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COLLEGE OF MEDICINE AND HEALTH SCIENCES,
SCHOOL OF PUBLIC HEALTH, DEPARTMENT OF REPRODUCTIVE HEALTHANDPOPULATION STUDIES

MATERNITY WAITING HOMES USE AND ASSOCIATED FACTORS AMONG DELIVERED WOMEN IN LAST SIX MONTHS IN BULLEN DISTRICT, BENISHANGUL-GUMUZ REGION, WESTERN ETHIOPIA

BY: KIBRU KEBEDE

A THESIS REPORT TO BE SUBMITTED TO DEPARTMENT OF REPRODUCTIVE HEALTH AND POPULATION STUDIES, SCHOOL OF PUBLIC HEALTH, COLLEGE OF MEDICINE AND HEALTH SCIENCES, BAHIR DAR UNIVERSITY IN THE PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTERS OF PUBLIC HEALTH IN REPRODUCTIVE HEALTH

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Full title of research project	Maternity waiting homes use and associated factors among womendelivered in last six months in Bullen District ofBenishangul-GumuzRegion,, Western Ethiopia Mixed study.
Duration of Research	1 year
Study area	Bullen district, Metekel Zone,BenishanguleGumuze Region,
Total cost of research	36,328 birr

APPROVAL SHEET

I hereby certify that I have examined, read and evaluated this thesis report "Maternity waiting homes use and associated factors among delivered women in last six months in Bullen district, Benishangul-Gumuz region, Western Ethiopia, 2024" by: Kibru Kebede. I recommend and approve the thesis report for the degree of Masters Science in Reproductive Health.

Board of Examiners

External Examiner's Name	Signature	Date
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Internal Examiner's Name	Signature	Date



DECLARATION FORM

This is to certify that the thesis titled 'Maternity waiting homes use and associated factors among delivered women in last six months in Bullen District, Benishangul-Gumuz region, Western Ethiopia, 2024', a thesis submitted to the department of reproductive health and population studies, Bahir Dar University in partial fulfillment of the requirements for a degree of master of public health in reproductive health, is a record of original work carried out by me and has never been submitted in whole or in part, to this or any other institution to get any other degree or certificates.

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LIST OF ACCRNOMY

ANC Ante Natal Care

AOR Adjusted Odds Ratio

EDHS Ethiopian Demographic Health Survey

EFY Ethiopian Fiscal Year

EMDHS Ethiopian Mini Demographic Health Survey

EmONC Emergency Obstetrics' and New Born Care

ETB Ethiopian Birr

FP Family Planning

G.C Gregorian calendar

HEP Health Extension Package

HEW Health Extension Worker

MMR Maternal Mortality Ratio

MWH Maternity Waiting Home

OR Odds Ratio

PNC Post Natal Care

SNNPR Southern Nation's Nationalities and Peoples Region

SPSS statistical package for social since

UNFPA United Nations Population Found Agency

WHO World Health Organization

ABSTRACT

Background: Utilization levels of Maternal waiting home have generally been reported to be low with their conditions often regarded as unsatisfactory globally. In Ethiopia studies from different setting have underlined the need to take local cultural practice, and other supportive and inhibitory factors into account when planning to establish maternal waiting homes.

Objectives: To assess maternity waiting homes use and associated factors among delivered women in Bullen District, Benishangul-Gumuz Region, Western Ethiopia, 2024

Methods: A community-based study triangulated with a qualitative study was conducted from April 01/2024 to May 30/2024 among delivered women. A total of 957 women were included in the study. A multi-stage sampling technique and purposive sampling technique was used to select the study participants. For the quantitative study data was collected through face-to-face interview using pretested structured questionnaire while focused group discussion and in-depth interview were used for qualitative study. The data was entered into Epi Data version 3.1 and exported to SPSS version 25 for analysis. Binary logistic regression was employed. First, bi variate analysis was done, and then it was followed by multi-variable analysis to identify associated factors. Adjusted odd ratio (AOR) was computed with 95% CI and a p-value below 0.05 was used as cutoff point for declaring significant association. Thematic analaysis was used for qualitative study.

