



ASRAT WOLDEYES HEALTH SCIENCE CAMPUS

SCHOOL OF PUBLIC HEALTH

**ASSESSMENT OF BIRTH PREPAREDNESS AND
COMPLICATION READINESS AND ITS ASSOCIATED
FACTORS AMONG PREGNANT WOMEN AT BEREK
DISTRICT, OROMIA, ETHIOPIA**

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TABLE CONTENT

Table of Contents

Declaration.....	II
ACKNOWLEDGEMENT	III
LIST OF TABLE	VII
ABBREVIATIONS AND ACRONYMS	IX
ABSTRACT.....	X
1. INTRODUCTION	1
1.1 Background.....	1
1.2 Statement of the problem.....	3
1.3 Significance of the study.....	4
2. LITERATURE REVIEW	5
2.1 Magnitude of BPCR.....	5
2.2 Factors associated with BPCR.....	5
2.2.1 Socio-demographic factors	5
2.2.2 Health Service-related factors.....	6
2.2.3 Maternal Health related factors.....	7
2.2.3 Spouse/ Relative factors.....	8
3. OBJECTIVES	10
3.1 General Objective:	10

3.2 Specific Objectives:	10
4. METHODS AND MATERIALS.....	11
4.1 Study Area	11
4.2 Study design and Study period	11
4.3 Population	11
4.3.1 Source population	11
4.3.2 Study population	11
4.4 Inclusion and Exclusion criteria.....	11
4.4.1 Inclusion Criteria	11
4.4.2 Exclusion Criteria	11
4.5 Sample size and sampling Procedure.....	12
4.5.1 Sample size determination	12
4.5.2 Sampling Procedure	13
4.6 Study Variables.....	14
4.6.1 Dependent variables.....	14
4.6.2 Independent Variables	14
4.7 Operational Definitions.....	14
4.8. Data Collection procedure and Instrument	15
4.9 Data quality control.....	15
4.10 Data entry and analysis procedure	15
4.11 Ethical consideration.....	16

5. RESULT	17
5.1 Sociodemographic characteristics of the study population.....	17
5.2 Obstetric history of the respondent	19
5.3 Maternal health service utilization.....	20
5.4 Knowledge of danger signs of obstetric complications	21
5.5 Preparations for birth and its complications	22
5.6 Factors associated with birth preparedness and complication readiness	24
6. DISCUSSION.....	26
7. CONCLUSION AND RECOMMENDATION.....	28
7.1 Conclusion	28
7.2 Recommendation	28
8. REFERENCE.....	29
ANNEX.....	32
ANNEX I: PARTICIPANT INFORMATION SHEET AND CONCENT FORM.....	32
ANNEX II: QUESTIONALRE	34
ANNEX III: QUESTIONALRE	40
ANNEX IV: QUESTIONALRE.....	47

LIST OF TABLE

Table 1 Table 1 Socio-demographic characteristic of respondents	18
Table 2 Obstetric history of respondant among pregnant women	19
Table 3 Maternal health service utilization among pregnant women Berek Woreda.....	20
Table 4 Knowledge of obstetric danger sign among women of reproductive age group berek woreda August ,2022	21
Table 5 5 Practices of respondents on preparation for birth /complication , berek woreda oromia region Ethiopia August 2022.	22
Table 6 Association of selected socio- demographic and obstetric factors of respondents with preparation for birth and its complication, berek woreda ,August ,2022.	25

LIST OF FIGURE

Figure 1 Conceptual framework of birth preparedness and complication readiness	9
Figure 2 Schematic presentation of sampling procedures among pregnant women in Barak Woreda, Oromia region, Ethiopia, 2022.....	13
Figure 3 Magnitude of Birth preparedness and complication readiness Berek woreda, Oromia ,2022.....	23

ABBREVIATIONS AND ACRONYMS

ANC Antenatal Care

AOR Adjusted Odds Ratio

BPCR Birth preparedness and Complication Readiness

CMR Child Mortality Rate

EDHS Ethiopian Demographic Health Survey

MCH Maternal and Child Health

MDG Millennium Development Goals

MMR Maternal Mortality Rate

SDG Sustainable Developmental Goals

UNICEF United Nation Children Fund

WHO World Health Organization

ABSTRACT

Background: Birth preparedness and complication readiness interventions are recommended by world health organization to increase the use of skilled care at birth and to increase the timely use of facility care for obstetric and newborn complications. Hence, lack of advance planning for use of a skilled birth attendant for births, and particularly inadequate preparation for rapid action in the event of obstetric complications, are well documented factors contributing to delay in receiving skilled obstetric care.

Objective: To assess birth preparedness and complication readiness and its associated factors among pregnant women in Berek Woreda, Oromia, Ethiopia, 2022.

Methods: A community based cross sectional study was used in this study. The study period was from June to July 2022. A systematic sampling technique was employed to select the pregnant mothers from the list of their respective kebele health extension workers. Data was collected using standard questionnaire by trained data collectors, checked by supervisors on site and again checked by principles investigator at the end and enter into Epi data version 3.1 and exported to SPSS version 20 for analysis. Binary and Multivariable logistic regression model were applied to identify the independent predictors of birth preparedness and complication readiness. Strength of association was measured using adjusted odds ratio (AOR) with 95% confidence interval.

Result: A total of 354 pregnant women were identified to participate in the study. Husband support, (AOR= 5.42, 95% CI: 1.19,24.71), distance of health facility, (AOR= 0.170, 95% CI: 0.330,0.885), Information about birth preparedness and complication readiness, (AOR= 0.167, 95% CI: 0.450,0.885) ANC follow up, (AOR= 0.189, 95% CI: 0.006,0.526) and pregnant women conferece (AOR= 0.155, 95% CI: 0.043,0.558) had statistically significant association with birth preparedness and complication readiness.

Conclusion: This study showed that the prevalence of birth preparedness and complication readiness was 47.3%.

Key words: Early identification of pregnant women, pregnant women group discussion, Berek woreda.

1. INTRODUCTION

1.1 Background

Birth preparedness and complication readiness interventions are recommended by world health organization to increase the use of skilled care at birth and to increase the timely use of facility care for obstetric and newborn complications. Hence, lack of advance planning for use of a skilled birth attendant for births, and particularly inadequate preparation for rapid action in the event of obstetric complications, are well documented factors contributing to delay in receiving skilled obstetric care(1). The major components of birth preparedness include: selecting a desired place of birth, identifying a skilled provider, saving money, identifying a mode of transportation and arranging blood donors(2).

BPCR is a package to empower women, her family, and the community to promote maternal and neonatal survival. It has been recognized as a standard component of the programs designed to make pregnancy safer. Every pregnant woman faces the risk of sudden, unpredictable complications that could end in death or injury to herself or to her infant. Pregnancy related complications cannot be reliably predicted. Hence, it is necessary to employ strategies to overcome such problems as they arise(3).

.Sustainable Development Goals (SDGs) establish a transformative new agenda for maternal health towards ending preventable maternal mortality, target 3.1 of goal 3 is to reduce the global maternal mortality rate to less than 70 per 100,000 live births by 2030. The SDG also establish a supplementary national target that no country should have an MMR greater than 140 per 100,100 live birth (4). Linear projection based on the trend during the MDG period suggests that Africa including Ethiopia will not meet the SDG target for MMR of 70 per 100,000 live births by 2030; rather the MMR will be around 347 per 100,000 live births.

Increasing institutional deliveries is important for reducing maternal and neonatal mortality. However, access to health facilities is more difficult in rural areas than urban area because of distance, scarce transport and a lack of appropriate facilities(5). Although institutional delivery has been promoted in Ethiopia, home delivery is still common

which is 51% (5). Yet, the lack of timely planning for skilled care for births and inadequate preparation for obstetric complication is common in low-income countries(2).

The Federal Ministry Health (FMOH) strategy to improve service uptake of institutional delivery is early identification of pregnant women and link to ANC1 service and pregnant women group discussion/ pregnant women conference at community and health institution level to reduce maternal mortality by strengthen health seeking of pregnant women.(6).

However, to the best of the researcher's knowledge there is no evidence which supports the association between BPCR and early identification of pregnant women and link to ANC1 service and women group discussion status in Ethiopia. In particular this study considers pregnant women discussion/ conference as a single factor which might affect preparation for birth and its complication.

1.2 Statement of the problem

Maternal mortality continues to be a public health problem globally despite the existence of effective intervention to curb it. In 2017, an estimated 295,000 women died from preventable obstetric complications worldwide, 94% of the death occurring in low-income countries. The sub-Saharan region accounted for 66% of the deaths, with 59% occurring in Ethiopia alone, a share that was among the top ten by country in the world(7). Moreover, for every woman who dies of pregnancy related complication, about 20-30 others experience morbidity globally, and the burden is decided to be highest in low-income countries(7,8).

By the end of the Millennium Development Goals (MDG) era in 2015, MMR in the African Region was 542 per 100 000 live births, which is up to 34 times higher than the MMR in Europe(4). Also in Ethiopia maternal mortality remain high although from 871 deaths in 2000 to 673 deaths in 2005, to 676 deaths in 2011, and to 412 deaths per 100,000 live births in 2016 according to Ethiopian Demographics and Health Survey (EDHS) 2000-2016(9).According to Ethiopian Mini Demographics and Health Survey (MEDHS) 2019, National and Oromia region ANC from a skilled provider was 74% and 70.8%, and the percentage of births delivered by a skilled provider was 50%and 43.7% and postnatal check during the first 2 days after birth 34% and 26% respectively. Rural women (29%) were more likely than urban women (15%) to have no ANC visits(5).

In addition, the health service delivery report of Finfinne special Zone and Berek Woreda health office showed that in 2013 E.C antenatal service coverage was 39% and 25%, skilled birth attendant was 38% and 19% and postnatal was 39% and 35%respectively(10). This indicates us; women in Berek district still do not make use of available services to avoid complication in connection to pregnancy and delivery.

Increasing the level of birth preparedness and complication readiness is one of the key interventions to promote optimal utilization of skilled maternal health services. There have been improvements in the coverage of interventions to reduce maternal mortality, ensuring that all women have access to skilled care during pregnancy, childbirth, and the postpartum period(4,11).

1.3 Significance of the study

The maternal health service and evidence based intervention like BPCR is required to reduce maternal and neonatal mortality.

There for this study will help health care managers, health professionals, governmental and non-governmental bodies to reduce barriers of practice of BPCR. This study also useful for other researchers for further studies and it also proved input data for future research to address comprehensive package of BPCR in study area. Considering the scarcity of reliable and documented evidence on pregnant women's experience on BPCR in the study area, the study aimed to identify the level of women's experience on BPCR which will help in estimating the BPCR need of pregnant women.

Finally, the finding of this study showed gap and factors related with BPCR and recommendation will provided to health care institutions hence pregnant women's will benefitted through improved BPCR package.

2. LITERATURE REVIEW

Birth preparedness and complication readiness is a process of planning for normal birth and anticipating the actions needed in case of an emergency and it is a comprehensive package designed to address delays by empowering women, her family and the community to improve planning for birth and take actions in case of an emergency(12).

2.1 Magnitude of BPCR

In a study conducted in Bankhong Thailand revealed that 78.4% adolescent pregnant women were prepared. The most mentioned birth preparedness and complication readiness indicators was planning to give birth with skilled provider(12). In another study conducted in Matlab North and South districts of Chandpur, Bangladesh found that about 12% of women were prepared as measured by planning of at least two components, for skilled childbirth and emergency obstetric complications(11). And also in another study conducted in Dakshina Kannada district of Karnataka state India 79.3%, in Ogomoso, southwest Nigeria 40.3%, in Bureti sub country of Kerch, Kenya 70.5%, in Sodo town wolayita Zone southern Ethiopia 48.5%, in Debre Berhan town, Amhara Ethiopia 53.9%, in Adama town, central Ethiopia 29.1% and in Goba Woreda, Oromia region, Ethiopia 29.2% showed that of pregnant women were prepared for birth and its complications(13–19).

2.2 Factors associated with BPCR

Studies conducted on BPCR have demonstrated that BPCR was associated with socio-demographic factors, health service-related factors, individual/ maternal factors and spouse/ relative factors.

2.2.1 Socio-demographic factors

Studies conducted in Mpwapwa district, Tanzania, and Telenga, Tumkur Karnataka, India have demonstrated that educational status of pregnant women, educational status of husband, occupational status of both pregnant women and their husbands have significant associations for well BPCR. The findings revealed that women with primary education and above were more likely to be prepared and ready for birth and its complications(3,20,21).

