9%) once per month, 115 (43.4%) twice and 129 (48.7%) listened three times a month. One hundred thirty-one (27.3%) of mothers also reported they heard from TV in different frequency. Eleven (8.4%) of them watched television once, 73 (55.4%) twice and 47 (35.9%) three times within a month. Mothers who had listed neonatal danger signs had mentioned different source of information from where they had got the information, (102)21.3% had mentioned health professional, (102)21.3 % from radio, (58) (12.3% from friends and the rest (16)3.3% mentioned other source of information.

5.3 Knowledge of Neonatal Danger Sign

From all participants 293 (61.2%) of them heard about neonatal danger signs. Of all mothers 403 (84.1%) had listed less than 3 danger signs and 76 (15.9%) of them had listed 3 and more neonatal danger signs from the total of 8 questions of neonatal danger signs used for assessment with unprompted type question. Most of neonatal danger signs mentioned by mothers were stop feeding 184(62.8%), fever 182(62.1%) and 61(20.8%) fast breathing (Figure 2).

About 34 (7.1%) of mothers were mentioned some other signs as neonatal danger signs. These were diarrhea 13 (2.71%), vomiting and diarrhea 6 (1.25%), diarrhea and tonsillitis 5 (1.04%), tonsillitis 2 (0.42%) and others 8 (1.68%).

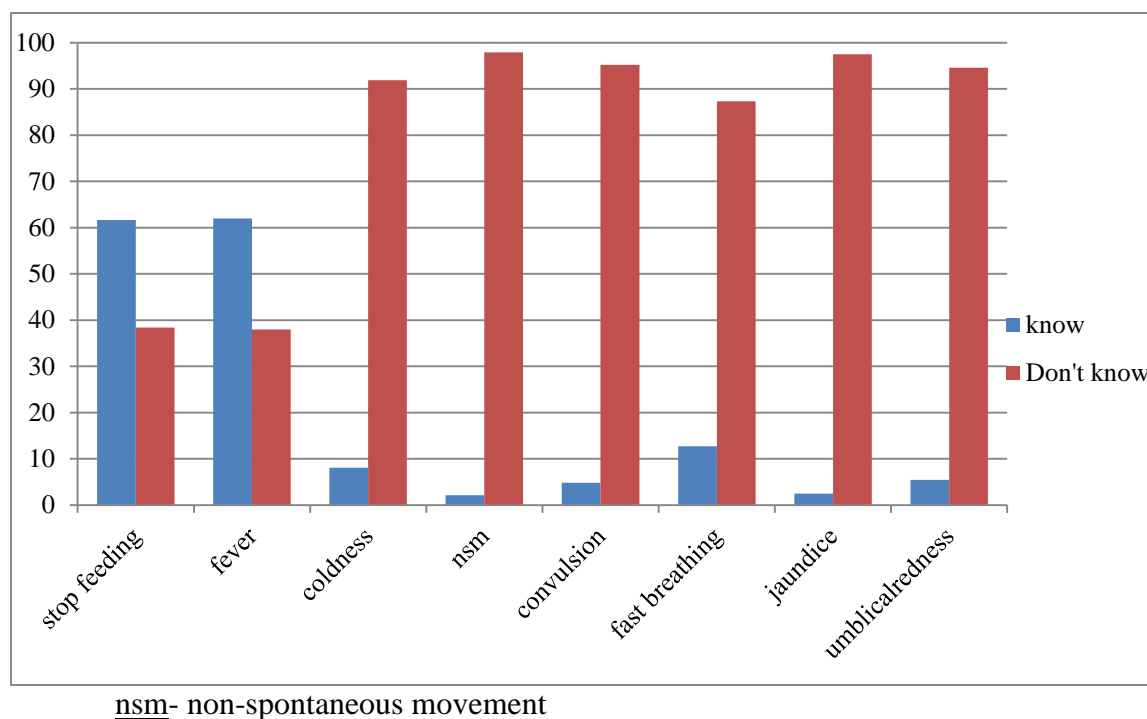


Figure 2 : Mothers' knowledge of each neonatal danger sign in Butajira, Ethiopia, 2019

5.4 Obstetrics characteristics

Mothers who had only one pregnancy were 77 (16.1%) and 12 (2.5%) of them had 9 pregnancies which was the maximum number of pregnancy among the study participants.

From the total mothers of 479, 454 (94.8%) had ANC follow-up for their last pregnancy. The mean week at which mothers had start ANC follow-up or time of starting first ANC visit according to their report was 17 weeks. Mothers reported that 40.3% of them have got ANC follow up from government health centers.

Of all mothers 447(93.3%) of them responded that their last pregnancy was wanted.

Table 2: Obstetric characteristics of mothers , Butajira , Ethiopia , 2019

Variable	Category	Number	Percentage (%)
Pregnancy	1	77	16.1
	2-4	242	50.5
	>4	160	33.4
	1	78	16.3

Number of birth	2-4	254	55.0
	> 5	147	30.7
Frequency of abortion	1	41	77.4
	2	10	18.9
	3	2	3.8
Frequency of neonatal death	1	14	77.3
	2	4	22.2
Time at first ANC visit	≤16wk	216	47.6
	16-24wk	218	48.0
	>24wk	20	4.4
ANC provider	Doctor	38	8.4
	Nurse	101	22.2
	Midwife	164	36.1
	Health officer	29	6.4
	HEW	120	26.4
	TBA	2	0.4
Place of ANC follow up	Other home	7	1.5
	Govt. Hospital	135	29.8
	Govt. Health center	183	40.3
	Health post	114	25.1
	NGO Health facility	2	0.4
	PVT. Hospital	13	2.8
Frequency of ANC follow-up	1	10	2.2
	2	29	6.4
	3	189	41.6
	4 and above	226	49.8

TBA- Trained traditional birth attendant, Other home-other than her home

5.5 Mothers' knowledge about Post Natal Care services

Mothers had different knowledge on time of postnatal care services. Most mothers 349(72.9%) were mentioned that babies are supposed to get PNC after 45 days and 27(5.6%) mothers were mentioned starting from birth.

From total mothers about 29 (6.0%) mothers had reported some constraints that prohibit them not to get the post-natal care service. The major reason reported by study participants was being closed of health posts [21 (72.4%)]. Other reasons like cultural beliefs not to get out of their home before 40 days [14 (48%)], and distance of health facility 4 (13%) were also mentioned by mothers.

Table 3: Perception of mothers on timing and place of neonatal PNC services in Butajira, Ethiopia, 2019.

Variables	Category	Number	Percentage (%)
Dangerous time for babies	At birth	66	13.8
	In 30days	28	5.8
	In 6month	89	18.6
	After 6month	296	61.8
Mothers' knowledge of PNC services	Immunization	377	78.7
	Measure body temperature	48	10.0
	Measure body weight of the baby	67	14.0
	Initiate breast feeding	92	19.2
Time of PNC for neonate after delivery	At birth	27	5.6
	In 30dys	53	11.1
	At 45 days	349	72.9
	After 6month	25	5.2
	I don't know	25	5.2
Place of neonatal PNC service	Her Home	17	3.5
	Other home	4	0.8
	Government Hospital	146	30.5
	Government health center	154	32.1
	Government health post	151	31.5
	NGO and Private Health facility	7	1.5

5.6 Postnatal care utilization

Majority of mothers 421 (87.9%) had given birth at facility; of these mothers 237 (49.5%) gave birth at hospital, 151 (31.5%) at health center, 20(4.17%) health post and 13 (2.71%) at NGO facility and private hospital. However, 58 (12.1%) of deliveries had taken place at home. Of the total delivery 278 (58.0%) was assisted by midwife, 84(17.5%) Doctor, 32(6.7%)Nurse, 16(3.34) Health officer, 24 (5.0%) HEW, 23 (4.8%) TBA, other personnel 18 (3.7%) and 4 (0.8%) were assisted by no-one.

Of all mothers 463 (96.7%) had got at least one visit of PNC for their babies at different time after delivery. From all Mothers who had received PNC services for their babies those who had received within 24 hours after delivery were 365 (76.2%). Majority of these mothers received at health

facility and only 5 (1.4%) had got PNC services for their babies at home that was given by HEW. Mothers were also asked about the frequency of PNC visit for their babies. Of all mothers 105 (21.9%) of them had two PNC visit and 23 (4.8%) of mothers had three visit

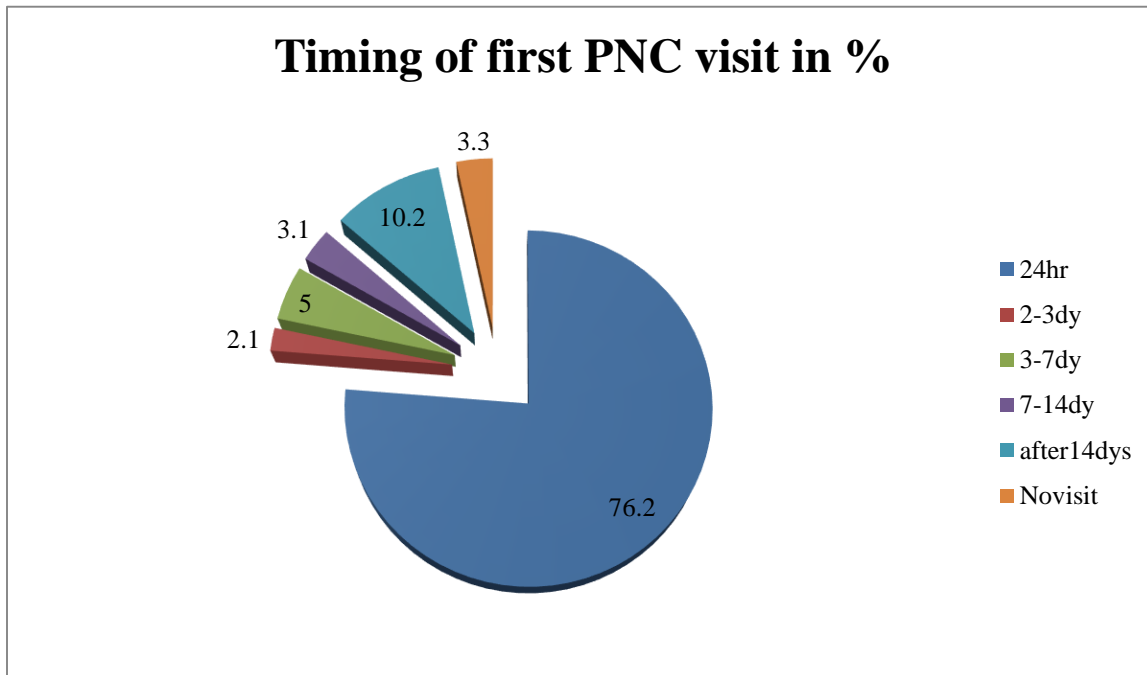


Figure 3 : Timing of PNC visit of babies delivered within the last 1 year in Butajira, 2019

5.7 Association between Postnatal care utilization of neonate and independent variables

In bivariate analysis educational status of the mother, wealth status, listening radio, watch tv, place of residence, place of delivery, age of mother, number of pregnancy, number of birth, and ANC follow up had shown significant association with PNC utilization of neonates at p-value < 0.05. Number of pregnancy and number of birth had shown multi- collinearity and did not included in multivariate regression model.