Result:-The magnitude of use of maternity waiting home during their pregnancy, delivery and postnatal time in last pregnancy in study area was 26.2% with 95% CI = 23.4% to 29%. Having 3 and less family members in their household [AOR (95% CI) = 2.17(1.24, 3.80), experiencing pregnancy-related complication recently [AOR (95% CI) = 2.03(1.25, 3.32); having at least one ANC follow up [AOR (95% CI) 3.56(2.25, 5.61), and mother deciding to utilize maternity waiting home by themselves [AOR (95% CI); 1.88(1.32, 2.68) were factors positively associated with maternal waiting home utilization. In qualitative study the finding was lack of privacy, women decision power, no assistance at home and MWH.

Conclusion: -In this study, maternity waiting home utilization was low. Family size, ANC follow up status, number of ANC complications during pregnancy, and maternal decision-making power was positively associated with the utilization of MWH. Thus, health education communication regarding danger signs of pregnancy, empowering the woman's decision making.

Key point:- maternal waiting home, bullen district, benishangule gumuz, Ethiopia.

1. INTRODUCTION

1.1 Background

In most developing countries about 80% of people live in rural areas, where poor access to maternity services accounts for many maternal and prenatal deaths (1). Easy access to obstetric care is challenging issue in the rural world and it is noted that pregnant women from hard-to-reach areas are more likely to be exposed to obstetric complications and pregnancy-related deaths (2).Making motherhood safer is a main concern for the Ethiopian government and diverse efforts, such as establishing and the scaling-up of maternity waiting homes (MWHs), which were initially concentrated at the hospital level but have more recently been implemented at lower-level facilities (3).

Maternity waiting homes are residential facilities where women who live remotely can wait before giving birth at health facilities. It provides setting for women that can be accommodated during the final weeks of their pregnancy near a hospital or health center with essential obstetric care (2). WHO recommends skilled care at every birth, which includes access to facilities with the capacity for emergency obstetric care one of the strategy to achieve the above recommendation was preparing maternal waiting home(4). The aim of implementing a MWH strategy is to advance access to skilled birth attendance and emergency obstetric care which results in reduction of maternal and prenatal mortality, particularly for women in rural and remote areas(5).

Pregnant women could benefit by staying at a MWH and being closer to a facility that can handle emergency obstetric complications that might otherwise not have access to skilled care due to the constraints posed by distance (6).Maternity waiting home is endorsed by World Health Organization (WHO) as one of the component of a comprehensive package to reduce maternal morbidity and mortality(1). Some developing countries are attempting to reduce delays in treatment by moving women at risk into maternity waiting homes, located near a hospital or health center in a few days prior to the date of confinement(1).The 2015-2020 Health Sector Transformation Plan of Ethiopia, included MWHs as part of community ownership projects. Thus, with the growing interest, Ethiopian ministry of health designed strategy that enhances

MWH and integrated MWHs into the health sector transformation plan to improve maternal and child health in Ethiopia(7).

Attat Hospital in SNNPR(southern nation nationality and people regional state) is the former to start the initiative of pregnant women waiting area in 1985(8). But have more recently been implemented at lower-level health center which is one of the tested and proven strategies to reduce maternal mortality, which has been in existence for more than decades(9). However, the uptake of maternity waiting home not in line with its expected in some part Ethiopia where study conducted previously and even not assessed in the study area (7). Therefore the aim this study is to assess maternity waiting homes use and associated factors among delivered women in Bullen District, Benishangul-Gumuz Region, Western Ethiopia

1.2 Statement of the problem

In low-income countries, one woman in 41 dies from maternal causes(11)and one of the major contributors of these death is the distance and consequent delay in treatment of childbirth complications(4).As the report of MEDHS (mini Ethiopian demographic health survey) 2020 reveals, Ethiopia has a high maternal mortality with an estimated ratio of 401 per 100,000 live births and low skilled birth attendance which is 48% MEDHS2019. Although Ethiopia is scaling up MWHs to reduce maternal and prenatal mortality, women's use of MWHs varies markedly between facilities (10).

Systematic review and meta-analysis in Africa revealed that utilizing MWHs have a significant effect in reducing postnatal mortality by 82.5%(8). But Utilization levels of MWHs have generally been reported to be low with their conditions often regarded as unsatisfactory globally(11).

According to meta-analysis conducted in Ethiopia, the use of maternity waiting was low. There was a utilization variation in use of maternity waiting homes across different regions of Ethiopia (12).In Ethiopia studies from different settings have examined limited use of maternity waiting home services, and have underlined the need to take local cultural practice, and other supportive and inhibitory factors into account when planning to establish maternal waiting homes(13-15).