Studies conducted in Telenga and DakshinaKarnada, India have demonstrated age of pregnant women was associated with optimal BPCR practice; findings showed pregnant women in age group > 26years and age group >30years were more likely to have optimal BPCR practices(3,13).

Studies conducted in Dakshina Kannada, India, Bangladesh and Ogbomoso, Nigeria had shown that asset index and economic status were associated with optimal BPCR. The findings revealed that women with asset index of five (richest) were four times “well prepared” than women in the asset index of one (poorest) and economic status above poverty and middle socio-economic group were more prepared for birth compared to lower socio-economic group(11,13,14).

Other studies conducted in Adigrat town, Adama town, and Mizan-Tepi University Teaching hospital, Ethiopia revealed that socio-demographic factor such as educational status of pregnant women and their husband, maternal occupation, marital status, and income were associated with birth preparedness and complication readiness. The findings showed that literate women, women with secondary education and above, married women and lower monthly income were significantly associated with higher preparedness for birth and readiness for its complications(18,22).

2.2.2 Health Service-related factors

Studies conducted in Matlab North and South district Chandpur of Bangladesh revealed that antenatal care (ANC) visit was associated with BPCR. The odds of “well prepared” were six times for women with four or more ANC visits compared to women with none or one ANC visit(11).

Similarly, other studies conducted in s, and Uttar Pradesh, India demonstrated that women registered for ANC has significant higher level of preparedness compared to those pregnant women with no ANC registration. It was also found that preference to private health sector for antenatal care/ delivery was significant factors associated with optimal BPCR practice and women regular antenatal checks ups with their husbands have significant association for well birth preparedness and complication readiness(3,23,24).

Furthermore, other studies conducted in Bureti Sub County of Kericho County, Kenya, and Debre Berhan town, DugunaFango District in Wolayta Zone, and Adigrat town, Ethiopia revealed that number of ANC visits and higher level of parity were associated with well prepared for birth and ready for obstetric complications(25–27).

Other studies conducted in Nepal and Bangladesh has shown that higher completeness of preparedness for birth was associated with skilled birth attendant at health facility. The findings revealed that the likelihood of actual delivery at a health facility increased by two to threefold for pregnant women who intended to save money and identified a delivery place or identified a potential blood donor(28,29).

A study conducted in Jimma Ethiopia on factors associated with BPCR showed access to health facility found to have statistically significant association with BPCR, women from near health facility six times and women who were from within two hours travel on foot from health facility were two times more likely to be prepared for birth and its complication(30).

2.2.3 Maternal Health related factors

Studies conducted in Dakshina Kannada district, Karnataka, India and Matlab North and South districts of Chandpur, Bangladesh have shown that knowledge of danger signs during pregnancy and delivery was associated with BPCR(11,23).

Studies conducted in Bureti Sub County of Kericho County, Kenya and Mpwapwa district, Tanzania have shown that pregnant women who knew danger signs of pregnancy were prepared for birth and its complications. The findings found that women who knew ≥ 3 obstetric danger signs and who recognized vaginal bleeding as an obstetric danger sign were more likely prepared for birth and its complications(21,25).

Studies conducted in Debre Berhan town, DugunaFango, and Adama town, Ethiopia showed that being pregnant for the first time, having knowledge of at least two danger signs and having heard about term BPCR were associated with being well-prepared for birth and its complications(26,27,31).

A study conducted in Robe Arsi Zone, parity and birth order affect BPCR. Birth order of four or more or being grand multipara found to be significantly associated with birth preparedness and complication readiness. (32).

Studies conducted in DugunaFango District, Wolayita Zone, and Adama town, Ethiopia revealed that past obstetric history was associated with BPCR. Study findings revealed that parity was significantly associated with BPCR. The findings also showed that history of past obstetric complication was associated with higher level of preparedness for birth and its complications(27,31)

2.2.3 Spouse/ Relative factors

Studies conducted in Telenga, Dakshina Kannada, Tumkur Karnataka and Uttar Pradesh, India have shown that husband involvement in decision for place of delivery and joint family discussion about BPCR was significantly associated with well birth preparedness and complication readiness.

A study conducted in Sodo town Wolayita Zone showed that respondent who had ANC follow up at list once were 2.9 times more likely spouse involvement in birth preparedness and complication readiness to obstetric referral than those had no ANC follow up(33)

The following Conceptual framework of birth preparedness and complication readiness was developed after reviewing different literatures.

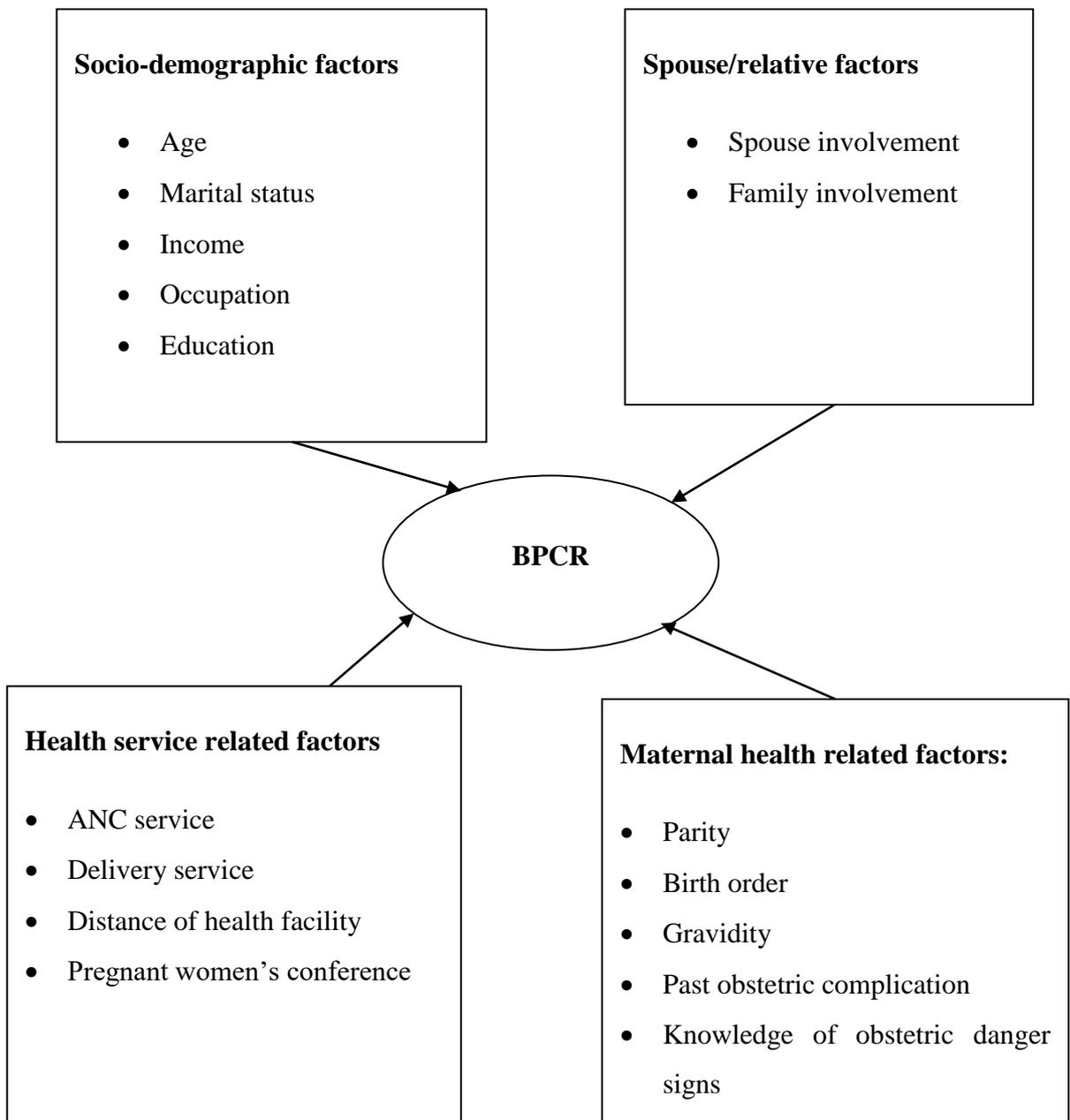


Figure 1 Conceptual framework of birth preparedness and complication readiness

3. OBJECTIVES

3.1 General Objective:

- To assess birth preparedness and complication readiness and its associated factors among pregnant women in Berek Woreda, Oromia, Ethiopia, 2022.

3.2 Specific Objectives:

- To determine Birth Preparedness and complication readiness in Berek Woreda, Oromia, Ethiopia, 2022 G.C.
- To identify factors associated with birth preparedness and complication readiness in Berek Woreda, Oromia, Ethiopia, 2022 G.C.

4. METHODS AND MATERIALS

4.1 Study Area

The study was conducted in Berek Woreda in Oromia Special Zone Surrounding Finfinne, which is located north east **39** kilometers from Addis Ababa on the main road to Debrebirhan. As projected from Central Statistical Agency (CSA) 2007 report, the district has a total population of 101,554 (51,793 males and 49,761 females) living in 21,157 households. An estimated 3,524 were pregnant during 2022(34). There are 4 health centers, 22 health posts and three private clinics in the district (Berek woreda health office 2022).

4.2 Study design and Study period

A community based cross sectional study was conducted in Berek Woreda from June 15 to July 15, 2022.

4.3 Population

4.3.1 Source population

The source population was all pregnant women in all kebeles of Berek Woreda.

4.3.2 Study population

The study population was all pregnant women selected by Systematic sampling from the selected kebeles of Berek woreda from June 15 to July 15, 2022.

4.4 Inclusion and Exclusion criteria

4.4.1 Inclusion Criteria

All pregnant women those who are stayed greater than 6 months in the study area were included.

4.4.2 Exclusion Criteria

Pregnant mother who were critically ill in the study area were excluded.

4.5 Sample size and sampling Procedure

4.5.1 Sample size determination

The sample size for the study is calculated by using a single population proportion formula, by considering the following assumptions: 95% confidence level, 5% degree of precision, the estimated BPCR practice (P-value) was 30 % from the previous study done at Arab Minch zuria woreda, southern Ethiopia (35), and 10% non-response rate the sample size n will be

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

Where, n= sample size

Z= the standard normal deviation at 95% confidence interval; = 1.96

P= proportion of population practicing BPCR=0.3

d= margin of error that can be tolerated, 5% (0.05)

Therefore, based on the above single population proportion formula the sample size could be calculated as,

$$n = \frac{\left(Z \alpha/2\right)^2 \times P \times (1-P)}{d^2}$$

$$n = \frac{(1.96)^2 \times 0.3 \times (1-0.3)}{(0.05)^2}$$

n=322

So, the minimum sample size becomes 322, by considering 10% non-response rate, the final sample size becomes **354** pregnant women.

4.5.2 Sampling Procedure

To have representative sample of kebeles for adequate sample size, half of the 22 kebeles of Berek woreda was selected by simple random sampling. Then, the total sample size ($n=354$) was allocated proportionally to selected kebeles based on their respective pregnant women population size. The list of pregnant women was obtained from their respective kebele health extension workers. Finally, systematic sampling technique was used to select individuals from the list based on the sampling interval for each kebele. In case when the study participants didn't available for interview for some reason (e.g. absenteeism), attempt have been made to revisit it two times. They have been considered as non-respondant after trial of three visits if they had not be found.