Those variables which were found significant in bivariate analysis were included in multivariate analysis in order to control confounders. In bivariate analysis, mothers' knowledge of neonatal

danger sign didn't show significant association with neonatal PNC utilization with in the first three days of birth [COR= 0.8,95% CI (.45 - 1.42)].

In multivariable analysis only residence, place of delivery and wealth index had shown significant association with neonatal PNC utilization. Odd of mothers reside in urban were 4.54 times high likely to use PNC for neonate in the first three days of delivery [AOR=4.54, CI (1.23-16.77)] compared to the rural, mothers who had given birth at health facility were 26.9 times high likely to utilize PNC than those mothers at home [AOR=26.9, CI (11.5-63.37)], Mothers who are higher wealth index were found 9 times high likely to utilize PNC than those in lower wealth index. [AOR=9, CI (1.7- 47.64)].

Table 4: Association of maternal knowledge of neonatal danger sign and PNC utilization of neonate Multiple logistic regression among mothers who had given birth in last one year in Butajira, Ethiopia, 2019.

Variables	Utilize PNC		COR(CI)	AOR(CI)
	Yes	no		
Residence				
Rural(ref.)	190	98	1	1
Urban	185	6	15.9(6.81- 37.16)	4.54(1.23-16.77)*
Age group				
15-24yrs(ref.)	91	18	1	1
25-34yrs	246	69	.71(.40- 1.25)	1.15(.56-2.39)
>35yrs	36	17	.42(.19- .90)	.98(.32- 3.03)
Maternal educational status				
Illiterate(ref.)	107	41	1	1
Can read and write	37	12	1.18(.56-2.49)	.76(.28-2.04)
Elementary	160	43	1.43(.87-2.33)	1.01(.49-2.04)
High school and above	71	8	3.4(1.50-7.68)	1.04(.35-3.08)
Listen radio				
No(ref.)	37	67	1	1
Yes	178	197	.61(.39 - .96)	.66(.35-1.22)
Watch TV				
No(ref.)	91	13	1	1
Yes	257	118	3.2(1.73-5.98)	.37(.13-1.06)
ANC follow-up				
No (ref.)	93	11	1	
Yes	361	14	3.05(1.34- 6.94)	1.31(.40- 4.29)
Wealth index				
Low(ref.)	97	67	1	1
Middle	126	32	2.71(1.65-4.47)	1.35 (.72- 2.52)

High	152	5	21(8.17-53.95)	9 (1.7- 47.64) *
Facility delivery				
No(ref.)	9	49	1	1
Yes	366	55	36.2 (16.85- 77.88)	26.9(11.5- 63.3)*

Ref. Reference *p-value < 0.05

6. Discussion

This study found postnatal care service utilization of neonates within the first three days was 78.1% and maternal knowledge of neonatal danger sign was very low, only 15.9%. Place of residence, place of delivery and wealth index had shown significant association with neonatal postnatal care utilization.

This study ensured that maternal knowledge of neonatal danger sign was very low, only 15.9% mothers had good knowledge of neonatal danger sign that were able to list down at least 3 neonatal danger signs and A cross-sectional study done in Kenya had also similar result with 15.5% of maternal knowledge of neonatal danger sign (13). In contrast, other studies indicated that the maternal knowledge were relatively high (15). However, maternal knowledge of neonatal danger signs was not found significantly associated with postnatal care utilization of neonates within the first days of birth.

Studies indicated that antenatal care was one of the factors that could affect the maternal knowledge of neonatal danger sign (3, 11). In this study the coverage of ANC was high (94.8%), whereas, knowledge of mothers about neonatal danger signs was very low. In parallel of this other study showed that mothers who attended more than 2 ANC were found to utilize PNC more than those who had less ANC follow up(17). In the current study the poor knowledge among mothers who attended ANC may show that mothers were not expressed well during ANC follow up about the neonatal danger signs. Studies had recognized that maternal knowledge of neonatal danger sign had effect on delay to seek care of neonatal illness which in turn would have had an effect on neonatal deaths, mother who had good knowledge of neonatal danger signs could early seek care than those who had poor neonatal danger signs (10,14). Antenatal care had effect on postnatal care(27).

In this study Postnatal care service utilization of neonates within three days was found very high (78.1%), but most of the utilization were within 24hr. (76.2%). This result was in contrast of other studies; study in India indicated that only 48 % of the newborns receive PNC checkup (22).and also Community based cross-sectional study conducted in Aseko district, Ethiopia showed that level of early postnatal care service utilization was 23.7% (23). In these studies, the PNC utilization was low compared to the finding of the current study. The high utilization of PNC in the study might occur because of the high proportion of the study participants gave birth at health facility. In contrary to this, in this study where the facility delivery is 87.9% only 1.0% of mothers who

gave birth at home had got postnatal care of neonates compared to the total study participants. This shows that facility delivery was high contributed to increase the 1st PNC, though still the utilization during other PNC times at 2nd visit 105 (22.7%) and 3rd visit 23 (4.8%) were very low. This indicates that PNC were only delivered at facility level and home visitation of PNC were neglected and even mothers who had given birth at facility were not encouraged to come back for PNC services. Although high neonatal death accounts with in the first 7days.

Mothers who had given birth at health facility had been found 26.9% high likely to had neonatal postnatal care with in the first three days after delivery. This was because mothers who had gave birth at facility could got at least the first postnatal care during the stay in the facility and those who had birth at home were found to had postnatal care of neonate after 7 days and this shows that postnatal care utilization is very low in mothers who had given birth at home, but studies indicate that receiving the first postnatal visit on the day of birth was associated with considerably lower neonatal mortality than receiving no visit (22,25). Neonates who had been delivered at home were more at risk than those who were delivered at facility (28), and the high coverage of postnatal care indicates the increment of facility delivery.

The study showed that mothers who were resident in urban were 4.54 times more likely to utilize postnatal care than who were in rural. These might be due to mothers who were in urban had more access to health facility than those in rural. This result was comparable to study done in India rural infants had risk for not utilizing postnatal care (OR 2.00,95% CI 1.54-2.6) (24).

Wealth index was also found to be significantly associated with postnatal care utilization of neonates. Mothers in this study with higher wealth index were high likely to utilize postnatal care than those with lower wealth index. Other studies had also similar result of this (24 ,26). This could be mothers with high wealth index could better access of health facilities than those with lower wealth index.

Other explanatory variables like educational status of the mother, Age, ANC attendant, Access to media which had been found significant in other studies were not significantly associated with post-natal care utilization so further studies must done on neonatal postnatal care service utilization.

7. Strength and limitation of the study

The strength of this study is that it is conducted in the community which enable to generalize to the population and has big sample size 523.

The study has also some limitations, as study design was cross-sectional it could not show cause effect relationship.

8. Conclusion

This study has shown that maternal knowledge of neonatal danger signs alone has no association with neonatal post-natal care utilization. The study has shown other factors place of delivery, place of residence and wealth index has association with post-neonatal care utilization. Mothers in rural were found to utilize PNC less than Urban ones and also mothers who had given birth at facility utilize more neonatal PNC. In this study utilization of neonatal PNC of mothers who gave birth at home were found very low and this shows that the community based neonatal PNC services must to be strengthen.

9. Recommendations

- Strengthen and improve neonatal postnatal care service at home visitation.
- Encouraging facility delivery which could improve postnatal care utilization.
- Future studies should be done on neonatal service utilization with different study design case control, cohort and also with qualitative study.

10. References

1. Sines E, Syed U, Wall S, Worley H. Postnatal care: A critical opportunity to save mothers and newborns. *Policy Perspectives on Newborn Health*. 2007:1-4.
2. Hug L, Sharrow D, You D. Levels & trends in child mortality: report 2017. Estimates developed by the UN Inter-agency Group for Child Mortality Estimation. 2017.
3. Ca I. Ethiopia demographic and health survey: key indicators report. Ethiopia, and Rockville, Maryland, USA CSA and ICF: Addis Ababa. 2016.
4. Organization WH. Health in 2015: from MDGs, millennium development goals to SDGs, sustainable development goals. 2015.
5. Organization WH. WHO recommendations on postnatal care of the mother and newborn: World Health Organization; 2014.
6. Collaboration Ct. Tracking progress towards universal coverage for women's, children's and adolescents' health: the 2017 Report. New York, NY: United Nations Children's Fund. 2018.
7. Warren C, Daly P, Toure L, Mongi P. Postnatal care. Opportunities for Africa" s Newborns Cape Town, South Africa: Partnership for Maternal, Newborn and Child Health. 2006:79-90.
8. Health FDRoEMo. Health sector Transformation Plan 2015/16–2019/20 (2008–2012 EFY). Federal Democratic Republic of Ethiopia Ministry of Health Addis Ababa; 2015.
9. Nigatu SG, Worku AG, Dadi AF. Level of mother's knowledge about neonatal danger signs and associated factors in North West of Ethiopia: a community based study. *BMC research notes*. 2015;8(1):309.
10. Okawa S, Ansah EK, Nanishi K, Enuameh Y, Shibanuma A, Kikuchi K, et al. High incidence of neonatal danger signs and its implications for postnatal Care in Ghana: a cross-sectional study. *PLoS One*. 2015;10(6):e0130712.
11. Jemberia MM, Berhe ET, Mirkena HB, Gishen DM, Tegegne AE, Reta MA. Low level of knowledge about neonatal danger signs and its associated factors among postnatal mothers attending at Woldia general hospital, Ethiopia. *Maternal health, neonatology and perinatology*. 2018;4(1):5.
12. Yadav S, Saund M, Thakur J, Yadav P, Yadav S, Shah G. Knowledge, attitude and practices on the care of the newborn in postnatal mothers delivering at a tertiary care centre in Nepal. *Sri Lanka Journal of Child Health*. 2016;45(3).
13. Kibaru EG, Otara AM. Knowledge of neonatal danger signs among mothers attending well baby clinic in Nakuru Central District, Kenya: cross sectional descriptive study. *BMC research notes*. 2016;9(1):481.
14. Sandberg J, Pettersson KO, Asp G, Kabakyenga J, Agardh A. Inadequate knowledge of neonatal danger signs among recently delivered women in southwestern rural Uganda: a community survey. *PLoS One*. 2014;9(5):e97253.
15. Ekwochi U, Ndu IK, Osuorah CD, Amadi OF, Okeke IB, Obuoha E, et al. Knowledge of danger signs in newborns and health seeking practices of mothers and care givers in Enugu state, South-East Nigeria. *Italian journal of pediatrics*. 2015;41(1):18.