Maternity waiting homes (MWHs) have been established to provide mothers living in remote regions with access to skilled healthcare services during pregnancy, delivery, and postpartum periods. However, there is a dearth of data on the utilization of MWHs in pastoralist areas(16).
Although majority of health centers have maternity waiting homes according to 2021 Bullen health office reports, institutional delivery service was 36% which is low, and there is no study conducted on assessment of magnitude of MWH utilization and associated factor affecting its use in the study area and within the region. Hence the aim of this study was to determine the status of MWHs utilization and identify the factors associated with MWHs utilization.

1.3 Significance of the study

This study can help the health system to improve MWHs services and to know factors that diminish the uptake of MWHs, with the ultimate aim of achieving universal maternal health coverage.
The finding also can form a body of knowledge, useful for effective utilization of maternity waiting home and has the potential to guide a plan for MWHs in Metekel zonal districts, zonal health department, Benishangul-Gumuz Regional Health Bureau (BGRHB), and Ministry of Health in designing and implementing interventions that can increase MWH utilization.
The result of this study can also provide information and show direction health care professionals to how structure the maternal waiting home to increase the utilization by pregnant mothers.

Additionally, the result of the study was helpful to BGRHB in developing or reviewing guidelines regarding the utilization of MWH and initiates governmental and none governmental partners to support the initiatives. This study may identify significant factor that show the difference for further longitudinal study for further researchers.

CHAPTER TWO

LITERATURE REVIEW

2.1. Maternity waiting home use

A cross sectional study done in rural Zambia on the utilization of maternity waiting homes in found that 70.6% did not stay in a MWH before delivery(17).A similar study conducted in Kenya shows that 61% mothers utilized maternal waiting room in health facility prior to their delivery(11).

In Ethiopia different study conducted at different area indicated highly variable magnitude MWH utilization. A community-based cross-sectional study in Arba-Minch Zuria districts, Southern Ethiopia in 2019 shows that only 8.4% of the recently delivered mothers used maternity waiting home(7).

Another Study conducted in Jimma district, Oromia region, indicate that only 7% of women reported MWH use(13) and similar study conducted in Eastern Gurage SNNPR indicated that maternal waiting home utilization is 15.5%(14).

As indicated by community based cross sectional study conducted in arsi zone,oromia region the magnitude of maternal waiting home utilization was 23.6%(6). Another similar study conducted in the Sidama region indicated that about 67.25% utilized the maternity waiting home(24). According to astudy conducted Teltelle district, Ethiopia only 26.64% of women utilized MWHs(16).

2.2. Factors associated with use of maternity waiting home

2.2.1 Socio-demographic factors:

As indicated by different Study done in different area showed that mothers being older age group have significantly associated with deceased utilization of maternal waiting home when compared with those mothers in younger age category(2, 18-20).

Educational status is another significant socio demographic factor associated with utilization of maternal waiting home. Those mothers with higher educational status were more likely to utilize maternal waiting home (20-22).

Husband educational status has significant effect on utilization of maternal waiting home. Lower education level husband hinder the women utilization status of maternal waiting home(2, 21).Another significant socio demographic factors that affect utilization of maternity waiting home is maternal and her husband occupational status(22, 23).

House hold income level is another socio demographic factors that has significant effect on utilization of maternity waiting home by pregnant mother. According to study conducted in the different parts of Ethiopia being in lower level of house hold income was associated with decreased utilization status of maternal waiting home(21, 22).

The distance from maternal home to health facility has significant effect on utilization of maternal waiting home. In this regard those women's who travel >30 minutes to reach the nearest health facility were more likely to utilize maternal waiting home when compared with those who travel less than 30 minute(6, 13)

As studies conducted in different part of Ethiopia religion and cultural practice has significant effect in utilization of maternal waiting home. The cultural and spiritual factors include assuming delivery as natural process ought to happen at home, trust in traditional birth attendants, traditional practices during and after delivery and faithful to religion practice are factors that hinder the utilization of maternal waiting home,(22, 24).