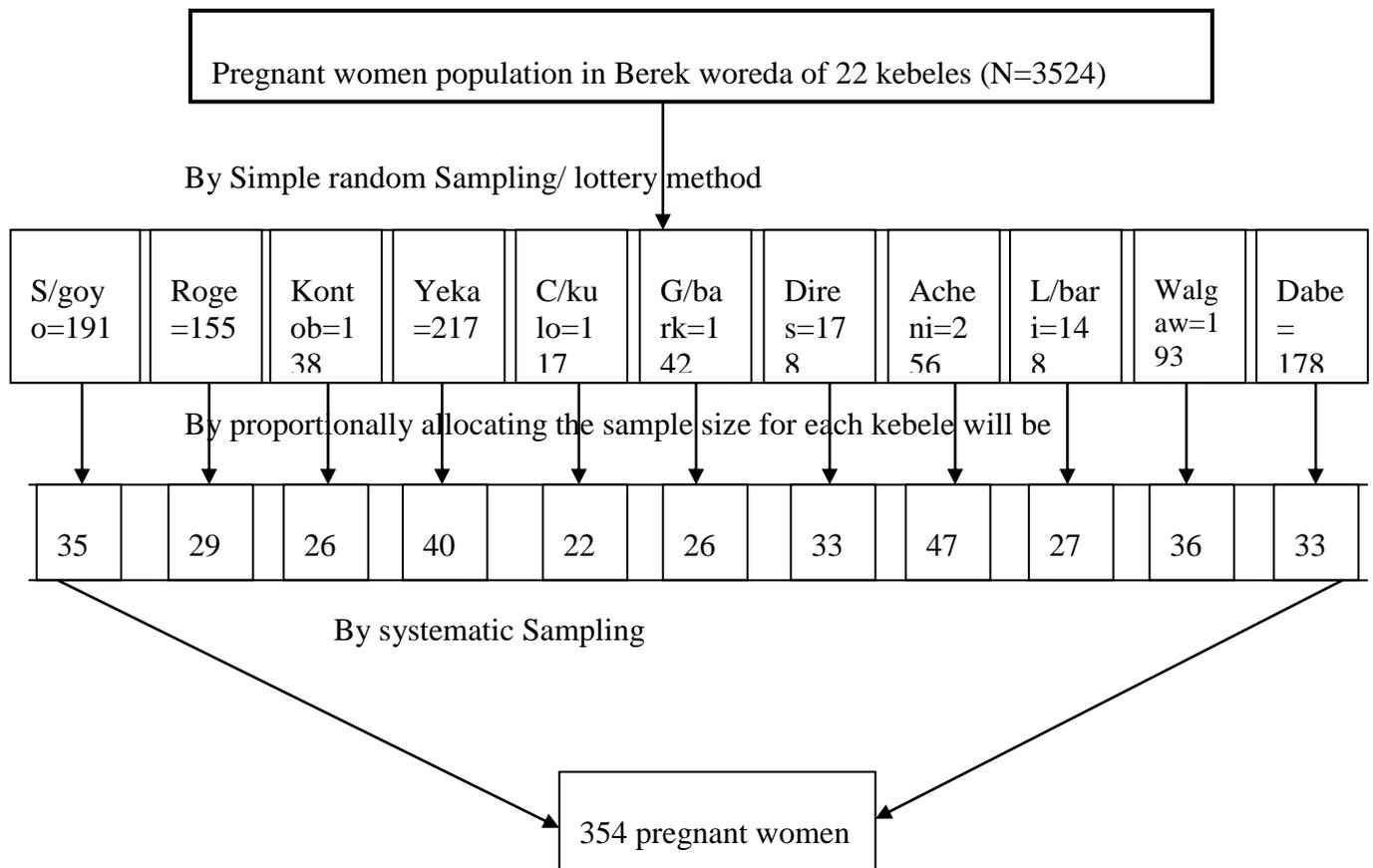


Figure 2 Schematic presentation of sampling procedures among pregnant women in Barak Woreda, Oromia region, Ethiopia, 2022.

4.6 Study Variables

4.6.1 Dependent variables

Birth preparedness and Complication readiness practice (BPCR)

4.6.2 Independent Variables

Socio-demographic factors: Age, Religion, Marital status, income, occupational status and educational.

Spouse/relative factors: spouse and family involvement.

Health Services related factor: ANC services, pregnant womens' conference/discussion, Delivery services & distance of health facility.

Maternal Health related factors: Parity, birth order, gravidity, past obstetric complications and knowledge of obstetric danger sign.

4.7 Operational Definitions

Birth preparedness and complication readiness: A woman was considered as prepared for birth and its complication if she identify three and more components from birth preparedness complication readiness (16,36).

Skilled provider: (Physicians, Nurses, Midwives, and Health Officers) who can manage normal deliveries and diagnose, manage, or refer obstetric complications.

Knowledge on key danger signs of pregnancy: A woman was considered as knowledgeable if she spontaneously mentioned at least two of the three key danger signs otherwise not knowledgeable(36)

Knowledge on key danger signs of labor: A woman was considered as knowledgeable if she spontaneously mentioned at least three of the four key danger signs otherwise not knowledgeable(36)

Knowledge on key danger signs of post-partum: A woman was considered knowledgeable if she spontaneously mentioned at least two of the three key danger signs otherwise not knowledgeable(36).

Knowledge of birth preparedness and complication readiness: A woman was considered knowledgeable if she can spontaneously mentioned at least 4 item of knowledge of birth preparedness and complication readiness question otherwise not knowledgeable(37).

4.8. Data Collection procedure and Instrument

Data was collected by data collectors from all eligible mothers using a pre-tested semi structured interviewer administered questionnaire that is adapted from the survey tools developed by JHPIEGO Maternal and Neonatal Health Program(38). The questionnaire was prepared first in English and translated into local language Afan Oromo and Amharic then back to English by another person who was blinded for English version to check clarity of questionnaire. Based on the geographical distribution of the villages, data was gathered by four clinical nurses who speak local language and two BSc nurses supervised the data collection.

4.9 Data quality control

The data collectors and supervisors were trained for two days about the objectives of the study, interview & skipping pattern. Questionnaire was pre-tested on 5% of sample size in non-selected kebeles in the study area to check the clarity of questionnaire, sequence of questions and competence of data collectors. Discussion was held based on the result of the pre-test and necessary correction was done. The Data was checked for completeness by supervisors on daily base during data collection time.

4.10 Data entry and analysis procedure

Data was entered in to Epi data version 3.1 and exported to SPSS version 26 for descriptive and inferential analyses. Descriptive statistics was used to describe the study population in relation to relevant variables. Descriptive statistics such as frequency and percentage was computed for categorical variables. Continuous variable was presented as mean \pm Standard Deviation. Frequencies and cross tabulation was used to check for missed values of variables. Binary logistic regression analysis was performed on the independent variables and the dependent variable. In order to investigate the association of independent variables with dependent variables both binary and multivariable analysis was used. In binary analysis, each independent variable proportion & crude odds ratio was computed against the outcome variable to identify the factors that are associated with birth preparedness and complication readiness. Finally, independent variables with P-value less than 0.25 in binary logistic analysis was entered into final multivariable logistic regression model to control for potential confounders and to identify significant

factors associated with outcome variable. The candidate variables were entered into multivariable logistic regression model to get significant and insignificant variables in the model. Multi-collinearity was tested by variance inflation factor and model fitness was checked by using Hosmer and Lemeshow goodness of fitness. Finally, adjusted odds ratio (AOR) along with 95% confidence interval was estimated to assess the strength of the association & a P-value < 0.05 was considered to declare the statistical significance in the multivariable analysis in this study.

4.11 Ethical consideration

Ethical approval was provided by Ethical Review Committee of Debre Berhan University. Formal letters of permission was obtained from Regional Health Bureau to Berek Woreda health office. Then another letters of permission was obtained from Berek Woreda health office to each kebeles selected for the study. Finally, verbal consent was secured from pregnant women included under the study before data collection.

5. RESULT

5.1 Sociodemographic characteristics of the study population

A total of 354 pregnant women were identified to participate in the study. Out of these 351 were interviewed which made a response rate of 99%.while 3 mothers were didn't participate, due to different reason. The mean \pm Standard Deviation age of respondents was 28 ± 6 years. Of the respondents 333 (94.9%) were currently in marital union. Higher percentages of the respondents, 213(60.7%) were orthodox by religion, whereas 94 (26.8%) respondents were Muslim. 177 (50.4%) of the respondents were uneducated whereas 123 (35%) attended elementary school. Regarding occupation 179(51%) was farmer followed by marchant 77 (21.9%).

The majority of respondants 213(60.7%) family size were five and greater than five and whereas 138 (39.3%) respondants family size were four and less than four. About 152(43.3%) of the respondants could be reached within more than 1 hour on foot to nearby health facility, while 136(38.7%) of respondants could be reached within 30- to 60-minute on foot.

Table 1 Socio-demographic characteristic of respondents among pregnant women, Berek Woreda, oromia region Ethiopia October, 2022

Variables	Category	Frequency	Percentage (%)
Age	15-19yrs	29	8.3
	20-24yrs	80	22.8
	25-29yrs	103	29.3
	30-49yrs	139	39.6
Religion	Orthodox	213	60.7
	Muslim	94	26.8
	Protestant	44	12.5
Marital status	Married	333	94.9
	Widowed	3	.9
	Separated	11	3.1
	Divorced	4	1.1
Educational status	Uneducated	177	50.4
	read and write	35	10.0
	Primary	123	35.0
	Secondary and above	16	4.6
Occupational status	Farmer	179	51.0
	Marchant	77	21.9
	gov't employee	21	6.0
	daily laborer	74	21.1
Family size	<=4	138	39.3
	>=5	213	60.7
Distance from health facility	<30minute	63	17.9
	30-60 min	136	38.7
	>60min	152	43.3

5.2 Obstetric history of the respondent

231 (65.8%) of respondents had two to three pregnancies whereas 30 (8.5%) of the respondents were primigravida. Among the respondents, majority of them 171(48.7%) and 64 (18.2%) were found to have one and two child respectively. Twenty three (6.6%) of the respondents had history of abortion, while 10 (2.8%) of them had history of stillbirth,

Table 2 Obstetric history of respondent among pregnant women Berek Woreda, oromia region Ethiopia October, 2022

Variables	Category	Frequency	Percentage (%)
Gravida	Once	30	8.5
	2-3 times	231	65.8
	<u>Four and above</u>	90	25.6
Birth order	First	171	48.7
	Second	64	18.2
	Third	59	16.8
	fourh and above	27	7.7
Abortion	Zero	298	84.9
	one and above	23	6.6
Stil birth	Zero	311	88.6
	one and above	10	2.8

5.3 Maternal health service utilization

From the study participants 212(60.4%) were attend ANC service during their recent pregnancy. while 49(23.1%) of respondents were attend ANC 4. The majority of respondents 197(92.9%) attended their first ANC at three and above months of their pregnancy whereas 15(7.1%) of respondents were attended their first ANC within three months of their pregnancy. 170 (82.1%) mothers were supported on their ANC attendance by nurse (health care provider) at health facility. 161 (50.2%) respondents were gave birth at health institutions.

Table 3 Maternal health service utilization among pregnant women Berek Woreda, oromia region Ethiopia October, 2022.

Variables	Category	Frequency	Percentage (%)
ANC attend	No	139	39.6
	Yes	212	60.4
Personnel checked	Physician	14	6.6
	Nurse	174	82.1
	HEW	24	11.3
ANC start	<3month	15	7.1
	3month and above	197	92.9
ANC visit	1-3visit	163	76.9
	4 visit and above	49	23.1
Institutional delivery	Yes	161	50.2
	No	160	49.8
Personel assisted	Physician	9	5.6
	Nurse	152	94.4

5.4 Knowledge of danger signs of obstetric complications

Fourty five percent of the participants reported that they were heard about danger signs related to pregnancy, labor /deliver and post partum. Among these, almost all 158(45%) were heard the danger signs that can threaten mathers'life during labor and delivery, while 135(38.5%) and 134(38.2%) were heard the danger signs that can threaten mathers'life during pregnancy and delivery respectvly. The most (81.6%) mentioned danger sign during pregnancy, labor /delivery and post partum was sever vaginal bleeding. Besides this, the majority of the respondants 135(85.4%) hear the danger sign from health care providers.

Table 4 Knowledge of obstetric danger sign among pregnant women Berek worda oromia region Ethiopia October, 2022.

Variables	Spontaneous response	Category	Frequency (%)
Danger signs of pregnancy	Severe vaginal bleeding	Yes	114(84.4%)
		No	21(15.6%)
	Swollen hand/face	Yes	26(19.3%)
		No	109(80.7%)
	Blurred vision	Yes	59(43.7%)
		No	76(56.3%)
	Other	Yes	0
		No	135
Danger signs of labor/delivery	Severe vaginal bleeding	Yes	143(90.5%)
		No	15(9.5%)
	Prolonged labor >12 hours	Yes	55(34.8%)
		No	103(65.2%)
	Convulsion	Yes	00
		No	158(45%)
	Retained placenta	Yes	40(25.3%)
		No	118(74.7%)
Other	Yes	0	
	No	158	
Danger signs of postpartum	Severe vaginal bleeding	Yes	130(97%)
		No	4(3%)
	Foul smelling vaginal discharge	Yes	32(23.9%)
		No	102(76.1%)
	High fever	Yes	33(24.6%)
		No	101(75.4%)
	Other	Yes	0
		No	134

5.5 Preparations for birth and its complications

The majority 296 (84.3%) of the respondents were obtained support like dedicating money for transport, arrangements for who should accompany the woman when she travels to the health facility, and taking care of children who remain at home while she is at the health facility from relatives..