16. Senarath U, Fernando DN, Vimpani G, Rodrigo I. Factors associated with maternal knowledge of newborn care among hospital-delivered mothers in Sri Lanka. *Transactions of the Royal society of tropical medicine and hygiene.* 2007;101(8):823-30.
17. Kanté AM, Chung CE, Larsen AM, Exavery A, Tani K, Phillips JF. Factors associated with compliance with the recommended frequency of postnatal care services in three rural districts of Tanzania. *BMC pregnancy and childbirth.* 2015;15(1):341.
18. Abebo TA, Tesfaye DJ. Postnatal care utilization and associated factors among women of reproductive age Group in Halaba Kulito Town, Southern Ethiopia. *Archives of Public Health.* 2018;76(1):9.
19. Somefun OD, Ibisomi L. Determinants of postnatal care non-utilization among women in Nigeria. *BMC research notes.* 2016;9(1):21.
20. Angore BN, Tufa EG, Bisetegen FS. Determinants of postnatal care utilization in urban community among women in Debre Birhan Town, Northern Shewa, Ethiopia. *Journal of Health, Population and Nutrition.* 2018;37(1):10.
21. Alemayeh H, Assefa H, Adama Y. Prevalence and Factors Associated with Post Natal Care Utilization in Abi-Adi Town, Tigray, Ethiopia: A Cross Sectional Study. *IJPBSF International Journal of Pharmaceutical and Biological Sciences Fundamentals.* 2014;8(01):23-35.
22. Singh A, Yadav A, Singh A. Utilization of postnatal care for newborns and its association with neonatal mortality in India: An analytical appraisal. *BMC Pregnancy and Childbirth* 2012,12:33
23. Teklehaymanot AN, Niguse D, Tesfay A (2017) Early Postnatal Care Service Utilization and Associated Factors among Mothers Who Gave Birth in the Last 12 Months in Aseko District, Arsi Zone, South East Ethiopia in 2016. *J Women's Health Care* 6:358
24. Titaley CR, Dibley MJ, Roberts CL. Factors associated with non-utilisation of postnatal care services in Indonesia. *J Epidemiol Community Health.* 2009;63:827–831
25. Baqui AH, Ahmed S, Arifeen S El, Darmstadt GL, Rosecrans AM, Mannan I. Effect of timing of first postnatal care home visit on neonatal mortality in Bangladesh: a observational cohort study. *BMJ* 2009;339:b2826
26. Dutamo Z, Assefa N, Egata G. Maternal health care use among married women in Hossaina, Ethiopia. *BMC Health Services Research* (2015) 15:365
27. Izudi J, Akwangand D G, Amongin D. Early postnatal care use by postpartum mothers in Mundri East County, South Sudan. *BMC Health Services Research* (2017) 17:442
28. Yinager Gebeyehu Workineh, Desta Aregawi Hailu. Factors Affecting Utilization of Postnatal Care Service in Amhara Region, Jabitena District, Ethiopia. *Science Journal of Public Health.* Vol. 2, No. 3, 2014, pp. 169-176. doi: 10.11648/j.sjph.20140203.15.
29. Bwalya, Bupe B., Mulenga C. Mulenga, and James N. Mulenga. 2016. Factors Associated with Postnatal Care for Newborns in Zambia: Analysis of the 2013-14 Demographic and Health Survey. DHS Working Papers No. 123. Rockville, Maryland, USA: ICF International.

11. Annexes

Annex I. Conceptual frame work

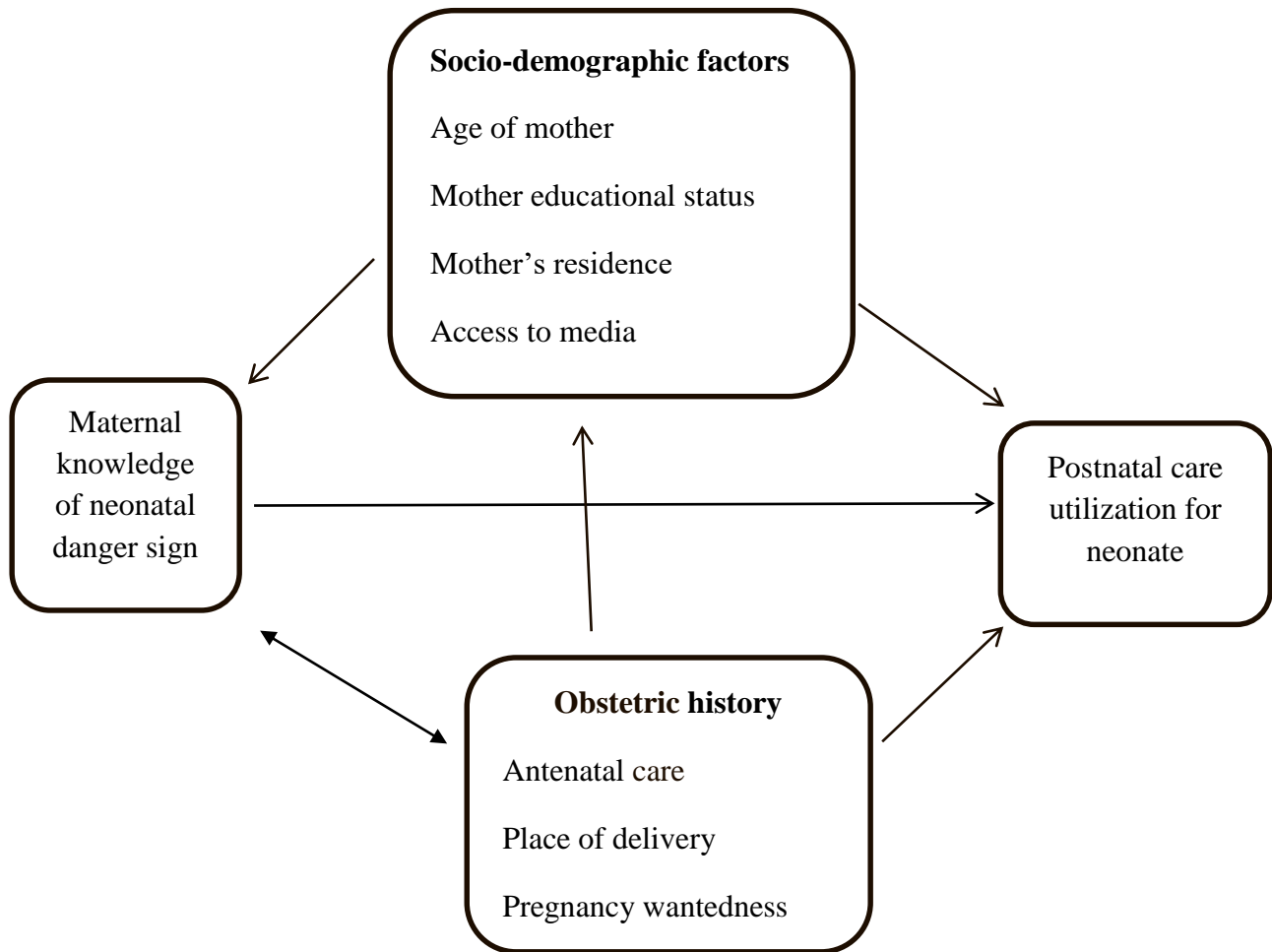


Figure 4: Adapted conceptual frame work for Neonatal post natal care utilization(29).

Annex II: Information sheet

Hello;

My name is-----

I am working on behalf of Seble Zenebe, who is doing a research as partial fulfillment for the requirement of Master of public health in reproductive health specialty at Addis Ababa University.

The main purpose of this study is to understand the maternal knowledge of neonatal danger signs and post-natal care service utilization among recent mothers in Butajira. The study has got permission from Addis Ababa University. Mothers who have given birth within the last one year are randomly selected to participate in the study.

Annex III: Informed consent sheet

I would like to ask you some questions about socio-demographic, obstetric history, knowledge of neonatal danger signs and post-natal care utilization. You will not get any financial or material benefit for participate with study. There is no any harm introduce to you during the study. Your name will not be recorded. All information you give will be kept strictly confidential and you have the right not to respond any question you don't want to and you can interrupt the interview at any time but as your response is important we highly encourage you not to discontinue. You will spend about 25 minute for the interview. Your participation is voluntary. Do you have any questions?

For more information, you can contact the primary investigator

Address: Name Seble Zenebe

Phone number -0912-93-44-85 E-mail; seblezenebe16@gmail.com

May I begin the Interview?