Marital status has significant effect on utilization of maternal waiting home. Studies from different area showed that Women who were married had higher odds of utilizing a MWH when compared to not married women(20, 25)

Even though the government tried to lower the rate of home delivery by accessing health institutions in remote areas, implementing a women's development army, and introducing maternal waiting home utilization, nearly one in every three pregnant women does not use maternal waiting home and gave birth at home among ANC booked women in their last pregnancy(26).

2.2.2 Obstetric related factors

As indicated by a study done in Zambia the numbers of children the women have previously has significant effect on the utilization of maternal waiting home. According to this study mothers having many children were less likely to use maternal healthcare services(19).

Another significant Obstetric and gynecological related factors associated with utilization of maternal waiting home was ANC follow up status. Presence odds of attending four or more antenatal care visits of ANC service during pregnancy was associated with increased maternity waiting home utilization(6, 27).

According to studies done in Mettu district and SNNPR Ethiopia the use MWH significantly associated with giving birth before and past experience of MWH utilization. In this regard those who have previous experience of using maternal waiting home was more likely to use maternal waiting home during current pregnancy(28, 29).

As indicated by study done at SNNPR Ethiopia presence of obstetric complications in previous childbirths is significant factors that affect the utilization of maternal waiting home in current pregnancy. In this those mothers with in previous obstetric complications were more likely to use MWH(30).

2.2.3Maternal related factors

According to the qualitative study conducted in in Afar pastoral community, northeast Ethiopia high household workload and lack of substitute for childcare and household chores during pregnancy and childbirth are another factors that hinder the utilization of maternal waiting home utilization by pregnant mothers(24)

Study conducted in indigenous regions of Guatemala indicates that Food insecurity and lack of sustainable budget were another maternal factors that can significantly hinder the utilization of maternal waiting home by pregnant mothers(31). Maternal knowledge about the existence of the maternal waiting home is in the nearby health facility has significant effect on utilization of maternal waiting homes. Those having poor knowledge about existence of the maternal waiting home hinder the utilization(31).

Presence of decision-making authority has significant positive effect on utilization of maternal waiting home. Those mother who have authority to decide in her house hold have more likely to utilize maternal waiting home(18)

2.2.4 Facility related factors

As indicated by Study conducted in Zambia district safety and quality of service in maternity waiting home is significant factors that affect the utilization of maternal waiting home by pregnant mothers. In that poor quality and safety of service maternal waiting home decrease the utilization of maternal waiting home(32)

Lack of utilities like electricity, water and a latrine in health facility where maternal home found is another facility related factor that hinder the utilization of maternal waiting home(5)

Lack of transportation to take mothers back home after delivery were one of the significant factors that hinder the utilization of maternal waiting homes by pregnant mothers(11). According to study done in indigenous regions of Guatemala maternity waiting homes in indicates inadequate provision of culturally appropriate care were the most important factor identified as hindering the utilization of maternity(33)

2.3 Conceptual framework

This conceptual framework is developed by reviewing literatures cited in preceding sub-sections of the literature review section. In this study the utilization of MWH is considered as dependent factor that can be affected by different independent factors. The independent factors that affect the utilization of MWH can be broadly classified in to four themes. These are socio-demographic factors, obstetric factor, maternal related factors and facility related factors.