Out of study participants, 257(73.2%) were had information about birth preparedness and complication readiness.Out of those who had information about, birth preparedness and complication readiness 208 (80.9%) of them were get information from health workers.

Generally about 166 (47.3%) study participants were prepared for birth preparedness and complication readiness in their last pregnancy.

Among those respondents who prepared for last pregnancy on birth preparedness and complication readiness about 135(81.3%) respondents were identify place of delivery and 102(69.9%) of respondents were saving money as a means of preparing for birth and its complications .whereas 50(30.1%) of respondents were identify skilled provider.

Table 5 Practices of respondents on preparation for birth and its complication, Berek woreda oromia region Ethiopia October, 2022.

S. No	Variables	Frequency	Percentage (%)
1	Identify place of delivery	135	81.3%
2	Identify skilled provider	50	30.1%
3	Saving money	102	69.9%
4	Identify ways of transport	31	18.7
5	Identify blood donor	10	6%

Birth preparedness and complication readiness

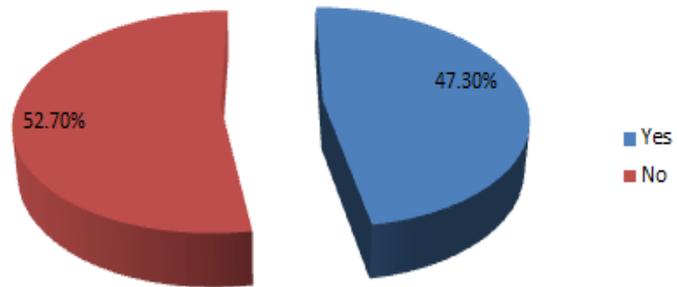


Figure 3 Magnitude of Birth preparedness and complication readiness Berek woreda, Oromia, 2022.

5.6 Factors associated with birth preparedness and complication readiness

On binary logistic regression, educational status of the respondents, support from husband, distance of health facility, birth order, information about BPCR, ANC follow up, pregnant women conference and knowledge of danger sign during pregnancy, labour and postnatal period were found to have statistically significant association with birth preparedness and complication readiness.

Multiple logistic regression analysis was also computed to control the possible confounder, explores the association between selected independent variables, and birth preparedness and complication readiness. The pregnant women those who get support from their husband during pregnancy, delivery and post partum were 5.4 times more likely prepared for delivery and its complication when compared to those who not get support from their husband. (AOR = 5.42, 95% CI = 1.19, 24.71). Additionally, distance of mother home from health facility was also found as a predictor of birth preparedness and complication readiness. The odds of birth preparedness and complication readiness of woman who far from health facility 83% less likely prepared for delivery and its complication when compared to near to health facility. (AOR = 0.170, 95% CI = 0.033, 0.885). And also pregnant women those who have no information about BPCR were 83.3% (AOR = 0.167, 95% CI (0.45, 0.625) less likely to prepare for delivery and its complication than those who have information about BPCR. Mothers those who have no anc follow up were 81 % less likely to prepare for BPCR than those who have ANC follow up. (AOR = 0.189, 95% CI = 0.068, 0.526). Besides, the odds of birth preparedness & complication readiness among pregnant women those who were not participate on pregnant women conference/discussion were nearly eighty five percent less likely prepare for delivery and its complication when compared to women those who were participate on pregnant women conference/ discussion. (AOR = 0.155, 95% CI = 0.043, 0.558).

Table 6 Association factors of birth preparedness and complication readiness Berek woreda, October, 2022.

Variables	Category	BPCR		COR (CI, 95%)	AOR (CI, 95%)
		YES	NO		
Education	Uneducated	77	100	1	1
	Read& write	30	5	7.79(2.889,21.019)	1.453(0.140,15.058)
	Primary	51	72	0.92(0.577,1.466)	3.636(0.659,20.071)
	Secondary & above	8	8	1.299(0.466,3.616)	1.092(0.111,10.726)
Husband support	Yes	83	160	6.922(4.027,11.90)	5.423(1.190,24.712)**
	No	79	22	1	1
Distance of health institution	<30 min	18	45	1	1
	30-60 min	45	91	1.236(0.64,2.375)	0.688(0.176,2.698)
	>60 min	103	49	5.255(2.760,10.004)	0.170(0.33,0.885)**
Birth order	First	47	124	1	1
	Second	37	27	3.615(1.986,6.581)	3.70(0.882,15.531)
	Third	49	10	12.92(6.055,27.60)	3.087(0.437,21.787)
	fourth and above	26	1	68.59(9.051,519.8)	0.680(0.566,21.676)
Information about BPCR	Yes	151	106	1	1
	No	15	79	0.33(0.73,0.244)	0.167(0.45,0.625)**
ANC service	Yes	149	63	1	1
	No	17	122	16.973(9.440,30.518)	0.189(0.068,0.526)**
Pregnant women conference	Yes	119	22	1	1
	No	47	163	0.053(0.030,0.093)	0.155(0.043,0.558)**
Knowledge about Danger signe	Yes	94	64	1	1
	No	72	121	0.405(0.263,0.624)	1.448(0.470,4.458)

NB **= variables significant at Multivariable logistic regression, AOR- adjusted odd ratio,1-reference group

6. DISCUSSION

This community based survey tried to assess magnitude of birth preparedness and complication readiness and factors affecting it in randomly selected rural kebeles and selected the pregnant mothers from the list of their respective kebele health extension workers of Berek Woreda, Oromia region, Ethiopia.

The findings reveal that 47.3% of the respondents were prepared for birth and its complications. This finding is far low as compared with the studies from Thailand, 78.4%(12) , Kannada,79.3% (13), and Kenya,70.5% (15). This finding suggests that pregnant women who live in rural area have less birth preparedness than those who live in urban area. This confirms previous report that well prepared pregnant women tended to live in urban area compared to those who were less prepared(12). On other hand, the level of BPCR is higher from Bangladish,12%(11), Adama twon,29.1%(18), and Goba woreda,29.2% (19). This difference may be due to the difference of study population which the study was conducted among child bearing women. This implies that the recall biases might be occurred among those who were child bearing women.

Besides, it is slightly in agreement with the finding of study conducted in Nigeria,40.3% (14), Sodo Wolayita,48.5%(16), and Debreberahan,53.9% (17). This may indicate due to similarity of study participant those who are pregnant women. Commonly mentioned practice in the study were identifying place of delivery which is important to obtain services of skilled provider at health facility level.This is nearly comparable with community based study in Goba woreda, Bale Zone(19).

This study showed that women those who have ANC follow up were prepared for their birth and its complication. Mothers those who have no ANC follow up were 81 % less likely to prepare for BPCR than those who have ANC follow up. (AOR = 0.189, 95% CI = 0.068, 0.526). It is nearly consistent with study conducted in rural Bangladish(11). This signifies that antenatal care attendance increases the chances of women to access information required to make decisions relating to birth preparedness and complication readiness.

The finding of this study also showed that distance of health facility from women's home is the other predictor for BPCR which is supported by the study done in Jimmaa Zone

(30). Woman who far from health facility 83% less likely prepared for delivery and its complication when compared to near to health facility. This may be explained by the fact that women access to health information, health services and also reduces distance barriers.

In this study, having information about birth preparedness and complication readiness and having support from their husband are an additional independent variable which affect birth and its complication. In line with this finding that as the pregnant women access for information, and get husband support, they are benefited for maternal health services. The pregnant women those who get support from their husband during pregnancy, delivery and post partum were 5.4 times more likely prepared for delivery and its complication when compared to those who not get support from their husband. This is nearly similar with the study conducted in India city (24) and Woloayita Sodo Zone (33).

Furthermore, this study showed that participating on pregnant women discussion/conference at different level was statistically significant variable that affects birth preparedness and complication readiness (BPCR). Pregnant women those who were not participate on pregnant women conference/discussion were nearly eighty five percent less likely prepare for delivery and its complication when compared to women those who were participate on pregnant women conference/ discussion. (AOR = 0.155, 95% CI = 0.043, 0.558).The implication of this finding could be the effectiveness of pregnant women group discussion at community and health facility level improves service up take of institutional delivery as Federal Ministry of Health of Ethiopia (FMOH) (6).

In this study, about (45%) of women knew danger signs which could be threaten mother's life during pregnancy, delivery and post partum. This is relatively higher than the study conducted in Kercho, Kenya (15) and Tanzania (21). This could be due to the fact that knowing the danger signs in pregnancy, deliver and post partum would lead women to seek solutions from medical staff and be willing to take some better action. Knowing the pregnancy, delivery and post partum danger signs is a key step in recognition of the complication. This, in turn leads to the awareness of the need for medical care, the decision to seek treatment and to behave where it needs to obtain emergency care from a skilled provider. This suggested that it is important for knowledge of pregnancy, delivery and postpartum danger signs.

7. CONCLUSION AND RECOMMENDATION

7.1 Conclusion

This study showed that the prevalence of birth preparedness and complication readiness was 47.3%. Husband support, distance of health facility, Information about BPCR, ANC visit, and pregnant women conference were independent predictors of birth preparedness and complication readiness.

7.2 Recommendation

Based on the finding of the study the following recommendations forwarded:

- District health office and health facility should create the accessibility of health information concerning maternal health services especially for those who are far from health facility.
- Health workers and Health extension worker should capacitate the mother knowledge on danger sign that can occur during pregnancy, delivery and postpartum.
- Stakeholders should facilitate husband/ partner engagement to help pregnant women on birth preparedness and its complication plan
- Health workers and Health extension worker should conduct pregnant women conference on regular basis with all pregnant women.
- All pregnant mothers should be identified early to link and get ANC service

8. REFERENCE

1. World Health Organization. WHO recommendation on birth preparedness and complication readiness. 2015.
2. World Health Organization. WHO recommendations on health promotion interventions for maternal and newborn health 2015 [Internet]. Geneva: World Health Organization; 2015 [cited 2022 Apr 4]. Available from: <https://apps.who.int/iris/handle/10665/172427>
3. Chajhlana SPS, Prathyusha TVD, Bhumi MA, Mahabhashyam RKN, Varaprasada MSM. Status of birth preparedness and complication readiness among pregnant women in rural areas. *Int J Community Med Public Health*. 2017 Dec 23;5(1):284–8.
4. WHO. Atlas of African Health Statistics 2018. 2018.
5. Federal Ministry Of Health. Ethiopian Mini Demographic Health Survey 2019. 2020.
6. FMOH. Health Extension Implementation Guideline, Federal Ministry of Health ,Addis Ababa, ethiopia. 2012.
7. WHO, UNICEF, UNFPA And WBG, D. UNP. Trends in maternal mortality 2000 to 2017. Geneva World Health Organization; 2019.
8. Say I, Chou D, Barbour K, Barreix M, Cecatti JG, Costa ML. Maternal morbidity: Time for reflection, recognition, and action. *Int J Gynecol Obstet* [Internet]. 2018; Available from: <https://doi.org/10.1002/ijgo>
9. Central Statistical Agency. Ethiopian Demographic and Health Survey 2016. 2017.
10. Zonal And Woreda Health service Delivery Report (DHIs2). 2013 EC.
11. Uddin B, Johanson S, Kuhn R, Nu UT, Razzaque A, Pervin J., Level and determinants of birth preparedness and complication readiness among pregnant women: A cross sectional study in a rural area in Bangladesh. *PLoS one*. 2018;13(12):1–14.
12. Teekhasaence T, Kaewkiattikun K. Birth Preparedness and Complication Readiness Practices Among Pregnant Adolescents in Bangkok Thailand. 2020;11:1–8.
13. Akshaya KM, Shivalli S. Birth preparedness and complication readiness among the women beneficiaries of selected rural primary health centers of Dakshina Kannada district, Karnataka, India. *PLOS ONE*. 2017 Aug 24;12(8):e0183739.
14. Idowu A. Birth Preparedness and Complication Readiness among Women Attending Antenatal Clinics in Ogbomoso, South West, Nigeria. *Int J MCH AIDS*. 2016;4:47–56.
15. Omari PK, Afrane YA, Ouma P. Birth Preparedness and Complication Readiness among Women Attending Antenatal Care Clinic in Health Facilities within Bureti Sub Country of Kericho County, Kenya. *Am j Med Sci*. 2016;6(4):123–8.
16. Azeze GA, Mokonnor TM, Kercho MW. Birth preparedness and complication readiness practice and influencing factors among women in Sodo town , Wolaita zone , Southern