If Respondent is willing continue, if not discontinue and pass to another participant

Signature of interviewer _____ Date _____

Result code 1. Complete 2. In complete 3. Other specify

Questionnaire Number

Annex IV. English Questionnaire

Date _____

Participant Identification Number _____

Section 1 - background characteristics (socio demography)

Notice: First write or circle the appropriate answer on the coding categories & also

Put on the coding column

	Questions	Option of answers	Skip
101	In what month and year were you born?	Month. Year	
102	How old are you?	Age in completed years.....	
103	What is your educational level?	1. Illiterate (can't read and write) 2. Can read and write but no formal school 3. Primary school (grade 1-8) 4. Secondary school (grade 9-12) 5. Some college or technical school 6. College graduate or above 99. I don't know	
104	What is your occupation?	1. Housewife 2. Merchant 3. Farmer 4. government worker	

		5.private worker 77.Other specify	
105	What is your current marital status?	1.Single 2.married 3.Divorced 4.Widowed	
106	What is your husband's educational level?	1. Illiterate (can't read and write) 2. Can read and write but no formal school 3. Primary school (grade 1-8) 4. Secondary school (grade 9-12) 5. Some college or technical school 6. College graduate or above 99. I don't know	
107	What is your husband's occupation?	1.unemployed 2.Farmer 3.Merchant 4.government employee 5.Private employee 77. Other specify	
108	What is your religion?	1.Orthodox 2.Muslim 3.Catholic 4.protestant 77.other (specify	
109	Do you listen to the radio about mother and child health information?	1.Yes 0.No	
110	How many times a month?	1.once 2.twice 3.weekly	

111	Do you watch to television regarding to mothers and child health information?	1.Yes 0.No	
112	How many times a month?	1.once 2.twice 3.weekly	

Section Two: Questions regarding socio-economic information of the household

201	What is main current source of drinking water for members of your house hold?	1. Piped water 2. Public Tap/Stand Pipe 3. Protected well 4. Unprotected well 5. Protected Spring 6. Unprotected Spring 7. River/Ponds/Stream/Dam 77. Other (specify) _____	
202	What is the main source of water used by your household for other purposes such as cooking and hand washing?	1. Piped water 2. Public Tap/Stand Pipe 3. Protected well 4. Unprotected well 5. Protected Spring 6. Unprotected Spring 7. River/Ponds/Stream/Dam 77. Other (specify)_____	
203	Which of the following does your household have? (<i>Ask one by one</i>)	a.Electricity 1.Yes 0.No b.Radio 1.Yes 0.No c.Televison 1.Yes 0.No d.computer 1.Yes 0.No e.Non mobile telephone 1.Yes 0.No f.Refrigerator 1.Yes 0.No g.Electric mitad 1.Yes 0.No	
204	Does any member of this household own: (<i>Ask one by one</i>)	a.Watch 1.Yes 0.No b.Mobile 1.Yes 0.No c.Bicycle 1.Yes 0.No d.Motorcycle 1.Yes 0.No e. Animal-drawn cart 1.Yes 0.No f.Bajaj 1.Yes 0.No	

		g.Car/truck	1.Yes	0.No	
205	What kind of toilet facility do members of your household usually use? (Observe)				<ol style="list-style-type: none"> 1. Flush to piped sewer system 2. Flush to septic tank 3. Composting toilet 4. Bucket toilet 5. Pit latrine with slab 6. Pit latrine without slab 7. Ventilated improved pit latrine (VIP). 8. No facility/bush/field 77. Other (specify) _____
206	Is the toilet shared with the public or not?		1.yes	2.no	
207	What are the main materials of the floor of house? (Observe)				<ol style="list-style-type: none"> 1. Earth/Sand 2. Dung 3. Wood planks 4. Palm/Bamboo 5. Ceramic Tiles 6. Cement 77. Other (specify)_____
208	What are the main materials of the roof of house? (<i>observe</i>)				<ol style="list-style-type: none"> 1. Thatch/straw 2. Leaf/Earth/ Mud/Cow dung 3. Wood planks, cardboard 4. Finished roof (iron, tin, finished wood, cement, ceramic) 77. Other (specify)_____
209	What are the main materials of the Walls of house? (<i>observe</i>)				<ol style="list-style-type: none"> 1. Bamboo/cane 2. Bamboo with mud 3. stone with mud 4. plywood, cardboard 5. Finished walls with cement, brick, stone with cement, wood planks/shingles 77. Others (specify)_____
210	How many rooms in this household are used for sleeping?				_____ in number

Section 3:Obstetric characteristics

301	Now I would like to ask about all the pregnancies you have had during your life. During your life how many times have you been pregnant?	# of times mother was pregnant _____	
302	When you got pregnant with baby you just delivered, did you want to get pregnant at that time? (Planned)	1.Yes 0.No	
303	Now I would like to ask about all the births you have had during your life. During your life how many times have you given birth (including the birth you just had here)?	# of times mother gave birth [__ __]	
304	Have you ever had abortion/pregnancy terminated before 28 weeks of gestation?	YES.1 NO..... 2	IF NO...
305	During your life how many times have you had abortion/pregnancy terminated before 28 weeks of gestation?	# OF TIMES MOTHER HAD ABORTION [__ __]	
306	Have you ever had death of a child within the first 28 days of life?	YES.1 NO..... 2	
307	During your life how many times have you had death of a child within the first 28 days of life?	# of times mother had neonatal death [__ __]	
308	Did you see anyone for antenatal care for your last pregnancy?	YES.1 NO 2	
309	Whom did you see? Anyone else? PROBE TO IDENTIFY EACH TYPE OF PERSON AND RECORD ALL MENTIONED.	<u>HEALTH PERSONNEL</u> Doctor.1 Nurse.....2 midwife..... 3 Health officer.4 HEW.....5 <u>OTHER PERSON</u> Traditional birth attendant..... 6 other (specify) 7 _____	

310	<p>Where did you receive antenatal care for your last pregnancy?</p> <p>Anywhere else?</p> <p>PROBE TO IDENTIFY TYPE (S) OF SOURCE (S).</p>	<p style="text-align: right;"><u>Home</u></p> <p>Your home.1 other home..... 2</p> <p style="text-align: right;"><u>public sector</u></p> <p>Govt. hospital.3 govt. health center.....4 health post.....5 other public..... 6</p> <hr/> <p style="text-align: right;"><u>NGO</u></p> <p>Health facility.7</p> <p style="text-align: right;"><u>private med. sector</u></p> <p>PVT. hospital 8 PVT. clinic 9 other private facility.....10</p> <hr/> <p>other (specify) 11</p>	
311	<p>How many weeks pregnant were you when you first received antenatal care for your last pregnancy?</p>	<p>[__ __] weeks pregnant</p> <p>99.Don't Know</p>	
312	<p>How many times did you receive antenatal care during this pregnancy?</p>	<p># of times ANC received [__ __]</p>	

Section 4: Knowledge on neonatal danger sign and post-natal care utilization

401	<p>Did you hear about neonatal danger signs?</p>	<p>1.Yes 0.No</p>	<p><i>If No Skip to.....405</i></p>
402	<p>What are the neonatal danger signs that you know? (Do not read the options)</p>	<p>1.stopped feeding well 2. Too hot fever (temperature ≥ 37.5 °C), 3. Too Cold(temp.<35.5) 4. no spontaneous movement (sleepy, lethargy)</p>	

		<p>5. History of convulsions</p> <p>6. fast breathing (breathing rate of ≥ 60 per minute)</p> <p>7. Any jaundice in first 24 hours of life, or yellow palms and soles at any age.</p> <p>8. Umbilical redness or pus</p> <p>77. Other specify.....</p>	
403	Is stopping feeding well a sign of neonatal danger?	<p>YES.1</p> <p>NO..... 2</p>	
404	If the neonates become too hot is it a danger sign?	<p>YES.1</p> <p>NO..... 2</p>	
405	Is coldness of the neonate is danger sign?	<p>YES.1</p> <p>NO..... 2</p>	
406	If a neonate breathing is fast, is it danger sign?	<p>YES.1</p> <p>NO..... 2</p>	
407	Is any jaundice in first 24 hours of life, or yellow palms and soles at any age of the neonate, is it danger sign?	<p>YES.1</p> <p>NO..... 2</p>	

408	If the neonate has no spontaneous movement (too sleepy), is it a danger sign?	YES.1 NO..... 2	
409	Convulsion of the neonate is it a danger sign?	YES.1 NO..... 2	
410	Umbilical redness or pus is it neonatal danger sign?	YES.1 NO..... 2	
411	From where did you hear these signs?	1.Radio 2. television 3. Health professionals 4. Friends 77.Other specify	
412	Which period is more dangerous (needs special attention) for babies after delivery? 99.I don't know	
413	What health cares could be provided after delivery for babies within 6weeks? (for example-examining the baby)	1.Immunization 2. measuring temperature, weight, cord care) 3. measuring weight 4.Counsel on breast feeding 77.other 99.I don't know	
414	In which time do babies get postnatal time after deliver?	-----	

		99.I don't know	
415	Where is the main place that you are able to get post-natal care service from?	Public sector Government Hospital1 Government health center . . . 2 Government health post ... 3 other public sector (SPECIFY) NGO Health facility. . 4 Other NGO health facility 5 Private medical sector Private hospital. . 6 Private clinic.... Other private medical sector 99. I don' know	
416	Are there any reasons that prevent you from attending postnatal care service for your newborn?	1.Yes 0.No	
417	If yes what are the reasons?	1.cultural beliefs 2.long distance from health facility 3.my religion do not allow 4.usually health posts are closed 77.Other specify	