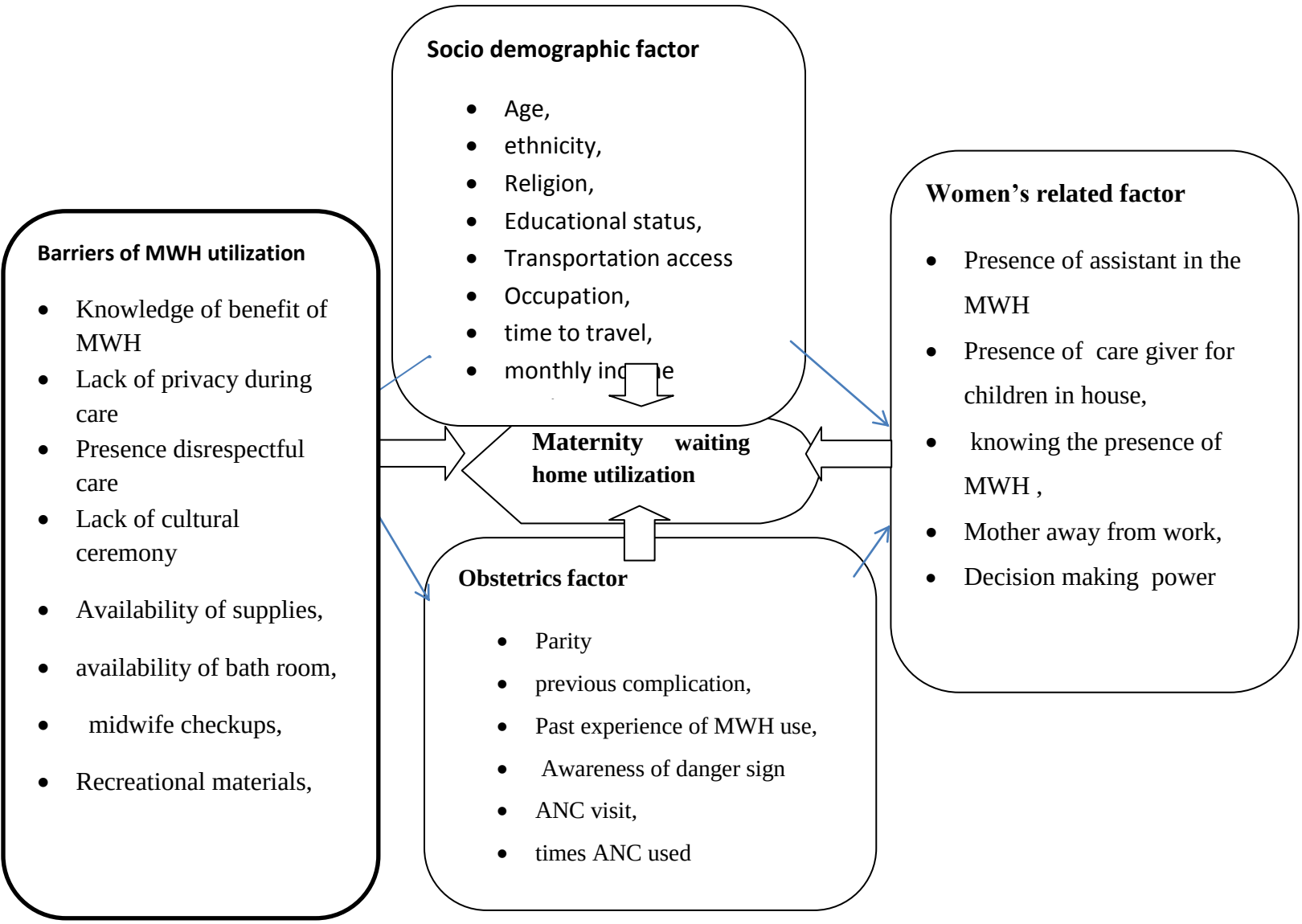


Figure: 1 conceptual framework of maternity waiting homes use and associated factors among last six month delivered women in bullen district, Benishangul-Gumuz region, western Ethiopia: 2024

(6, 11, 13, 31)

CHAPTER THREE

OBJECTIVES

3.1 GENERAL OBJECTIVE

- To assess the magnitude and associated factors of maternity waiting home use among women delivered in last 6 month in Bullen district, Benishangul-Gumuz Region, Western Ethiopia, 2024

3.2 SPECIFIC OBJECTIVES

- ✓ To determine the magnitude of maternity waiting home use among delivered women in last 6 month in Bullen district, Benishangul-Gumuz Region, Western Ethiopia, 2024
- ✓ To identify the associated factors of maternity waiting home use among delivered women in last 6 month in Bullen district, Benishangul-Gumuz Region, Western Ethiopia, 2024
- ✓ To explore barriers of maternity waiting home use among delivered women in last 6 month in Bullen district, Benishangul-Gumuz Region, Western Ethiopia, 2024.

METHOD AND MATERIALS

4.1 Study area and period

The study was conducted in Bullen district,Metekel zone, Benishangul-Gumuz region North West Ethiopia. The study was conducted from April 20, 2024 to July 20,2024. Bullen district is one of the 7 districts found in Metekel zone of Benishangul-Gumuze regional state.It is located at North Eastern part of Ethiopia at about 632 Km from Addis Ababa.Bullen is bordered by Dangur in the northeast, by Dibati district in the east, by Wombera in the south and by Guba in the west. The four largest ethnic groups reported in Bullen were Shinasha (40.5%), Gumuz (34%), Amhara (16.5%), and Agew (3.3%). The district has 22 kebeles (20 rural and 2 urban) with a total population of 69,801,of which males are 34,202 and females are 35,599.The number of delivered mothers in six months reported from Bullen health office is up to June 30/2015 E.C in the district is 6632.The district has three heath centers, and 22 health posts. The district has currently three maternity waiting homes which provide services for 22 kebeles.