- Ethiopia , 2018 ; community based cross-sectional study. *Reprod Health*. 2019;16(39):1–12.
17. Hailemariam A, Nahusenay H, G/Hana E, Abebe A Getaneh B. Assessment of Magnitude and Factors Associated with Birth Preparedness and complication Readiness among Pregnant Women Attending Antenatal Care Services at Public Health Facilities in Debrebirhan Town, Amhara, Ethiopia. *Glob J Med Res E*. 2016;16(2):39–43.
 18. Girmay Mekuaninte A,. Assessment of Magnitude and Factors Associated with Birth Preparedness and complication Readiness Among Pregnant Women Attending Antenatal Clinic of Adama Town Health Facilities , Central Ethiopia. *Eur J Prev Med*. 2016;4(2):32.
 19. Markos D, Bogale D. Birth preparedness and complication readiness among women of child bearing age group in Goba woreda, Oromia region, Ethiopia. *BMC Pregnancy Childbirth*. 2014 Dec;14(1):282.
 20. P. R, R. S, S. R, Iyengar K. A study to assess the birth preparedness and complication readiness among antenatal women attending district hospital in Tumkur, Karnataka, India. *Int J Community Med Public Health*. 2016 Apr 5;9:19–24.
 21. D.P. U, A.B. P, F. M. Birth preparedness and complication readiness among women in Mpwapwa district, Tanzania. *Tanzan J Health Res*. 2012;14(1):1–7.
 22. Begashaw B, Tesfaye Y, Zelalem E, Ubong U, Kumalo A. Assessment of Magnitude and Factors Associated with Birth Preparedness and Complication Readiness among pregnant Mothers Attending Antenatal Care Services in Mizan-Tepi University Teaching Hospital, South West Ethiopia. *Clinics in Mother and Child Health*. 2017;14(1):1–7.
 23. Akshaya KM, Shivalli S. Birth preparedness and complication readiness among the women beneficiaries of selected rural primary health centers of Dakshina Kannada district, Karnataka, India. *PLoS ONE*. 2017;12(8):1–15.
 24. Kumar K. Birth Preparedness and Complication Readiness in Uttar Pradesh, India. *Health (N Y)*. 2016;08(06):605–14.
 25. Omari PK, Afrane YA, Ouma P. Birth Preparedness and Complication Readiness among Women Attending Antenatal Care Clinic in Health Facilities within Bureti Sub County of Kericho County, Kenya. *Am J Med Med Sci*. 2016;6(4):123–8.
 26. Hailemariam A, Nahusenay H, G/Hana E, Abebe A, Getaneh B. Assessment of Magnitude and Factors Associated with Birth Preparedness and Complication Readiness among Pregnant Women Attending Antenatal Care Services at Public Health Facilities in Debrebirhan Town, Amhara, Ethiopia, 2015. *Glob J Med Res E*. 2016;16(2):39–43.
 27. Gebre M, Gebremariam A, Abebe TA. Birth preparedness and complication readiness among pregnant women in Duguna Fango District, Wolayta Zone, Ethiopia. *PLoS ONE*. 2015;10(9):1–12.
 28. Karkee R, Lee AH, Binns CW. Birth Preparedness and skilled attendance at birth in Nepal. 2013;

29. Islam S, Perkins J, Siddique MdAB, Mazumder T, Haider MR, Rahman MM, et al. Birth preparedness and complication readiness among women and couples and its association with skilled birth attendance in rural Bangladesh. van Wouwe JP, editor. PLOS ONE. 2018 Jun 7;13(6):e0197693.
30. Gurmesa Tura Dedelew, Mesganaw Fantahun Afework, Alemayew Worku Yalew. Factors affecting birth preparedness and complication readiness in Jimma Zone, Southwest Ethiopia. 2014;
31. Girmay Mekuaninte A. Assessment of Magnitude and Factors Associated with Birth Preparedness and Complication Readiness Among Pregnant Women Attending Antenatal Clinic of Adama Town Health Facilities, Central Ethiopia. Eur J Prev Med. 2016;4(2):32.
32. Kaso and Addisse. Birth preparedness and complication readiness in Robe Woreda, Arsi Zone, Oromia Region Central Ethiopia. 2014;
33. Kebreab Paulos, Nefsu Awoke, Bazie Mekonnen, Aseb Areba. A new conceptual framework for maternal morbidity [Internet]. 2020 [cited 2022 Apr 4]. Available from: <https://obgyn.onlinelibrary.wiley.com/doi/epdf/10.1002/ijgo.12463>
34. Wikipedia. 2007 Population and Housing Census of Ethiopia: Results of Oromia Region. 2007.
35. Andarge E, Nigussie A, Wondafrash M. Factors associated with birth preparedness and complication readiness in Southern Ethiopia. 2017;
36. Zepre K, Kaba M. Birth preparedness and complication readiness among rural women of reproductive age in Aabeshige district, Gguraghe zone, SNNPR, Ethiopia. Int J Womens Health. 2017;9:11–21.
37. D. M, D. B. Birth preparedness and complication readiness among women of child bearing age group in Goba woreda, Oromia region, Ethiopia. BMC Pregnancy Childbirth. 2014;14(1):1–9.
38. JHPIEGO. Maternal and Neonatal Health Monitoring birth preparedness and complication readiness tools and indicators for MNH Johns Hopkins Bloomberg, School of Public Health Center for Communication programs Family Care International. 2004;

ANNEX

ANNEX I: PARTICIPANT INFORMATION SHEET AND CONCENT FORM

My name is _____. I am working as a data collector for the study being conducted in this Kebele by **Tenagnework German** who is studying for her master's degree at Debre Berhan University, Asrat Woldeyes health science campus, school of public health. I kindly request you to lend me your attention to explain you about the study and being selected as study participant.

The study title: Birth preparedness and complication readiness and its associated factors among pregnant women in Berekworeda, Oromia Central Ethiopia.

Purpose of the study: The finding of this study is of paramount importance for the Berekworeda Health Office as well as Zonal Health Office and Oromia Regional Health Bureau to improve BPCR implementation program to reduce maternal death. Moreover, the aim of this study is to write a thesis as a partial requirement for the fulfillment of Master program in Public Health for the principal investigator

Procedure and duration: I will be interviewing you using a questionnaire to provide me with pertinent data that is helpful for the study. There are 54 questions to answer where I will fill the questionnaire by interviewing you. The interviews will take 30 minutes. So, I kindly request you to spare me this time

Risk and Benefit: There is no known risk of being participant in this study except taking few minutes from your time. There would not be any direct payment for participating in this study. But the finding from this research may reveal important information for the local health planners at regional health office, woreda health office, Hospital and Health Centers.

Confidentiality: Any information 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 persons or housing. The questionnaire will be coded to exclude showing names. No reference will be made in oral or written reports that could link participant to the research.

Rights: Participation for this study is fully voluntary. You have the right to declare to participate or refuse this study. If you decide to participate, you have the right to withdraw from the study at anytime and this will not label you for any loss of benefits

which you otherwise are entitled. You do not have to answer any question that you do not want to answer

Contact address

If you have any questions or inquiries any time about the study or the procedure, please contact **Ms Tenagnework German** (Principal investigator) at **Berek Health Office in Sendafa town** or call by phone **(0961035495)**.

Declaration of informed voluntary consent

I have read/was read to me the participant information sheet. I have clearly understood the purpose of the research, the procedures, the risks and benefits, issues of confidentiality, the right of participating and the contact address for any queries. I was informed that I have the right to withdraw from the study at any time or not to answer any question that I do not want. Therefore, I declare my voluntary consent to participate in this study with my signatures as indicated below.

Signature of the participant _____ Signature of the data collector _____

ANNEX II: QUESTIONNAIRE

English version questionnaire

Instruction: circle the response from the alternative and write the answer for open ended question on the space provided

Section I: Socio-demographic information

S.no	Questions	Choice of response	SKIP
101	What is Your age in completed years?	_____ Years	
102	To which religion do you belong	1.Orthodox 4.Catholic 2.Muslim 5.Other 3.Protestant	
103	What is your current marital status	1.Married 2.Widowed 3.Separated 4.Divorced 5.Single	
104	What is your educational status	1.Uneducate 2.Read and write 3.primary 4.secondary and above	
105	What is your occupation?	1. Farmer 2. Merchant 3.Govermental employee 4.Daily laborer 5.Other	
106	Monthly income	_____ ETB	
	If married/ in union		
107	What is your husband educational status?	1.Uneducate 2.Read and write 3.primary 4.secondary and above	
108	What is your husband's current occupation?	1.Farmer 2.Marchant 3.Govermental employee 4.Daily laborer 5.Other	
109	Did you get support from your husband	1.Yes	If no go

	during your recent pregnancy, delivery/postpartum	2.No	to Qno 111
110	If yes, What support you got from your husband during your recent pregnancy?/More than one answer possible/	1.prepared money for transport 2.Accompany me while I were going to health facility 3.Share responsibility of care of children at home 4.Other/Specify	
111	Did you get support from your relatives during your recent pregnancy, delivery/postpartum	1.Yes 2.No	If no go to Q no 113
112	What support you got from your relative during your recent pregnancy?/More than one answer possible/	1.prepared money for transport 2.Accompany me while I were going to health facility 3.Share responsibility of care of children and other work at home 4.Other/Specify	
113	Family size	_____	
114	What time it take from your home to reach the nearest health center /hospital in minute by walk?	1.<30 min 2.30-60 min 3.>60 min	

Section II: Gravidity and Parity/ Obstetric information

S.no	Questions	Choices of response	SKIP
201	How many times you became pregnant in your life	_____	
202	According to your birth order where did your recent child belong?	1.First 2.Second 3.Third 4.Fourth and above	
203	How old were you in first pregnancy	_____yrs	
204	How old were you in your current pregnancy	_____yrs	
205	What were the outcome of the pregnancy (ask for each item and put numbers on the space)	1.Totl live birth_____ 2.Abortion_____ 3.Still birth_____ 4.Other specify_____	

Section III: Service use and planning action

S.no	Questions	Choice of response/alternative	SKIP
301	Have you any information about birth preparedness and complication readiness?	1.Yes 2.No	If no go to Q no 304
302	If yes, from where did you hear about these preparation? More than one answer possible	1.Health worker 2.Local Radio 3.Relative/Family 4.Other	
303	What preparation you heard? More one answer possible	1.Identifying place of delivery 2.Identifying skilled provider 3.Saving money for emergency 4.Identifying transport for emergency 5.Identifying blood donor 6.Other	
304	Did you attend ANC before your current pregnancy?	1.Yes 2.No	If primi go to Q no 306
305	Did you planned to attend ANC during your current pregnancy?	1.Yes 2.No	
306	Did you attend ANC during your current pregnancy	1.Yes 2.No	If no go to Q no 308
307	If yes, whom did you see during your recent ANC visit	1.Physician 2.Nurse/HWs 3.HEWs 4.Other	
308	At how many weeks/ months you start ANC visit	_____weeks/months	
309	How many times you attend ANC in your current pregnancy?	_____times	
310	Did you participate on pregnant women's conference in your current pregnancy?	1.Yes 2.No	
311	Did you prepare for your current delivery and its complication?	1.Yes 2.No	If no go to Q no 313
312	If yes, what preparation you made?(more than one answer possible)	1.Identifying place of delivery 2.Identifying skilled provider 3.Saving money for emergency 4.Identifying transport for emergency 5.Identifying blood donor 6.Other(specify)	
313	Did you planned on place of delivery?	1.Yes 2.No	
314	Where was the place of delivery you planned?	1.Home 2.Governmental HI 3. Other (specify)	