Section 5: post-natal care utilization

501	Who assisted with the delivery of (NAME)?	<u>Health personnel</u> Doctor 1 Nurse 2 Midwife 3 Health officer 4	
-----	---	---	--

		health Extension worker.....5 <u>Other person</u> traditional birth attendant 6 other (specify).....77 no one assisted. 8	
502	Where did you give birth to (NAME)?	Home Her Home.....1 Other home 2 Public sector Government Hospital 3 Government health center....4 Government health post.....5 other public sector (SPECIFY)6 NGO Health facility.7 Other NGO health facility 8 Private medical sector Private hospital.....9 Private clinic.....10 Other private medical sector.....11	
503	Did any health care provider or a traditional birth attendant visit the baby for the first time after delivery for assessing health status of the baby?	1. Yes 0. No	If No skip to
504	How long after delivery was (baby)'s first visit takes place? (IF LESS THAN ONE DAY, RECORD HOURS; IF LESS THAN ONE WEEK, RECORD DAYS.)	1.....Hours 2.....Days 3..... Weeks 99. Don't know	
505	Who visited the baby for the first time after delivery in order to assess health status?	<u>Health personnel</u> Doctor 1 Nurse 2 Midwife 3 Health officer 4 health Extension worker.....5 <u>Other person</u>	

		traditional birth attendant 6 other (specify).....7	
506	Where was the baby visited for the first time after delivery for his health status?	<u>Home</u> Her Home.....1 Other home 2 <u>Public sector</u> Government Hospital 3 Government health center...4 Government health post.....5 Other public sector(specify)...6 <u>NGO</u> Health facility.7 Other NGO health facility8 <u>Private medical sector</u> Private hospital.....9 Private clinic.....10 Other private medical sector.....11	
507	Did any health care provider or a traditional birth attendant visit the baby for the second time after delivery for assessing health status of the baby?	1. Yes 0. No	
508	How long after the birth of (baby) did the second visit take place? (if <24 hr. in hours ,if >24 in days)	In.....Hours after birth In Days after birth	
509	Who visited on (baby)'s health for the second the time?	<u>Health personnel</u> Doctor 1 Nurse 2 Midwife 3 Health officer 4 health Extension worker.....5	

		<u>Other person</u> traditional birth attendant 6 other (specify).....77	
510	Where the second visit did takes place after delivery?	<u>Home</u> Her Home.....1 Other home 2 <u>Public sector</u> Government Hospital 3 Government health center....4 Government health post.....5 Other public sector(specify)...6 <u>NGO</u> Health facility.7 Other NGO health facility8 <u>Private medical sector</u> Private hospital.....9 Private clinic.....10 Other private medical sector.....11	
511	Did any health care provider or a traditional birth attendant visit the baby for the third time after delivery for assessing health status of the baby??	1.yes 0.No	
512	How long after the birth of (baby) did the second visit take place? (if <24 hr. in hours, if >24 in days)	1..... Hours after birth 2..... Days after birth 3..... Weeks after birth 99. Don't know	

513	Who visited on (baby)'s health for the third time after delivery?	<u>Health personnel</u> Doctor 1 Nurse 2 Midwife 3 Health officer 4 health Extension worker.....5 <u>other person</u> traditional birth attendant 6 other (specify).....77	
514	Where the third visit did takes place after delivery?	<u>Home</u> Her Home.....1 Other home 2 <u>Public sector</u> Government Hospital 3 Government health center....4 Government health post.....5 Other public sector(specify)...6 <u>NGO</u> Health facility.7 Other NGO health facility8 <u>Private medical sector</u> Private hospital.....9 Private clinic.....10 Other private medical sector.....11	
515	Did any health care provider or a traditional birth attendant visit you for the first time after delivery for assessing your health status?	1.Yes 0.No	
516	How long after delivery was the first visit takes place? (IF LESS THAN ONE DAY, RECORD HOURS; IF LESS THAN ONE WEEK, RECORD DAYS.)	In.....Hours after birth InDays after birth	

517	Who visited on (baby)'s health for the third time after delivery?	<u>Health personnel</u> Doctor 1 Nurse 2 Midwife 3 Health officer 4 health Extension worker.....5 <u>Other person</u> traditional birth attendant 6 other (specify).....7	
518	What was done to the baby's health during the visits' (DON'T READ THE OPTIONS)	1.Measure temperature of the baby 2.Examine the cord 3.Counsel you on danger signs for newborns 4.Counsel you on breastfeeding 5.Observe (NAME) breastfeeding Other (specify) 77_____	
519	Where the first visit did takes place after delivery?	<u>Home</u> Her Home.....1 Other home 2 <u>Public sector</u> Government Hospital 3 Government health center...4 Government health post.....5 Other public sector(specify)...6 <u>NGO</u> Health facility.7 Other NGO health facility8 <u>Private medical sector</u> Private hospital.....9 Private clinic.....10 Other private medical sector.....11	
520	What was done at the first visit regarding your health? (DON'T READ THE OPTIONS)	1.measuring (Temp.,BP) 2.Examining for bleeding(vaginal ,utrine) 3.breast feeding	

		4.For family planning 5.Nutrition and personal hygiene 77.other specify_____	
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Annex V. Questionnaire: Amharic version.

የአማርኛ መጠይቅ

አዲስ አበባ ዩኒቨርሲቲ ጤናሣይንስ ፋካሊቲ የህብረተሰብ ጤና አጠባበቅ ትምህርት ክፍል

የመጠይቁ ቁጥር _____ ቀበሌ _____

ሰላም :- እንደምን አሉ ; እኔ ----- እባላለሁ:: ዛሬ እዚህ የመጣሁት ይህን ጥናት የሚያካሂዱ የ አዲስ አበባ ዩኒቨርሲቲ የ ህብረተሰብ ጤና ትምህርት የስነ ተዋልዶ ጤና ክፍል ተማሪ ሰብላ ዘነበን በመወከል ለድህረ ምረቃ ት/ት መመረቂያ ጥናት መረጃ ለመሰብሰብ ነው:: ጥናቱን ለማካሄድ ከአ.አ ዩኒቨርሲቲ ፍቃድ ተገኝቶአል ፤ ጥናቱ በቡታጅራ በዚ አንድ አመት ውስጥ የወለዱ እናቶችን ያሳትፋል ፤ የጥናቱ ዋና አላማ እናቶች ስለጨቅላ ህፃናት አደገኛ ምልክቶች ያላቸውን እውቀት እና የህፃናት የድህረ ወሊድ አገልግሎት አጠቃቀም መካከል ያለውን ግንኙነት ማጥናት ነው::

ወደ ቃለ መጠይቁ ከመሄዳችን በፊት የተሳታፊዎችን ፈቃደኝነት መጠየቂያ ቅጽ

ይህ መጠይቅ ለወለዱ እናቶች ስለማህበራዊ፣ከወሊድ በኋላ የሚሰጥን አገልግሎት ፣ ስለ አደገኛ የጨቅላ ህፃናት ምልክቶች ያላቸውን ግንዛቤ ፣ ስለ ህፃናት ድህረ ወሊድ ክትትል እና አጠቃቀም ያላቸውን ግንዛቤ እና ተያያዥ ጉዳዮች በተመለከተ መረጃ ለመሰብሰብ የተዘጋጀ ነው። የጥናቱ ተሳታፊ እናቶችን የተለዩት በእጣ ነው:: የዚ ጥናት ተሳታፊ በመሆኖት ቀጥተኛ የሆነ የብር እና የመሳሰሉትን ጥቅሞች አያገኙም ፤ ጥናቱ በእርሶ ላይ ምንም አይነት ጉዳት አይኖረውም፣ከእርሶ የምናገኘው ማንኛውንም መልስ በሚስጥር እንደምንጠብቅ ቃል እንገባሎታለን::ከዚህ ጥናት ጋር በተያያዘ በማንኛውም ቦታ እና ጊዜ ስሞ እንደማይዘገብና እንደማይጠቀስም ልንገልጽልዎ እንወዳለን። ለጥናቱ የምናሳትፍዎ የእርሶን ሙሉ ፈቃደኝነት ስናገኝ ብቻ ነው:: በመጠይቁ ላለመሳተፍ ወይም በመጠይቁ ሂደት ሊመልሱት የማይፈልጉትን ጥያቄዎችን ያለመመለስ

መብትዎ የተጠበቀ ነው፤ እንዲሁም ቃለመጠይቁን ማቆረጥም ይችላሉ ፣ ሆኖም የእርሶ መልስ ለጥናቱ አስፈላጊ በመሆኑ እንዳያቆርጡ ይበረታታሉ። ቃለ መጠይቁ ለ25 ደቂቃ ያክል ነው።

ስለ ጥናቱ ተጨማሪ መረጃ ከ ፈለጉ የ ጥናቱን ዋና አስገኚ ያነጋግሩ

አድራሻ፣ ስብሰባ ዘነበ 0912934485

በመጠይቁ ለመሳተፍ ፈቃደኛ ኖት

አዎ ፈቃደኛ ነኝ ----- መጠይቁ ይቀጥላል።

የለም ፈቃደኛ አይደለሁም ከተባለ ወደ ሌላ ተሳታፊ መሸጋገር ምክንቱን በመግለጽ.....

የተሳታፊ ፊርማ ቀን.....

የመረጃ ሰብሳቢው ስም ----- ፊርማ ----- መጠይቁ የተሞላበት ቀን -----

የተቆጣጣሪው ስም ----- ፊርማ ----- መጠይቁ የተሞላበት ቀን -----

የመጠይቁ ውጤት 1. ሙሉ በሙሉ የተሟላ 2. በከፊል የተሟላ 3. ምንም ያልተሟላ

ክፍል አንድ - መሰረታዊ የግል ሁኔታዎች

ተ.ቁ	ጥያቄ	አማራጭ መልስ	መለያ
101	የተወለድሽበት ወር እና ዓ.ም መቼ ነውወር.....ዓ.ም	
102	እድሜሽ ስንት ነው ?	-(በሙሉ አመት).....	
103	የትምህርት ደረጃሽ እስከ ስንት ነው?	<ol style="list-style-type: none"> 1. ያልተማረች (ማንበብ ና መፃፍ የማትችል) 2. ማንበብ ና መፃፍ የምትችል(መደበኛ ት/ት ያልተማረች) 3. የመጀመሪያ ደረጃ (1-8ኛ ክፍል) 4. ሁለተኛ ደረጃ (9-12ኛ) 5. የተወሰነ የኮሌጅ (የቴክኒክናሙያ)ት/ት ያላት 6. ኮሌጅ ያጠናቀቀች ወይም ከዛ በላይ 99.አላቅም	
104	መደበኛ ስራሽ ምንድን ነው?	<ol style="list-style-type: none"> 1. የቤት እመቤት 2. ገበሬ 3. ነጋዴ 4. የመንግስት ሰራተኛ 5. የግል ሰራተኛ 77.ሌሎች /ይገለጹ/	
105	አሁን ያለሽበት የጋብቻ ሁኔታ;	<ol style="list-style-type: none"> 1.ያላገባች 2.ያገባች 3.የፈታች 4.ባል የሞተባች 	
106	የባለቤትሽ የትምህርት ሁኔታ /ደረጃ/	<ol style="list-style-type: none"> 1. ያልተማረ(ማንበብናመፃፍየማይችል) 2. ማንበብናመፃፍየሚችል(መደበኛ ት/ት ያልተማረ) 3. የመጀመሪያደረጃ (ከ1ኛ-8ኛክፍል) 4. ሁለተኛደረጃ (ከ9ኛ-12ኛክፍል) 5. የተወሰነ የኮሌጅ (የቴክኒክናሙያ)ት/ት ያለው 6. ኮሌጅ ያጠናቀቀ ወይም ከዛ በላይ 99. አላቅም	
107	የባለቤትሽ / የባለቤቶ/ መደበኛ ስራ ምንድን ነው?	1. ምንም ስራ የሌለ	