4.2 Study design

A community-based mixed method study was conducted among women who gave birth in the last six months. The study was employing mixed methods: quantitative and qualitative methods. Qualitative study was employee an in-depth interview and FGD to explore the barriers of maternity waiting home use among delivered women in Bullen district, Benishangul-Gumuz Region, Western Ethiopia.

4.3 Population

4.3.1 Source populations

4.3.1.1. Quantitative study

The source population for this study was all women who gave birth within last 6 months before data collection in Bullen district, Metekel zone,Benishangul-Gumuz region..

4.5 Study population

For quantitative study the study population was all women who gave birth in the last six month in the selected kebeles

For qualitative the population was purposively selected health professionals working in health facility where MWH found and mothers delivered in last six month who have knowledge on MWH purposely selected. The study participants were recruited from purposely selected health facility of study areas.

4.6 Inclusion and exclusion criteria

4.6.1 Inclusion criteria

Woman who gave birth within 6 months and live more than 6 months (formal residents) in kebeles of Bullen district.

4.6.2 Exclusion criteria

Those women who had difficulty in communication due-to severe illness or unable to respond during the study were excluded.

4.7 Sample size determination and technique

4.7.1 Sample size determination

Sample size determination for 1st specific objective

Single population proportion formula was used for sample size calculation based on the assumption of proportion of maternal waiting home utilization in study from Gimbo districts of keffa zone which is 42.5% (36) with 95% confidence interval, 4% margin of error and 10% none response rate. Therefore, the formula used to calculate the sample size is outline below;

$$ni = \left(\frac{za/_2{}^2(p(1-P))}{d^2}\right)$$

Where; n= the desirable calculated sample size

Z (α/2) =1.96 (95%)

P = 42.5%

d = degree of accuracy desired (4%)

$$n = \frac{(1.96^2)*0.42(1-0.42)}{(0.04^2)} \qquad n = 585$$

By multiplying design effect of = 1.5 * 585 = 878

By adding 10% non-response rate = 878+88 = 966

Sample size determination for 2nd specific objective

The sample size for 2nd objective (associated factors) was determined by using the double population proportion formula, and three key factors were taken from the previous literatures. According to the following assumptions, the sample size was computed by using Epi info version 7.2.5 software ((stat calc) with the following assumptions, 95% CI, level of required study power was 80% and Ratio 1:1(Table 1)

Table1: Sample size determination for factors associated with maternity waiting home use among delivered women in Bullen district, Benishangul-Gumuz Region, Western Ethiopia, 2024

Factors	Outcomes in %		CI	Power	AOR	S. Size	Final Sample Size(n) after NRR and design effect	Ref
	Exposed	Unexposed						
Maternal education(no education vs Secondary and above	80.9	39.8	95%	80%	6.4	52	86	(21)
Number of live birth(<4 vs >=4	63.9	27.3	95%	80%	4.8	134	221	(2)
Family support(no vs yes)	42.9	5.5	95%	80%	12.9	98	161	(16)