315	Have you ever given birth at HFs before current pregnancy?	1.Yes 2.No	
316	If yes, in how many pregnancies?	_____	
317	Did you plan skilled assistant during delivery?	1.Yes 2.No	If no go to Q no 319
318	If Yes, who were you planned to assist you?	1.Physician 2.Nurse/HWs 3.Other(specify)	
319	Who assisted you during recent delivery?	1.Physician 2.Nurse/HWs 4.Other(specify)	
320	Did you save money for obstetric emergency?	1.Yes 2.No	
321	Had you planned mode of transport to place of delivery during emergency?	1.Yes 2.No	If no go to Q no 324
322	If yes, what was the mode of transportation? (ask those planned for emergency)	1.On foot 2.By car 3.Carried by other people 4. Other (specify)	
323	Did you plan blood donor during obstetric emergency?	1.Yes 2.No	
324	Did you encounter any health problem during pregnancy, labor/delivery and immediately after birth?	1.Yes 2.No	If no go to Q no 327
325	If yes, what were the problems (more than one answer possible)?	1.Excessive vaginal bleeding 2.Prolonged labor (>12hrs) 3.Retained placenta(>1hrs) 4.Malpresentation 5.Early rupture of membrane 6.Fetal death 7. Other	
326	Were you referred to HF further? (ask those who faced the problem)	1.Yes 2.No	If no go to part Iv
327	If yes, who accompanied you to HF (ask referred)	1.Husband 2.Relative 3.Alone 4.Other	
328	If you were referred to HF what mode of transport you used to reach to the HF?	1.On foot 2.By car 3.Carried by other people 4.Other (specify)	

Section IV: Knowledge on danger sign during pregnancy, labor/delivery and postpartum

S.no	Questions	Alternative/ choice of response	SKIP
401	Do you know any obstetric danger sign that can occur during pregnancy, labor and postpartum?	1.Yes 2.No	
402	If yes, from where did you hear these danger sign?	1.Health worker 2.Local Radio 3.Relative/Family 4.Other (specify)	
403	Do you know any danger sign that threat mother life during pregnancy?	1.Yes 2.No	If no go to Q no 405
404	What danger sign occur during pregnancy? (first do not mentioned the option to identify whether they list spontaneously or not)	1.Sever vaginal bleeding 2.Swollen hand/face 3.Biuurred vision 4.Other(specify)_____	
405	Do you know any danger sign that threaten mothers during labor	1.Yes 2.No	If no go to Q no 407
406	What danger sign can occur during labor/delivery? (first do not mentioned the option to identify whether they list spontaneously or not)	1.Sever vaginal bleeding 2.prolonged labor (>12hrs) 3.Convultion 4.Retained placenta(> 1hr) 5.Other (specify)_____	
407	Do you know any danger sign that threat mother life during postpartum?	1.Yes 2.No	
408	What danger sign can occur during postpartum? (first do not mentioned the option to identify whether they list spontaneously or not)	1.Sever vaginal bleeding 2.Foul-smelling vaginal discharge 3.High fever 4.Other (specify)_____	

Thank you

DebreBerhan University

Asrat Woldeyes Health Science Campus

School of Public Health

Master's thesis proposal Approval sheet

Topic: Assessment of Birth Preparedness and Complication Readiness and Its Associated Factors among Pregnant Women in Berek Woreda, Oromia, Central Ethiopia.

Assurance of Principal Investigator

The undersigned agrees to accept responsibility for the scientific ethical and technical Conduct of the research project and for provision of required progress reports as Per terms and conditions of the Research Publications Office in effect at the time of Grant is forwarded as the result of this application.

Name of the Investigator: **Ms. Tenagnework German (Bsc.)**

Date. _____ Signature _____

Approval of Advisors

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Date. _____ Signature _____

Name of co-adviser: **Mr. Fetene Kassahun (Bsc, MSC)**

Date. _____ Signature _____

Name of Examiner: Ms. Dagmawit M.

Date. _____ Signature _____

ANNEX III: QUESTIONALRE

Amharic version questionnaire

ጤና ይስጥልኝ፤ እኔ _____ እባላለሁ። ለመመረቅ በሚደረገው ጥናት በመረጃ ሰብሳቢነት እየሰራሁ እገኛለሁ። ይህ ጥናት የሚካሄደው እናቶች ለወሊድ ዝግጅትና ሊያጋጥሙ የሚችሉ ችግሮች ተዘጋጅቶ ስለመጥበቅ ያላቸው ሁኔታ እንዲሁም እውቀትና ተግባር እንዲሁም የህ ተግባር የመዉለጃ በታ ላይ የሚኖረውን ተጽእኖና ሌሎች ይመዉለጃ በታን የሚወስኑ ሁኔታዎችን ለመፈተሽ ነው። በጥናቱ እንዲሳተፉ በእጣ ከተመረጡ ሴቶች አንዷ እርስዎ ናዎት። ስለዚህ እዚህ ጥናት ላይ እንዲሳተፉና አስፈላጊውን መረጃ እንዲሰጡን በትህትና እንጠይቃለን። ይሁን እንጂ ማንኛውም ጥያቄ አለመመለስ ይችላሉ። እንዲሁም በማንኛውም ጊዜ ጥያቄውን ማቋረጥና በጥናቱ አለመሳተፍ ይችላሉ።

በጥናቱ በመሳተፍዎ የሚደርስበት ችግር ወይም ግዜያዊ ጥቅም የለም። ጥያቄና መልሱ 30-45 ደቂቃ ይወስዳል። ይህ በግልጽ የሚሰጡት መልስም በሚስጥር የሚጠበቅ ስለሆነ ከጥናቱ ውጤት ጋር በምንም የሚያያዝ አይደለም። ላረጋግጥልዎ የምፈልገው ነገር ቢኖር ይህ የሚሰጡት መልስ በጣም አስፈላጊ የሚሆነው ጥናቱን ለማጥናት ብቻ ሳይሆን በእርግዝና ውቅት ፣ በወሊድ ጊዜ እና ከወሊድ በኋላ ለሚያጋጥሙ የጤና ችግሮችን ለመፍታት ያለ መዘጋጀትንና በጤና ድርጅት እንዲሁም በሰለጠነ ባለሙያ ያለመውለድ ችግርን ለመቀነስ አስፈላጊ የሆነ እቅድ ለማውጣትና በተግባር ለማዋል የእናቶች እና አዲስለሚወለዱ የህፃናትን ህይወት ለማዳን የሚጠቅም ነው።

ከላይ ባገኙት መረጃ መሰረት በጥናቱ ለመሳተፍ ተስማምተዋል

1. እስማማለሁ.....

2. አልስማማም

ያልገባዎት ነገር ካለ ከዚህ ቀጥሎ በሚያገኙት አድራሻ ይደውሉ

ተናኚወርቅ ጀርመን: - (ስልክ:- 0961035495) (ኢሜል: tenuger@gmail.com)

የጠያቂው ስም : _____ ፊርማ _____ ቀን: _____

የሱፐርቫይዘር ስም : _____ ፊርማ _____ ቀን: _____

የመጠይቁ ኮድ: ----- ቀበሌ -----

ክፍል 1. ማህበራዊ ሁኔታን

የሚዳስሱ መጥይቆች

ተ.ቁ	ጥያቄዎች	አማራጭ መልሶች	ከድ	ዝ ለ ል
101	እድሜ	_____ አመት		
102	ሐይማኖት:	<ol style="list-style-type: none"> 1. ኦርቶዶክስ 2. ሙስሊም 3. ፕሮቴስታንት 4. ካቶሊክ 5. ሌላ ከሆነ ይጠቀስ ----- 		
103	የጋብቻ ሁኔታ	<ol style="list-style-type: none"> 1. ያገቡ 2. ባል የሞተባቸው 3. የተለያዩ ቦታ የሚኖሩ 4. የፈቱ 5. ያላገቡ 		
104	የትምህርት ደረጃ	<ol style="list-style-type: none"> 1. ያልተማሩ 2. ማንበብና መጻፍ የሚችሉ 3. አንደኛ ደረጃ 4. ሁለተኛ ደረጃና ከዚያ በላይ 		
105	የስራ ድር	<ol style="list-style-type: none"> 1. ግብርና 2. የግል ንግድ ሥራ 3. የመንግስት ሰራተኛ 4. የቀን ሥራ 5. 5. ሌላ ከሆነ ይጠቀስ 		
106	ወረርሃዊ ገቢ በብር	_____		
	ያገባች እናት ከሆነች የባል ሁኔታ ይጠይቁ			

107	የባል የትምህርት ሁኔታ:-	<ol style="list-style-type: none"> 1. ያልተማሩ 2. ማንበብ ና መጻፍ የሚችሉ 3. አንደኛ ደረጃ 4. ሁለተኛ ደረጃ ና ከዚያ በላይ 		
108	የባል ስራ	<ol style="list-style-type: none"> 1. ግብርና 2. የግል ንግድ ሥራ 3. የመንግስት ሰራተኛ 4. የቀን ሥራ 5. ሌላ ከሆነ ይጠቀስ 		
109	በእርግዝናዎ ፤ ወሊድዎ ወይም ድህረወሊድዎ ወቅት ከባለቤትዎ ድጋፍ አግተኝው ያውቃሉ? (ያገባች/አብረው የሚኖሩ ከሆኑ)	<ol style="list-style-type: none"> 1. አዎ 2. የለም 		የለም ከሆነ ወደ 1 1
110	አዎ ከሆነ ምን አይነት ድጋፍ ነው ያገኙት? /ከአንድ በላይ መልስ መስጠት ይቻላል/	<ol style="list-style-type: none"> 1. ለትራንስፖርት ገንዘብ በማዘጋጀት 2. ወደ ጤና ጣቢያ/ሆስፒታል አብሮኝ በመሄድ 3. እቤት ውስጥ ልጆችን በመንከባከብ 4. ሌላም ካለ ይጠቀሱ 		
111	በእርግዝናዎ፤ በወሊድዎ ወይም ድህረወሊድዎ ወቅት ከቤተሰብዎ ድጋፍ አግተኝው ያውቃሉ ?	<ol style="list-style-type: none"> 1. አዎ 2. የለም 		የለም ከሆነ ወደ 113
112	አዎ ከሆነ ምን አይነት ድጋፍ ነው ያገኙት? /ከአንድ በላይ መልስ መስጠት ይቻላል/	<ol style="list-style-type: none"> 1. ለትራንስፖርት ገንዘብ በማዘጋጀት 2. ወደ ጤና ጣቢያ/ሆስፒታል አብሮኝ በመሄድ 3. እቤት ውስጥ ልጆችን በመንከባከብ 4. ሌላም ካለ ይጠቀሱ 		
113	የቤተሰብ ብዛት?	_____		
114	በእግርጉዞ ከቤትዎ እስከ ጤና ጣቢያ/ሆስፒታል በደቂቃ ምን ያህል ይወስዳል?	<ol style="list-style-type: none"> 1 15-ከ30 ደቂቃ 2. ከ30-60 ደቂቃ 3. ከ 60 ደቂቃ በላይ 		

ክፍል 2: እርግዝናና ወሊድን የሚመለከቱ ጥያቄዎች

ተ.ቁ	ጥያቄ	አማራጭ መልሶች	ከድ	ዝላል
201	በህይወት ዘመኖት ስንት ጊዜ አርግዘው ያውቃሉ?	_____		
202	በመጨረሻ የወለዱ ልጅ ስንተኛ ልጆች ነው?	<ol style="list-style-type: none"> 1. አንደኛ 2.. ሁለተኛ 3. ሶስተኛ 		

		4. አራተኛ እና በላይ		
203	የመጀመሪያ ልጆችን ሲያረግዙ እድሜዎ ስንት ነበር?	_____ ዓመት		
204	በቅርቡ እርግዝናዎ እድሜዎ ስንት ነው?	_____ ዓመት		
205	የእርግዝናዎት ውጤት ምን ነበር? /ስለ እያንዳንዱ ይጠይቁና ቁጥሩን ባዶው በታላይ ይፃፉ	1. በህይወት የተወለደ----- 2. ውርጃ----- 3. ሞቶ የተወለደ----- 4. ከሌላ ከሆነ ይጥቀሱ_____		