		2. ገበሬ 3. ነጋዴ 4. የመንግስት ቅጥር 5. በግሉ እየሰራ ያለ 6. ሌሎች /ይገለጽ/	
108	ሃይማኖትሽ ምንድነው ?	1.አርቶዶክስ 2.እስልምና 3.ካቶሊክ 4.ፕሮቴስታንት 77.ሌላ (ይጠቀስ) _____	
109	ከሬዲዮ ስለእናቶች እና ህፃናት የጤና መረጃ ትሰሚያለሽ?	1. አዎ 0.አልሰማም	መልሱ -0 ከሆነ ወደ ጥያቄ ቁ-111
110	በወር ውስጥ ስንት ጊዜ ትሰሚለሽ	1.አንዴ 2.ሁለት 3.አራት 77.ሌላ.....	
111	ከቴሌቪዥን ስለእናቶች እና ህፃናት የጤና መረጃ ታያለሽ?	1.አዎ 0. አላይም	መልሱ - 0 ከሆነ ወደ ክፍል 2.
112	በወር ውስጥ ስንት ጊዜ ታያለሽ?	1.አንዴ 2.ሁለት 3.አራት 77.ሌላ.....	

ክፍል 2:-የቤተሰብን የሀብት ደረጃ የተመለከቱ ጥያቄዎች

201	ቤተሰቡ የመጠጥ ውሀ የሚጠቀመው ከየት ነው? (በዋናነት የሚጠቀሙትን)	1. የቧምቧ ውሀ 2. የህዝብቧምቧ(በእጅማሽከርከር)የሚሰራ ውሀ 3. የተጠበቀ የጉድጓድ ውሃ	
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		<p>4. ያልተጠበቀ የጉድጓድ ውሃ</p> <p>5. የተጠበቀ የምንጭ ውሀ</p> <p>6. ያልተጠበቀ የምንጭ ውሀ</p> <p>7. ወንዝ፣ኩሬ.ኸረት፣ግድብ</p> <p>77. ሌላ (ይገለጽ) _____</p>	
202	<p>ለቤት ውስጥ አገልግሎት፣ለምግብ መስሪያና ለመታጠቢያ የሚሆን ውሀ ከየት ነው የምትጠቀሙት ከየት ነው ? (በዋናነት የሚጠቀሙትን)</p>	<p>1. የቧምቧ ውሀ</p> <p>2. የህዝብቧምቧ(በእጅማሽከርከር)የሚሰራ ውሃ</p> <p>3. የተጠበቀ የጉድጓድ ውሃ</p> <p>4. ያልተጠበቀ የጉድጓድ ውሃ</p> <p>5. የተጠበቀ የምንጭ ውሀ</p> <p>6. ያልተጠበቀ የምንጭ ውሀ</p> <p>7. ወንዝ፣ኩሬ.ኸረት፣ግድብ</p> <p>77. ሌላ (ይገለጽ)_____</p>	
203	<p>ከነዚህ ውስጥ በቤትዎ ውስጥ የትኛው ይገኛል ?(አንድ በአንድ ጠይቅ፣ ከ 1 በላይ መልስ ይቻላል)</p>	<p>ሀ. መብራት 1.አለ 0. የለም</p> <p>ለ. ራዲዮ 1.አለ 0. የለም</p> <p>ሐ. ቴሌቪዥን 1.አለ 0. የለም</p> <p>መ. ከምጥውተር 1.አለ 0. የለም</p> <p>ሠ. የማይንቀሳቀስ የቤት ስልክ 1.አለ 0. የለም</p> <p>ረ. ፍሪጅ/ማቀዝቀዣ 1.አለ 0. የለም</p> <p>ሰ. የኤሌትሪክ ምጣድ 1.አለ 0. የለም</p>	
204	<p>ከቤተሰብ አባል ውስጥ እነዚህ ያሉት አለ?</p>	<p>ሀ. ሰዓት 1.አለ 0. የለም</p> <p>ለ. ሞባይል 1.አለ 0. የለም</p> <p>ሐ. ብስክሌት 1.አለ 0. የለም</p> <p>መ. ሞተር ሳይክል 1.አለ 0. የለም</p> <p>ሠ. ጋሪ 1.አለ 0. የለም</p> <p>ረ. ባጃጅ 1.አለ 0. የለም</p> <p>ሰ. መኪና 1.አለ 0. የለም</p>	
205	<p>የቤተሰብ አባላት በአብዛኛው ጊዜ የሚጠቀሙበት መጠጫዎች ቤት ምን አይነት ነው? (ያለውን በዓይን ተመልክቶ መመዝገብ)</p>	<p>1. ውሃ ያለው ከፍሳሽ ማስወገጃ ጋር የተያያዘ</p> <p>2. ውሃ ያለው ወደ ታንክ የሚገባ</p> <p>3. ውሃ ያለው ወደጓሮ ጉድጓድ የሚፈስ</p> <p>4. ውሃ ያለው ወደማይታወቅ ቦታ የሚፈስ</p> <p>5. በስሚንቶ/ሊሽ የተሰራ ሽንት ቤት</p> <p>6. ክፍት የሆነ ሽንት ቤት</p> <p>7. አየር ማስወጫ/ማስተንፈሻ ትቦ ያለው ሽንት ቤት</p>	<p>መልሱ 8 ከሆነ ወደ ጥያቄ ቁጥር</p>

		8. መጻፍት የለም/ሜዳላይ 77.ሌላ(ይገለጽ)-----	
206	መጻፍት ቤቱ የግል ነው ወይስ የጋራ	1.የግል 2.የጋራ	
207	የቤት ውስጥ መሬት/ወለል ከምንድነው የተሰራው? (ያለውን በዓይን ተመልክቶ መመዝገብ)	1. አፈር/አሸዋ 2. ወፍራም እንጨት 3. ዘንባባ/ቀርከሀ 4. ሴራሚክ 5. ሲሚንት 77.ሌላ(ይገለጽ)_____	
208	የቤት ውስጥ ጣሪያ ከምንድነው የተሰራው? (ያለውን በዓይን ተመልክቶ መመዝገብ)	1. የሰር/ገለባ 2. ከቅጠል፣ጭቃ 3. ጣውላ፣ካርቶን 4. ቆርቆሮ፣ብረት፣ሲሚንት፣ሴራሚክ 77. ሌላ(ይገለጽ)-----	
209	የቤት ውስጥ ግድግዳ ከምንድነው የተሰራው? (ያለውን በዓይን ተመልክቶ መመዝገብ)	1. የቀርከሀ/ሰጠራ ግድግዳ 2. እንጨት ከጭቃ ጋር 3. ድንጋይ በጭቃ 4. ከምግብ/ቸጥታ 5. ሲሚንት፣ጡብ፣ድንጋይ በሲሚንት፣በጠጠር 77. ሌላ(ይገለጽ)-----	
210	በቤቱ ውስጥ ስንት የመጃታ ክፍል አለ ?	_____ በቁጥር	

ክፍል ሦስት፤ ሥነ ተዋልዶን በተመለከተ ጥያቄ

301	አሁን በጠቅላላ በህይወት ስለነበረሽ እርግዝና እጠይቅሻለሁ።እስካሁን ድረስ ስንት እርግዝና ነበረሽ ?	የእርግዝና ብዛት በቁጥር	
302	መጨረሻ ላይ የወለድሽውን ልጅ ስታረግዢ እርግዝናውን ፈልገሽው ነው;	1.አዎ 0.አይደለም	
303	አሁን በህይወት ስለነበረሽ ወሊድ እጠይቅሻለሁ፤ እስከ አሁን ድረስ (የመጨረሻውን) ጨምሮ ስንት ልጆች ወልደሻል;	የተወለዱ ልጆች ብዛት.....	
304	እስከ አሁን ድረስ በህይወት ውርጃ (ፅንሱ ገወር ሳይሞላ ሲጠፋ) አጋጥሞሽ ያውቃል?	1.አዎ 0.አይደለም	መልሱ--0- ከሆነ ወይ-- 306
305	መልሱ አዎ ከሆነ ስንት ጊዜ?	-----	

306	በተወለደ በ 28 ቀን ውስጥ የሞተብሽ ልጅ አለ;	1. አዎ 0.የለም	መልሱ ..0 ከሆነ ወደ 308
307	ከተወለዱ በ ሀያ ስምንት ቀናቸው የሞቱ ልጆች ብዛት?	ብዛት በቁጥር -----	
308	በመጨረሻ እርግዝናሽ ወቅት የወሊድ ክትትል ነበረሽ?	1. አዎ 0. የለኝም	መልሱ የለም ከሆነ ወደ ክፍል 4
309	ማን ነበር ክትትሉን ያደረገልሽ;	<u>የጤና ባለሙያ</u> ሀኪም(ዶክተር).....1 ነርስ.....2 አዋላጅ ነርስ.....3 የ ጤና መኮንን.....4 የጤና ኤክስቴንሽን ባለሙያ.....5 <u>ሌላ ሰው</u> የልምድ አዋላጅ.....6 ሌላ (ጥቀሽ).....7	
310	የት ነበር ክትትሉ የነበረው;	<u>ቤት</u> የራስ ቤት.....1 ሌላ ቤት.....2 <u>የመንግስት ተቋም</u> የመንግስት ሆስፒታል3 የመንግስት ጤና ጣቢያ.....4 የመንግስት ጤና ኬሊ.....5 ሌላ የመንግስት ተቋም(ካለጥቀስ).....6 <u>መንግስታዊ ያልሆነ ተቋም</u> የጤና ተቋም.....7 ሌላ መንግስታዊ ያልሆነ የጤና ተቋም.....8	