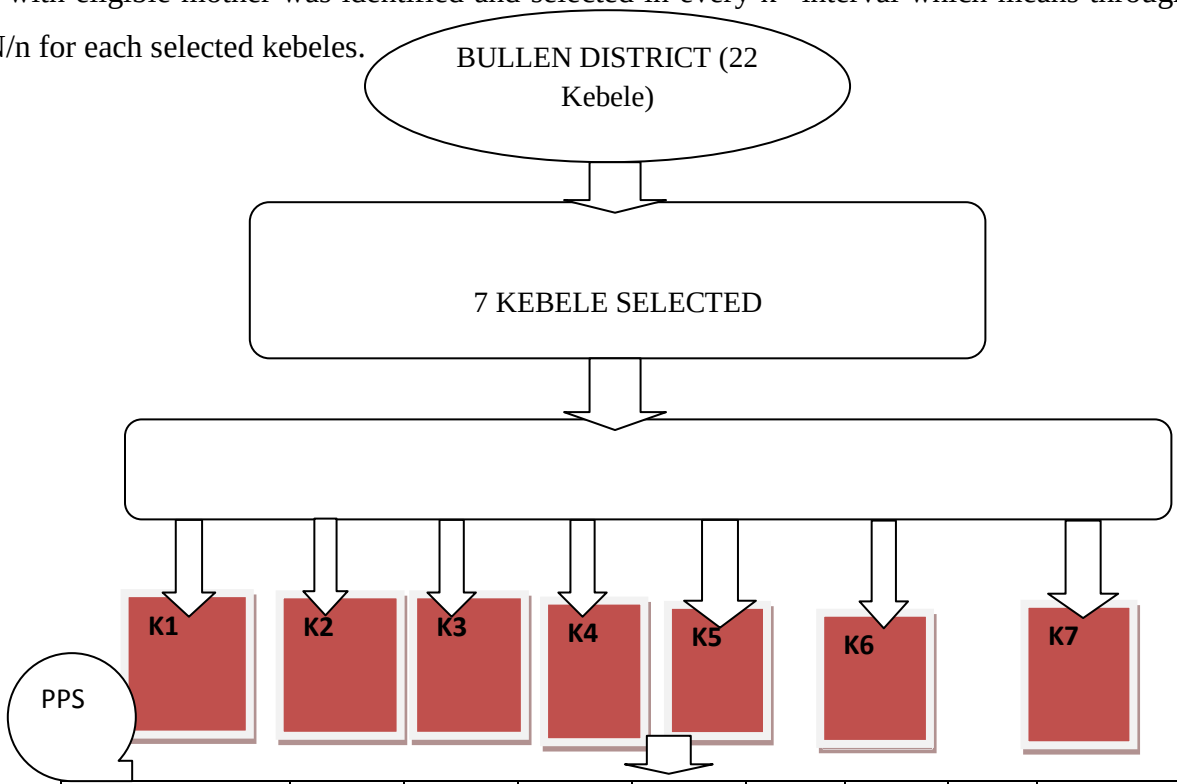
Sample size calculated for 1st specific objective is greater than that of second specific objectives, therefore it is used as the final sample size, that = 966

For qualitative part,

The study design for this part was Grounded theory and sample size was determined by the theoretical saturation of ideas. Three FGD and 10 key informants were used as the sample size. In FGDs, further continuation of probing and discussion was stopped when the participants repeat data which was already provided by their co-FGD discussants. However, the actual sample size was determined based on until the content reached saturation.

4.7.2 Sampling technique

A multistage sampling technique was used to select the study population. In the study district there are 22 kebeles; in the first stage by using simple random sampling methods seven kebeles was selected. From woreda health office report, the number of mothers who gave birth within the last six months in the selected seven kebeles was 2,712. The sample size was proportionally allocated to each kebeles based on the number of deliveries within six months. Finally, the house hold with eligible mother was identified and selected in every k^{th} interval which means through k= N/n for each selected kebeles.



Kebeles	K1	K2	K3	K4	K5	K6	K7	Total
Delivered	488	282	278	335	507	484	338	2712
Sample	174	100	99	119	181	172	121	966

966

Figure 2: diagrammatic representation of sampling methods on utilization of mothers waiting home utilization and associated factors in Bullen District Metekel zone Benishangul-gumuz region North West, Ethiopia, 2024 G.C

Key; the randomly selected seven kebeles are K1: Bullen 02, K2: Meti, K3: Amanji, K4: Matta, k5: Adisalem, K6: Dobi, and k7: Baruda.

For qualitative part study health professionals for in depth interview purposefully selected based on presence of MWH in facility and their working area in the health facility and for FGDs participant consists of mothers delivered in last six month living in purposely selected kebele which have well understand MWH select purposely and their willingness to share information. The selection was based on MCH responsibility and presence of MWH in health facility. The recruitment process continued in a similar way until a theoretical sample was achieved.

4.8 Data collection tool and procedure

4.8.1 Quantitative data collection procedure

Interviewer based structured questionnaire was used. The questionnaire for quantitative data collection consists of socio-demographic characteristics, obstetric, maternal and facility related factors. Data was collected through face-to-face interview by trained data collectors. Pre-tested was done on 5% of the study population. The questionnaire was adapted by reviewing different literatures.