ክፍል 3. ለአገልግሎት እቅድና አጠቃቀም ያላቸው ግንዛቤና ዝንባሌን የሚመለከቱ መጠይቆች

ተ.ቁ	ጥያቄ	አማራጭ መልሶች	ኮድ	ዝላል
301	ለወሊድ መዘጋጀትና ከወሊድ ጋር ተያይዞ ሊከሰቱ ለሚችሉ ችግሮች ቅድመ ዝግጅት ማድረግን በሚመለከት ከዚህ በፊት ሰምተው ያወቃሉ?	1. አዎ 2. የለም		የለም ከሆነ ወደ 304
302	አዎ ከሆነ ከማን ሰሙ?(ከአንድ በላይ መልስ መጥቀስ፡ይቻላል)	1. ከጤና ባለሙያ 2. ከራድዮ 3. ከዘመድ 4. ከሌላ _____ ከሆነ ይጥቀሱ_____		
303	ምን አይነት ዝግጅት ነው የሰሙት? (ከአንድ በላይ መልስ መጥቀስ ይቻላል)	1. የት እንደምወልድ መወሰን 2. ማን እንደሚያወልድኝ መለየት 3. ገንዘብ መቆጣጠል 4. መጋገዣ/ትራንስፖርት ማዘጋጀት/ማቀድ 5. ደም ካስፈለገ የሚሰጥ ሰው ማዘጋጀት 6. ሌላ ካለ ይጥቀሱ_____		
304	ከአሁኑ እርግዝናዎ በፊት የቅድመ ወሊድ ክትትል አድርገው ነበር?	1. አዎ 2. የለም		የመጀመሪያ ከሆነ ዝላል
305	በአሁኑ እርግዝናዎ ወቅት የቅድመ ወሊድ ክትትል ለማድረግ አቅደው ነበር?	1. አዎ 2. የለም		

306	በአሁኑ እርግዝናዎ የቅድመ ወሊድ ክትትል አድርገዋል?	1. አዎ 2. የለም		የለም ከሆነ ወደ 308
307	አዎ ከሆነ ማን ነበር ያየዎት?	1. ዶክትር 2. ነርስ 3. ጤና ኤክስቴንሽን 4. ሌላ ከሆን ይጥቀሱ		
308	በስንተኛ ሳምንት/ወር ላይ ነበር የቅድመ ወሊድ ክትትልዎን የጀመሩት?	-----ሳምንት/ወር		
309	ስንት ጊዜ የቅድመ ወሊድ ክትትል አደረጉ?	_____ ጊዜ		
310	በአሁኑ አርግዝናዎ የነብሳጡር እናቶች ኮንፈረንስ ላይ ተሳትፈዋል?	1. አዎ 2. የለም		
311	በአሁኑ ለወሊድ የሚያስፈልጉትን ነገሮች ቅድመ ዝግጅት አድርገዋል?	1. አዎ 2. የለም		የለም ከሆነ ወደ 313
312	አዎ ከሆነ ምን አይነት ዝግጅት ነው ያደረጉት? (ከአንድ በላይ መልስ መስጠት ይቻላል)	1. የት እንደምወልድ መወሰን 2. ማን እንደሚያወልድኝ መለየት 3. ገንዘብ መቆጣጠል 4. መጋገፍ/ትራንስፖርት ማዘጋጀት/ማቀድ 5. ደም ካስፈለገ የሚሰጥ ሰው ማዘጋጀት 6. ሌላ ካለ ይጥቀሱ_____		
313	በአሁኑ እርግዝናዎ ወቅት የት እንደሚወልዱ አቅደዋል?	1. አዎ 2. የለም		
314	አዎ ከሆነ የት ለመውለድ ነበር ያቀዱት?	1. ቤት ውስጥ 2. የመንግስት ጤና ድርጅት 3. ሌላ _____ ካለ ይጥቀሱ_____		
315	ከዚህ በፊት ጤና ድርጅት ውስጥ ወልደው ያውቃሉ?	1. አዎ 2. የለም		
316	አዎ ከሆነ ስንት ጊዜ?	_____		
317	ለአሁኑ ወሊድዎ የሚረዳዎት ባለሙያ አቅደዋል?	1. አዎ 2. የለም		የለም ከሆነ ወደ 319
318	አዎ ከሆነ ማን እንዲያወልዱት ነው ያቀዱት?	1. ዶክትር 2. ነርስ 3. ሌላ ከሆን ይጥቀሱ		
319	በባለፈው ወሊድዎ ወቅት ማን ነው ያወለዱት?	1. ዶክትር 2. ነርስ 3. ሌላ ከሆን ይጥቀሱ		
320	ከወሊድ ጋር ተያይዞ ድንገት ሊከሰቱ ለሚችሉ ችግሮች የሚሆን ገንዘብ ቆጥበዋል?	1. አዎ 2. የለም		

321	በወሊድ ጊዜ ለድንገተኛ የሚ ሆን ትራንስፖርት/መጋገፍ አቅደዋል?	1. አዎ 2. የለም		የለም ከሆነ ወደ
322	ምን አይነት ትራንስፖርት ነው ያቀዱት?(ለቀዱ ብቻ ይጠይቁ)	1. በእግር 2. በመኪና 3. በሰው ሸክም 4. ሌላ ከሆነ ይጥቀሱ_____		
323	በወሊድ ጊዜ ድንገት ደም ቢያስፈልግ ደም የሚ ለግስ ሰው አቅደዋል?	1. አዎ 2. የለም		
324	ከዚህ በፊት በነበረው እርግዝና/በወሊድ ወይም ከወሊድ በኋላ የገጠ ሞት የጤ ና ችግር ነበር?	1. አዎ 2. የለም		የለም ከሆነ ወደ 327
325	ምን አይነት የጤና ችግር ነበር ያጋጠሞት? ከአንድ በላይ መልስ መስጠት ይቻላል	1. ከማህፀን ከባድ የደም መፍሰስ 2. የምጥ ጊዜ መርዘም(ከ12 ሰዓት በላይ) 3. የእንግዳ ልጅ መዘግየት(ከ1 ሰዓት በላይ) 4. የልጅ አመጣጥ ትክክል አለመሆን 5. ሽንት ውሃ ያለጊዜው መፍሰስ 6. የልጅ መሞት 7. ሌላ ከሆነ ይጥቀሱ_____		
326	ወደ ሌላ ጤና ድርጅት ሪፈር ተደርገው ነበር? (ችግር ገጥሞአቸው ከነበረ)	1. አዎ 2. የለም		ካልተደረጉ ወደክፍል 4
327	ከማን ጋር ሄዱ?(ሪፈር ለተደረጉ)	1. ባል 2. ዘመድ 3. ብቻዬ 4. ሌላ ከሆነ ይጥቀሱ----- ---		
328	ሪፈር ከተደረጉ ምን አይነት ትራንስፖርት ተጠቀሙ?	1. በእግር 2. በመኪና 3. በሰው ሸክም 4. ሌላ ከሆነ ይጥቀሱ----- ----		

ክፍል 4:-በእርግዝናና በወሊድ እና ጊዜ ሊከሰቱ የሚችሉ አደገኛ ምልክቶችን የሚመለከት መጠይቅ

ተ.ቁ	ጥያቄ	አማራጭ መልሶች	ኮድ	ዝላል
401	በእርግዝናና በወሊድ ወይም	1. አዎ		የለም

	በድህረወሊድ ወቅት ከዚህ በተያያዘ ሊከሰት የሚችል የጤና ችግር/አደገኛ ምልክት አለ?	2. የለም		ከሆነ
402	አዎ ከሆነ ከየት ሰሙ?	1. ከጤናባለሙያ 2. ከራድዮ 3. ከዘመድ 4. ከሌላ ከሆነ ይጥቀሱ_____		
403	በእርግዝና ወቅት የሚከሰት የእናትን ህይወት ለአደጋ ሊያጋልጡ የሚችሉ ችግሮች አሉ?	1. አዎ 2. የለም		የለም ከሆነ ወደ 405
404	ምን አይነት አደገኛ ምልክት ነው በእርግዝና ጊዜ ሊከሰት የሚችለው?(ምርጫዎቹ መጀመርያ አያንብቡላቸው ምናልባት በራሳቸው መዘርዘር ይችሉ እንደሆን	1. ከማህፀን ከባድ ደም መፍሰስ 2. የእጅ/ፊት ማበጥ 3. የእይታ መደብዘዝ. 4. ከሌላ ከሆነ ይጥቀሱ_____		
405	በወሊድ ወቅት የሚከሰት የእናትን ህይወት ለአደጋ ሊያጋልጡ የሚችሉ ችግሮች አሉ?	1. አዎ 2. የለም		የለም ከሆነ ወደ 407
406	ምን አይነት አደገኛ ምልክት ነው በምጥ ወይም በወሊድ ወቅት ሊከሰት የሚችለው? (ምርጫዎቹ መጀመርያ አያንብቡላቸው ምናልባት በራሳቸው መዘርዘር ይችሉ እንደሆን	1. ከማህፀን ከባድ ደም መፍሰስ 2. የምጥ ሰአት መርዘም (ከ12 ሰዓት በላይ) 3. ያልተለመደ የሰውነት መንቀጥቀጥ 4. የእንግዳ ልጅ መዘግየት(ከ1 ሰዓት በላይ) 5. ከሌላ ከሆነ ይጥቀሱ_____		
407	በድህረ ወሊድ ወቅት የሚከሰቱ የእናትን ህይወት ለአደጋ ሊያጋልጡ የሚችሉ ችግሮች አሉ?	1. አዎ 2. የለም		
408	ምን አይነት አደገኛ ምልክት ነው ከወሊድ በኋላ ሊከሰት የሚችለው? (ምርጫዎቹ መጀመርያ አያንብቡላቸው ምናልባት በራሳቸው መዘርዘር ይችሉ እንደሆን)	1. ከማህፀን ከባድ ደም መፍሰስ 2. ጥሩ ያልሆነ ሽታ ያለው ፈሳሽ ከማህፀን 3. ከፍተኛ ትኩሳት 4. ከሌላ ከሆነ ይጥቀሱ_____.		

ስለሰጡኝ ጊዜና መረጃ አመሰግናለሁ !! ጥያቄ፡ካሎት

ANNEX IV: QUESTIONALRE

Afan oromo version questionnaire

Guca Waliigaltee (verbal Consent)

Akkam jirtu? Ani Maqaan koo _____ jedhama. Qo'annaa qophii haawwan da'umsaaf taasiisani fi beekkumsa isaani balaawwan ciccimoo yeroo ulfaa, da'umsaa fi battaluma da'umsaan booda qunamuu danda'niif qophaa'na godhachuu fi wantootaa kanaan walqabatee bakkee da'umsaa irratti murtessaa ta'an waliin ilaalchisee hojjatamaa jiruuf odeeffannoo funaanuudhaafan as dhufe. Qo'annaan kun aanaa Barrak keessatti hojjatamaa jira. Isin immoo qo'annaa kanaaf filannoo carraadhaan taasifameen filatamtanii jirtu. Kaayyoon qo'annichaa haawwaan qophiin isaan da'umsaa fi balaawwan tasaa yeroo da'umsaa isaan mudataniif taasisan fi haaloota bakka da'umsaaf murtessaa ta'an baruufi. Inni kun immoo tattaafi mootummaan biyya keenyaa fayyaa haadholii fi daa'iimmanii fooyyessudhaaf taasisaa jiru keessatti gahee olaanaa qaba. Qo'annaa kanarratti hirmaachuu keessaniin miidhaan isiin irra gahu tokkolee hin jiru. Akkasumas qo'annaa kanarratti hirmaachuu keessaniif faayidaan isin har'a ykn boru kallattidhaan argattan hin jiru haata'u malee odeeffannoon isin har'a nuuf laattan fulduraaf fayyaa haadholii fooyyessuu keessatti eddo ol'aanaa qaba. Gaafiif deebiin keenya daqiiqaa 30 hanga 45 tti fudhachuu danda'a. Maqaan hirmaataa kamiyyuu waan hin barroofneef qo'annaa kanarratti hirmaachuu keessan namuu hin beeku. Yeroo barbaaddanitti gaafif deebii waliin taasifnu addaan kutuu nidandeessu akkasumas gaafii deebisuu hun barbaanne dhiisuu nidandeessu.

Hala oddefannoo armaan olitiin qo'annaa kanarratti hirmaachuudhaaf hayyamamoodhaa?