		<p><u>የግል የህክምና ተቋም</u></p> <p>የግል ሆስፒታል.....9</p> <p>የግል ክሊኒክ.....10</p> <p>ሌላ የግል የህክምና ተቋም11</p>	
311	የመጀመሪያ ክትትልሽን ስትጀምረ ስንት ሳምንትሽ ነበር?	<p>-----ሳምንት</p> <p>99.አለቅም</p>	
312	ስንት ጊዜ ነው ክትትል የነበረሽ?	<p>1.አንድ.</p> <p>2.ሁለት</p> <p>3.ሦስት</p> <p>4.አራት ና ከዛ በላይ</p>	

ክፍል አራት፤ በህፃናት ላይ የሚታዩ አደገኛ ምልክቶች እና በድህረ ወሊድ ላይ ያለን እውቀት መመዘኛ ጥያቄ

401	ስለጨቅላ ህፃናት (ከ28 ቀን በታች ስለሆኑ ህፃናት) አደገኛ የህመም ምልክቶች ሰምተሽ ታውቂያለሽ?	<p>1. አዎ</p> <p>0. የለም</p>	የለም ከሆነ ወይ....403
402	የጨቅላ ህፃናት (ከ28ቀንበታችየሆኑህፃናት) አደገኛ የህመም ምልክቶች የምትያቸውን ጥቀሽ? (አማራጭ መልሶቹን አያንብቡ)	<p>1.ምግብ መቀነስ</p> <p>2.ከፍተኛ የሆነ ሙቀት(ትኩሳት)</p> <p>3.የሰውነት ሙቀት መቀነስ(መቀዝቀዝ)</p> <p>4.መልፈስፈስ</p> <p>5.መንቀጥቀጥ</p> <p>6.ቶሎ ቶሎ መተንፈስ</p> <p>7.የእጅ እና እግሩ ቢጨመሩ</p> <p>8.የእትብት መቅለት(መግል መያዝ)</p> <p>77.ሌላ ካለ.....</p>	
403	ህፃኑ ጡት መጥባት ከቀነሰ(ካቆመ) ለህጻኑ የአደገኛ የህመም ምልክት ነው?	1.አዎ 2.አይደለም	
404	የህፃኑ ሙቀት መጨመር አደገኛ የህመም ምልክት ነው?	1.አዎ 2.አይደለም	
405	የህፃኑ የሰውነት ሙቀት መቀነስ(መቀዝቀዝ) የ አደገኛ የህመም ምልክት ነው?	1.አዎ 2.አይደለም	
406	የጨቅላ ህፃን አተነፋፈስ ቶሎቶሎ (ከወትሮው በተለየ ሁኔታ) መሆን አደገኛ የህመም ምልክት ነው?	1.አዎ 2.አይደለም	

407	ህፃኑ በተወለደ በአንድ ቀን ውስጥ የሰውነቱ ቢጫ መሆን ፣ ወይም በማንኛውም ጊዜ የእጅ እና እግሩ ቢጫመሆን ለ ህፃኑ አደገኛ የህመም ምልክት ነው?	1.አዎ 2.አይደለም	
408	ህፃኑ ለረጅም ሰአታት ከእንቅልፍ በተለየ ሁኔታ በራሱ ምንም አይነት እንቅስቃሴ ካላሳየ አደገኛ የህመም ምልክት ነው?	1.አዎ 2.አይደለም	
409	በ ህፃኑ ላይ አልፎ አልፎ የመንቀጥቀጥ ምልክት ከ ታየ አደገኛ የህመም ምልክት ነው?	1.አዎ 2.አይደለም	
410	እትብቱ ላይ የመቅለት ወይም መግል ከያዘ አደገኛ የህመም ምልክት ነው?	1.አዎ 2.አይደለም	
411	አደገኛ የሆኑ የ ህመም ምልክቶችን ከ የት ነው የሰማሽው	1.ከጤና ተቃዎ 2.ከጓደኞቼ 3.ከቴሌቭዥን 4.ሬድዮ 77.ሌላካለ ጥቀስ	
412	ለህፃናት ከተወለዱ በኋላ አደገኛ ወቅት(የተለየ እንክብካቤ የሚያስፈልጋቸው) መቼ ነው?	----- 99.አላውቅም	
413	ህፃናት ከተወለዱ በኋላ እስከ 42 ቀናቸው ከ ሚሠጣቸው የጤና እንክብካቤ(አገልግሎት) የትኞቹን ታውቂያለሽ?	1.ክትባት 2.የሰውነት ሙቀት መለካት 3.ክብደትመለካት 4. ጡት ቶሎ እንዲጀምር ማድረግ 77.ሌላ ካለ ይጠቀስ----- 99.አላውቅም	
414	ለህፃናት የድህረወሊድ አገልግሎት (ማለትም ከተወለዱ ጀምሮ ለህፃናት የሚሰጥ የህክምናክትትል) የሚሰጣቸው መቼ ነው?	----- 99.አላውቅም	

415	<p>ለሕፃናት የድህረ ወሊድ አገልግሎት የሚያገኙት(የሚሰጣቸው) የት ነው?</p>	<p><u>ቤት</u></p> <p>የራስ ቤት.....1</p> <p>ሌላ ቤት.....2</p> <p><u>የመንግስት ተቋም</u></p> <p>የመንግስት ሆስፒታል3</p> <p>የመንግስት ጤና ጣቢያ.....4</p> <p>የመንግስት ጤና ኬሊ.....5</p> <p>ሌላ የመንግስት ተቋም(ካለ ጥቀስ).....6</p> <p><u>መንግስታዊ ያልሆነ ተቋም</u></p> <p>የጤና ተቋም.....7</p> <p>ሌላ መንግስታዊ ያልሆነ የጤና ተቋም.....8</p> <p><u>የግል የህክምና ተቋም</u></p> <p>የግል ሆስፒታል.....9</p> <p>የግል ክሊኒክ.....10</p> <p>ሌላ የግል የህክምና ተቋም.....11</p>	
416	<p>ህፃናት የድህረ ወሊድ አገልግሎት ማግኘት እንዳይችሉ እንቅፋት የሆነ ነገር አለ?</p>	<p>1.አዎ</p> <p>2.የለም</p>	<p>መልሱ</p> <p>2...ከሆነ ወደ..501</p>
417	<p>አዎ ከሆነ መልስሽ/ሶት ምንድን ናቸው ?</p>	<p>1. ልማዳዊ(ባህላዊ እምነቶች)</p> <p>2. የጤና ተቋም መራቅ</p> <p>3. ሀይማኖቱ ስለማይፈቅድ</p> <p>4. የጤና ኬሊ መዘጋት</p> <p>77. ሌላ ካለ ይጠቀስ-----</p>	

ክፍል አምስት ፤ የድህረ ወሊድ አገልግሎት ስለመጠቀም

501	<p>የመጨረሻ ልጅሽን ስትወልጁ ያዋለደሽ ሰው ማነው?</p>	<p><u>የጤና ባለሙያ</u></p> <p>ሀኪም.....1</p>	
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		ነርስ.....2 አዋላጅ ነርስ.....3 የጤና መኮንን.....4 የጤና ኤክስቴንሽን ባለሙያ.....5 <u>ሌላ ሰው</u> የልምድ አዋላጅ.....6 ሌላ (ጥቀሽ).....7 ማንም አልነበረም.....8	
502	የት ነው የመጨረሻ ልጅሽን የወለድሽው?	<u>ቤት</u> የራስ ቤት.....1 ሌላ ቤት.....2 <u>የመንግስት ተቋም</u> የመንግስት ሆስፒታል3 የመንግስት ጤና ጣቢያ.....4 የመንግስት ጤና ኬላ.....5 ሌላ የመንግስት ተቋም(ካለ ጥቀስ).....6 <u>መንግስታዊ ያልሆነ ተቋም</u> የጤና ተቋም.....7 ሌላ መንግስታዊ ያልሆነ የጤና ተቋም.....8 <u>የግል የህክምና ተቋም</u> የግል ሆስፒታል.....9 የግል ክሊኒክ.....10 ሌላ የግል የህክምና ተቋም....11	
503	ህፃኑን ከተወለደ በኋላ ለመጀመሪያ ጊዜ ማንኛውም ሰው ከጤና ባለሙያ/ጤና ኤክስቴንሽን ሰራተኛ ወይም ከሴቶች የልማት ቡድን መሀል የ ህፃኑን ጤንነት ለመጠየቅ የጎበኘው ነበር?	1. አዎ 0.የለም	

504	ህፃኑን ከተወለደ ከምን ያህል ጊዜ በኋላ ነበር ለመጀመሪያ ጊዜ ህፃኑ የተገባቸው?	<p>ከ _____ ሰዓት በኋላ</p> <p>ከ _____ ቀን በኋላ</p>	
505	ህፃኑን ከተወለደ በኋላ ለመጀመሪያ ጊዜ ህፃኑን የገባቸው ማን ነበር?	<p><u>የጤና ባለሙያ</u></p> <p>ሀኪም(ዶክተር).....1</p> <p>ነርስ.....2</p> <p>አዋላጅ ነርስ.....3</p> <p>የ ጤና መኮንን.....4</p> <p>የጤና ኤክስቴንሽን ባለሙያ.....5</p> <p><u>ሌላ ሰው</u></p> <p>የልምድ አዋላጅ.....6</p> <p>ሌላ (ጥቀሽ)..... 7</p>	
506	ህፃኑን ከተወለደ በኋላ ለመጀመሪያ ጊዜ ለህፃኑ ጉብኝት የተደረገው የት ነው ?	<p><u>ቤት</u></p> <p>የራስ ቤት.....1</p> <p>ሌላ ቤት.....2</p> <p><u>የመንግስት ተቋም</u></p> <p>የመንግስት ሆስፒታል3</p> <p>የመንግስት ጤና ጣቢያ.....4</p> <p>የመንግስት ጤና ኬላ.....5</p> <p>ሌላ የመንግስት ተቋም(ካለ ጥቀስ).....6</p> <p><u>መንግስታዊ ያልሆነ ተቋም</u></p> <p>የጤና ተቋም.....7</p> <p>ሌላ መንግስታዊ ያልሆነ የጤና ተቋም.....8</p> <p><u>የግል የህክምና ተቋም</u></p> <p>የግል ሆስፒታል.....9</p>	