1. Eyyee... itti fufii

2. Miti..... galatonfadhuu tii dhabii

Wantii ifa isiniif hintaane yoo jiraate lakkofsa bilbiloota armaan gadiitiin gaafachuu nidandesu

Tanaanyewarq Jarmaan (mob. 0961035495) (Email. tenuger@gmail.com)

Maqaa gaafata _____ Mallatoo _____ Guyyaa _____

Maqaa Suparvaaisaraa _____ Mallatoo _____

Kutaa I:- Odeeffanno haala hawaasummatii fi qabeenya ilaallatu

Lakka	Gaaffilee	Filanno	Koodii	Irra darbi
101	Umuriin keessan hangami?	Waggaa _____		
102	Amantaa kam hordoftan?	1.Ortodooksii 2.Muslima 3.Prootestaantii 4.Kaatoolikii 5.Kan biro		
103	Haalli fuudhaaf heeruma keessani amma akkami?	1.kan heerumte 2.abban 3.kan gargar jiraatan 4. kan wal hiikan 5.kan hin heerumne		
104	Sadarkaan barnoota keessani	1.Kan hin baranne 2.Dubbisuu fi barreessuu kan danda'u 3.sadarkaa lffaa 4.sadarkaa lammaffaa fi isaa ol		
105	Hojjin keessan maali?	1.Qotee bulaa 2.Daldalaa 3.Hojjataa mootuummaa 4.Hojji guyyaa 5.Kan biro		
106	Galiin keessan ji'aan meeqa?	Qqrshii Itop. _____		
	Yooherumtee			
107	Sadarkaan barnoota abbaa warra Keessani maali	1.Kan hin baranne 2.Dubbisuu fi barreessuu kan danda'u 3.sadarkaa lffaa 4.sadarkaa lammaffaa fi isaa ol		
108	Hojiin abbaa warraa keessanii amma maali?	1.qotee bulaa 2.Daldalaa 3.Hojjataa mootummaa 4.Hojji guyyaa 5.Kan biro _____		
109	Abbaan manaa keessan yeroo ulfa, da'uumsa fi da'umssa boodaa isiin deegaraa?	1.Eeyyeen 2.Lakki		Lakki yoo ta'ee G111 darbi
110	Eeyyeen yoo ta'ee Deegarssa akkamiit isiinf taasiie? Deebii tokko caaluu danda'a	1.qarshii geejjibaaf qopheessu 2.Mana yaalaa yeroon deemuu nafanaa deema 3.Manatti daa'iima kuunuunsu 4.Kan biro/yaa ibsamuu _____		
111	Fira irra deeggarssa yeroo ulfaa, da'uumsaa fi da'uumsa booda ni argattuu?	1.Eeyyeen 2.Lakki		Lakki yoo ta'ee G113 darbi
112	Eeyyen yoo ta'ee Deegarsa akkamiit isiniif	1.qarshii geejjibaaf qopheessu 2.Mana yaalaa yeroon deemuu na faana		

	taasiisu? Deebii tokko caaluu danda'a	deema 3.Manatti daa'iima kuunuunsu 4.Kan biro/yaa ibsamuu _____		
113	Baa'inni maati keessanii meeqa?	_____		
114	Milaan/Lafoodhaan daqiiqaa hangam buufanni/hospiitaalii dhiyoo jiru mana keessan irra deemsisa?	1.<30 daqiiqaa 2.30-60 daqiiqaa 3.>60 daqiiqaa		

Kutaa II:- Odeeffannoo haala ulfaatiin fi da'umsaatiin wal-qabate

Lakka	Gaaffilee	Filannoo	Koodii	Irra darbi
201	Umurii keessaniitii yeroo meeqaaf ulfa taatanii?	_____		
202	Akkaataa da'umsa keessaniitiin daa'iimni isaa dhuma meeqaadha?	1.Tokkoffaa 2.Lammaffaa 3.Safaffaa 4.Afraffaa fi sana oli		
203	Yeroo ulfa isa duraa umuriin keessan meeqa?	Waggaa_____		
204	Yeroo ulfa isa dhuma/amma umuriin keessan meeqa?	Waggaa_____		
205	Walii galli ulfa keessanii maal maalture?(tokko tokkon gaafadhu lakk. Guuti)	1.Lubbun kan dhalatan_____ 2.Kan isiin irraa bahe_____ 3.Lubbun kan hin dhalatiin 4.Kan biro_____		

Kuta III:- Beekumsa

Lakka	Gaaffilee	Filannoo	Koodii	Irra darbi
301	Kana dura jecha qophii dahumsaa fi rakkoo da'uumsan walqabataniin jedhu dhageessanii beektuu?	1.Eeyye 2.Lakki		Yoo lakki ta'ee G304
302	Eeyye yoo jettan essaa dhageessan?(deebii tokkoo ol ta'uu nidanda'a	1.Ogeessa fayyaa irra 2.Raadiyyoonii irra 3.Firaa irra 4.Kan biro_____		
303	Odeeffannoo qophii akkamii dhageesee?	1.iddo da'uumsaa adda baafachuu 2.Ogessa deesiisuu muurteefachu 3.Qarshii kuufachuu 4.Haala geejjibaa adda baafachuu 5>Nama dhiigaa keenuuf qopheefachuu 6.Kan biroo_____		
304	Ulfa keessan kan kanaan dura tiif hordoffi tajaajila da'umsa duraa gootaniin jirtuu?	1.Eeyyeen 2.Lakki		Ulfa tokkoffa yoo ta'e irra darbi
305	ulfa ammaa kanaaf hordoffi tajaajila	1.Eeyyeen		

	da'uumsa duraa godhuuf karoorfattanii turtanii?	2.Lakki		
306	ulfa amma kanaaf hordoffii tajaajila da'umsa duraa gootanii jirtuu?	1.Eeyyen 2.Lakki		Yoo lakki ta'e G308
307	Yoo Eeyye ta'ee, eenyutuu isiin ilaalee?	1.Haakima 2. Narsii 3. HEF 4.Kan biro		
308	Baatii/Ji'a meeqatti tajaajila hordoffi ulfa eegaltan/jalqabdan?	Baati/Ji'a _____		
309	Ulfa keessan kan ammaa irratti yeroo hangam hordoffi tajaajila ulfa dadeebitan?	Yeroo _____		
310	Ulfa keessan kan ammma irratti koonfarrassii dubartootaa ulfaa irratti hermatanii beektu?	1.Eeyye 2.Lakki		
311	Dahumsa isaa amma keessaniif qophii barbaachiissu taasistani jirtu	1.Eeyye 2.Lakki		Yoo lakki ta'e G313
312	Yoo Eeyye ta'ee,maal maaliif qophoftan(deebii tokko oli hin danda'ama)	1.Iddoo dahumsa adda baafachu 2.Ogeessa isin deesiissu adda baafachu 3.Qarshii kuufachuu 4.Hala gejjibaa adda baafachuu 5>Nama dhiigaa keenuuf qopheefachu 6.Kan biro _____		
313	Iddo dahumsaa keessan karoorfatan jirtu?	1.Eeyye 2.Lakki		
314	Iddo dahumsaa keessan essattii karoorfatan?	1.Mana 2.Mana yaalaa motuumma 3.Kan biroo _____		
315	Da'umsaa kanaan dura mana yaalatti deessee beektaa?	1.Eeyye 2.Lakki		
316	Eeyyee yoo ta'e da'umsaa meeqa?	_____		
317	Ogeessan da'uuf karoorsitee jirtaa?	1.Eeyye 2.Lakki		Lakki yoo ta'e G319
318	Eeyyee yoo ta'e eenyu karoorsitee	1.Dooktora 2.Narsii/Oggesa fayyaa 3. Kan biroo _____		
319	Da'umsa kan duura irratti eenyutu si gargaare?	1.Dooktora 2.Narsii/Oggesa fayyaa 3. Kan biroo _____		
320	Rakkoo da'umsaan walqabatee dhufuuf qarshii kuufattee jirtaa?	1.Eeyye 2.Lakki		
321	Geejjiba rakkoo da'umsaan walqabatee dhufuuf karoorsiteettaa?	1.Eeyye 2.Lakki		Yoo lakki ta'e G323 darbi
322	Eeyyee yoo ta'e gosa geejjibaa kam yoo rakkinaaf qopheessitee?	1.Miilaan 2.Konkolaataa 3.Namootan Baatamuu 4.Kan biroo _____		
323	Nama yeroo rakkoon da'umsan walqabatee jiru mul'atu dhiiga siif arjoomu karoorsiteettaa?	1.Eeyye 2.Lakki		

324	Rakkoon fayyaan walqabatu kamiyyuu yeroo isa dhuma garaatti baattu ,deessuu fi da'umsaan boodaa si qunnamee beekaa?	1.Eeyye 2.Lakki		Miti yoo ta'e gaafannoo 327 titti darbi!
325	Eyyee yoo ta'e rakkichi maal ture?{deebin tokkoo ol ni danda'ama}	1.Dhiigni baay'een karaa qaama wal hormaataa dhangala'uu. 2.Miixuun dheerachuu sa'aa 12 ol. 3.Ofkaltiin osoo hin ba'in hafuu.(sa'aa tokkoo oliif) 4.Gadaamessa keessatti daa'imni dabee taa'uu. 5.Bishaan buubbee dursee dhangala'uu. 6.da'imti dhalattuun du'uu. 7.Kan biro_____		
326	Yaalii dabalataaf mana yaalaa kamitti ergamtan?(warra rakkoon qunnamee gaafadhu!)	1.Eeyye 2.Lakki		Mit yoo ta'e boqonnaa 4 ti darbi!
327	Eyyee yoo ta'e mana yaalichatti eenyutu si geessee?(warra ol ergaman gaafadhu!)	1.Abbaa Warraa 2.Fira 3.kophaa 4.Kan biro_____		
328	ol ergamtee turte yoo ta'e mana yaalichaa qaqqabuuf mala geejjibaa kam fayyadamtee?	1.Miilaan 2.Konkolaataa 3.Namootan Baatamuu 4. Kan biro_____		

Boqonnaa IV Hubannoo ykn Beekumsaa yeroo garaatti baachuu,da'uumsaa fi da'uumsa boodaan walqabatu.

TL	Gaafannoo	Filannoo Deebii		darbi
401	Mallattooleen ciccimoon yeroo garaatti baatan ,da'uumsaa fi da'uumsa booda m jiraachu danda'an nibeektaa?	1.Eeyyee 2.Lakki		
402	Eyyee yoo ta'e mallattoolee kana eessaa dhageessee?	1.Hojjataa Fayyaa/Ogeessa Fayyaa 2.Raadiyoonii irra 3.Firra irraa 4.Kan biro_____		
403	Mallattoolee ciccimoo lubbuu hadhaatiif yeroo garaatti baattu sodaachisu beektaa?	1.Eeyyee 2.Lakki		Laki yoo ta'e gaafannoo 405tti darbi
404	Mallattooleen ciccimoon yeroo garatti baatan mul'atu maali?(beekumsa isaanii hubachuuf akka toluuf dursitee filannoo hin kenniniif)	1.dhiigni heeddun karaa qaama walhormaataa dhangala'uu 2.Dhiitoo harkaa fi fuulaa 3.Ijatti waan akka hurrii maruu. 4.Kan biro yaa'iibsamu_____		
405	Mallattoolee ciccimoo lubbuu hadhaatiif yeroo da'umsaa sodaachisu beektaa?	1.Eeyyee 2.Lakki		Laki yoo ta'e gaafannoo 407 darbi
406	Mallattooleen ciccimoon yeroo da'uumsaa mul'atu maali?(beekumsa isaanii hubachuuf akka toluuf dursitee filannoo hin kenniniif)	1.dhiigni heeddun karaa qaama walhormaataa dhangala'uu 2.Miixuun dheerachuu (sa'aa 12 ol) 3.Urgufuu/kirkirsiisuu		

		4.Ofkaltiin hafuu(saaa 1 ol) 5.Kan biro yaa'iibsamu _____		
407	Mallattoolee ciccimoo lubbuu hadhaatiif yeroo da'umsa boodaa sodaachisu beektaa?	1.Eeyyee 2.Lakki		
408	Mallattoleen ciccimoon yeroo da'uumsa boodaa mul'atu maali?(beekumsa isaanii hubachuuf akka toluuf dursitee filannoo hin kenniniif)	1.dhiigni heeddun karaa qaama walhormaataa dhangala'uu 2.dhangala'aa foolii gadhee qabu kan karaa qaama walhormaataa ba'u 3.ho'inni qaamaa dabaluu 4.Kan biro yaa'iibsamu _____		

Galatoomaa!