		<p>የግል ክሊኒክ.....10</p> <p>ሌላ የግል የህክምና ተቋም....11</p>	
507	<p>ህፃኑን ከተወለደ በኋላ ለሁለተኛ ጊዜ ማንኛውም ሰው ከጤና ባለሙያ/ጤና ኤክስቴንሽን ሰራተኛ ወይም ከሌሎች የልማት ቡድን መሀል የ ህፃኑን ጤንነት ለመጠየቅ የጎበኛት ነበር?</p>	<p>1.አዎ</p> <p>2.የለም</p>	<p>መልሱ የለም ከሆነ ወደ ጥያቄ ቁ-515</p>
508	<p>ህፃኑን ከተገለገሉ ከምን ያህል ጊዜ በኋላ ነበር ለሁለተኛ ጊዜ ህፃኑ የተጎበኘው?</p>	<p>በ _____ ቀናት ውስጥ</p> <p>በ _____ ሳምንታት ውስጥ</p>	
509	<p>ህፃኑን ከተገለገሉ በኋላ ለሁለተኛ ጊዜ ህፃኑን የጎበኘው ማን ነበር?</p>	<p><u>የጤና ባለሙያ</u></p> <p>ሀኪም(ዶክተር).....1</p> <p>ነርስ.....2</p> <p>አዋላጅ ነርስ.....3</p> <p>የ ጤና መኮንን.....4</p> <p>የጤና ኤክስቴንሽን ባለሙያ.....5</p> <p><u>ሌላ ሰው</u></p> <p>የልምድ አዋላጅ.....6</p> <p>ሌላ (ጥቀሽ).....</p>	
510	<p>ህፃኑን ከተገለገሉ በኋላ ለሁለተኛ ጊዜ ለህፃኑ ጉብኝት የተደረገው የት ነው ?</p>	<p><u>ቤት</u></p> <p>የራስ ቤት.....1</p> <p>ሌላ ቤት.....2</p> <p><u>የመንግስት ተቋም</u></p> <p>የመንግስት ሆስፒታል3</p> <p>የመንግስት ጤና ጣቢያ.....4</p> <p>የመንግስት ጤና ኬሊ.....5</p>	

		ሌላ የመንግስት ተቋም(ካለ ጥቀስ).....6 <u>መንግስታዊ ያልሆነ ተቋም</u> የጤና ተቋም.....7 ሌላ መንግስታዊ ያልሆነ የጤና ተቋም.....8 <u>የግል የህክምና ተቋም</u> የግል ሆስፒታል.....9 የግል ክሊኒክ.....10 ሌላ የግል የህክምና ተቋም....11	
511	ህፃኑን ከተገለገሉ በኋላ ለሶስተኛ ጊዜ ማንኛውም ሰው ከጤና ባለሙያ/ጤና ኤክስቴንሽን ሰራተኛ ወይም ከሌሎች የልማት ቡድን መሀል የ ህፃኑን ጤንነት ለመጠየቅ የጎበኞት ነበር?	1.አዎ 2.የለም	መልሱ የለም ከሆነ ወደ ጥያቄ ቁ-515
512	ህፃኑን ከተገለገሉ ከምን ያህል ጊዜ በኋላ ነበር ለሶስተኛ ጊዜ ህፃኑ የተጎበኘው?	በ_____ ቀናት ውስጥ በ_____ ሳምንታት ውስጥ	
513	ህፃኑን ከተገለገሉ በኋላ ለሶስተኛ ጊዜ ህፃኑን የጎበኘው ማን ነበር?	<u>የጤና ባለሙያ</u> ሀኪም(ዶክተር).....1 ነርስ.....2 አዋላጅ ነርስ.....3 የ ጤና መኮንን.....4 የጤና ኤክስቴንሽን ባለሙያ.....5 <u>ሌላ ሰው</u> የልምድ አዋላጅ.....6 ሌላ (ጥቀሽ).....	
514	ህፃኑን ከተገለገሉ በኋላ ለሶስተኛ ጊዜ ለህፃኑ ጉብኝት የተደረገው የት ነው ?	<u>ቤት</u> የራስ ቤት.....1	

		ሌላ ቤት.....2 <u>የመንግስት ተቋም</u> የመንግስት ሆስፒታል3 የመንግስት ጤና ጣቢያ.....4 የመንግስት ጤና ኬሌ.....5 ሌላ የመንግስት ተቋም(ካለ ጥቀስ).....6 <u>መንግስታዊ ያልሆነ ተቋም</u> የጤና ተቋም.....7 ሌላ መንግስታዊ ያልሆነ የጤና ተቋም.....8 <u>የግል የህክምና ተቋም</u> የግል ሆስፒታል.....9 የግል ክሊኒክ.....10 ሌላ የግል የህክምና ተቋም....11	
515	በህፃኑ ጉብኝት ወቅት የህፃኑን ጤና በተመለከተ ም ተደረገለት (አማራጭ መልሶችን አያንብቡ)	1.እትብቱን አይቶታል 2.የህጻኑን (ስሙ) ሙቀት መለካት 3.ስለጨቅላ ህጻናት አደገኛ ምልክቶች ትምህርት 4.ስለ ጡት አጠባብ ትምህርት ተሰቶሽ ነበር 5.የህፃኑን ጡት አጠባብ ተመልክተዋል 6.ሌላ ካለ-----	
516	አሁን ህፃኑን ከተገለገሉ በኋላ ለ እርሶ ስለተደረገ የጤና እንክብካቤ እንጠይቆታለን። ህፃኑን ከተገለገሉ በኋላ ለመጀመሪያ ጊዜ ማንኛውም ሰው ከጤና ባለሙያ/ጤና ኤክስቴንሽን ሰራተኛ ወይም ከሌሎች የልማት ቡድን መሀል የ እርሶን ጤንነት ለመጠየቅ የጎበኞት ነበር?	1.አዎ 2.የለም	
517	ህፃኑን ከተገለገሉ ከምን ያህል ጊዜ በኋላ ነበር ለመጀመሪያ ጊዜ የተጎበኙት ?	በ_____ ሰዓታት በ_____ ቀናት ውስጥ በ_____ ሳምንታት ውስጥ	
518		<u>የጤና ባለሙያ</u>	

	<p>ህፃኑን ከተገለገሉ በኋላ ለመጀመሪያ ጊዜ ጉብኝት የተደረገሎት የት ነው ?</p>	<p>ሀኪም(ዶክተር).....1 ነርስ.....2 አዋላጅ ነርስ.....3 የ ጤና መኮንን.....4 የጤና ኤክስቴንሽን ባለሙያ.....5 <u>ሌላ ሰው</u> የልምድ አዋላጅ.....6 ሌላ (ጥቀሽ).....</p>	
519	<p>ህፃኑን ከተገለገሉ በኋላ ለመጀመሪያ ጊዜ ጉብኝት የተደረገሎት የት ነው ?</p>	<p><u>ቤት</u> የራስ ቤት.....1 ሌላ ቤት.....2 <u>የመንግስት ተቋም</u> የመንግስት ሆስፒታል3 የመንግስት ጤና ጣቢያ.....4 የመንግስት ጤና ኬሊ.....5 ሌላ የመንግስት ተቋም(ካለ ጥቀስ).....6 <u>መንግስታዊ ያልሆነ ተቋም</u> የጤና ተቋም.....7 ሌላ መንግስታዊ ያልሆነ የጤና ተቋም.....8 <u>የግል የህክምና ተቋም</u> የግል ሆስፒታል.....9 የግል ክሊኒክ.....10 ሌላ የግል የህክምና ተቋም.....11</p>	
520	<p>ህፃኑን ከተገለገሉ በኋላ ለመጀመሪያ ጊዜ ጉብኝት ሲደረግሎት የጉብኝት ሰው የእርሶን ጤና በተመለከተ ምን አደረገልዎት ?</p>	<p>1-የሰውነት ሙቀትና የደም ግፊት መለካት 2-የማህጸን ምርመራ(ከፍተኛ የደምመፍሰስ አለመኖሩን)</p>	

	<p>(አማራጭ መልሶችን አያንብቡ)</p>	<p>3-ስለ ጡት ማጥባት</p> <p>4-ስለቤተሰብ ዕቅድ አገልግሎት</p> <p>5-ስለ ተጨማሪ ምግብ ና ስለ ንፅህና አጠባበቅ</p> <p>6.ሌላ ካለ -----</p>	
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Declaration

I, undersigned MPH student hereby declared that this is entirely my original work and I am the sole author of this thesis titled “ Association of maternal knowledge of neonatal danger signs and postnatal care utilization of neonatal services, among mothers in Butajira, Ethiopia.” To the best of my knowledge this thesis contains no material previously published by any other person except where due acknowledgment has been made. All other’s ideas and words used to support my thesis development have been properly cited according to the good scientific practice. This thesis has been accepted as a partial fulfilment of the requirement for the degree of master in Public Health, which has never been presented and submitted in a whole or in part, in this or any other University for the award of degree, diploma or other qualification certificates.

I have attempted to identify all the risks related to this research that may arise in conducting it, obtained relevant ethical/safety approval, and acknowledged my obligations and the rights of participants. This thesis has been submitted in printed and electronic form. I hereby conform that the content of both printed version and electronic version are the same. I understand that the provision of incorrect information may have legal consequences.

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Date of submission: DEC, 2020 Signature : _____

Approval of the Primary Advisor

This thesis work has been submitted for examination with the approval of my University primary Advisor

Name of the Primary Advisor: Mrs. Meselech Assegid (B.Sc., MPH)

Signature _____ Date _____