4.8.2 Qualitative data collection procedure

For qualitative study, data was collected by interview guide for IDI and FGD about maternity waiting home. The interview was recorded by using audio recorder supplemented with note taking. In-depth interview and focus discussion was conducted until data saturation.

4.9 Data quality management

To keep data quality the questionnaire (English version) was translated into Amharic and translated back to English by different language experts with the help of a health professional. Seven individuals who have Diploma in nurse/midwifery and who are fluent in local language

and Amharic were recruited for the actual data collection. Two supervisors having BSc. degree in public health was recruited to supervise data collection.

One day training was given to the data collectors and supervisors on the objective, relevance of the study, and confidentiality of information, respondent's right, about pretest, informed consent and techniques of interview. A week before actual data collection, the questionnaire was pre-tested on delivered mothers in nearby Mandura district on 5% of the final sample by principal investigator. After pre-testing, amendments were made accordingly. The supervisor & the principal investigator were making frequent checks on the data collection process to ensure the completeness & consistency of the gathered information and errors found during the process was corrected.

For qualitative part:-To increase the quality of the data, different data quality improvement approaches was taken. First, the principal investigator conducts video-based sessions on how to reach participants and how to handle interviews with sensitive issues. Second, all possible efforts were made to recruit study participants who were well-experienced and who could communicate well. Thirdly, to increase the trustworthiness of study participants, the principal investigator was approach each study participant in a friendly manner and issues of privacy and confidentiality was ensured for study participants before the interview.

To ensure credibility, the researcher clarified the method of data analysis, contents of the checklist, and any other issues at the time of IDI ad FGD for participants in order to validate the results. To warrant conformability, an investigator was describe the purpose of the study, an audio record, the objective of the study, norms for discussion, time allotment, every step of data analysis, and ethical related issues for IDI and FGD participants, and the data was preserved.

Also, the interviews were executed in private places, as agreed upon by both the principal investigator and study participants. Lastly, a brief explanation of the purpose of the study was given to each study participant to let them discuss freely and show interest. The in-depth interview record and note-taking was transcribed immediately after the interview is conducted. The recorded tape was listened to, and transcriptions will be read and re-read several times carefully. From the potentially important and provisional notes, the researcher was note the interrelationships, connections, and patterns that emerged in the data.

4.10 Study variables

Dependent variable:

- Utilization of maternity waiting home.

Independent variables: -

- Socio-demographic variables:
- Obstetric factors;
- Maternal related factor;
- Facility related factor:

4.11 Operational definitions

Maternity waiting home: Residential facilities which are located near a well- established health facility, where pregnant women stay awaiting their delivery in the adjacent health facility(1)

Use of MWH: - mothers who were admitted and waited in MWH service before starting of labor or during PNC (5, 34).

Distance: - Distance of government health institution explained time taken on walk on foot from home it was fair if it is less than one hour traveling time on foot for this study.

Woman's decision-making power: women who generally made decisions independently were considered to have decision-making power.

Access to transportation: - having public transport services access from home to health facility.

4.12 Data Analysis Procedure

After data collection, a filled questionnaire was coded. The data was entered using Epi data version 3.1 statistical software and analyzed using SPSS version 25. Data cleaning was performed to check for accuracy, and consistencies and missed values and variables. Incomplete and inconsistent data was excluded from the analysis. The descriptive analysis such as proportions, percentages, means, and measures of dispersion, was used to describe the data.

Variables significant at P value of less than 0.25 in bivariate logistic regression was candidate to enter in to multivaribale regression analysis. Adjusted odd ratio, 95% CI and p value was used to determine the strength of association and statically significance.

For qualitative part:-Prior to analysis, the voice records was transcribed word by word in Amharic language as soon as possible after the FGDs as well as IDI and notes was also be organized. Then, the data was translated into English language. After that, the translated data was exported into Open Code 4.02 software for analysis. Then, the data was broken into many sentences and codes were formed, and then content thematic analysis was conducted for this study. Finally, an original verbatim quotation from participants was used to support or augment the data from quantitative analysis. Finally the data was presented in text, tables, and figures.

4.13 Ethical considerations

An ethical clearance was obtained from the Institutional Review Board of Bahir Dar University and Official letter of cooperation was written to Bullen district health office. Then Letter of cooperation was also written to each health post and kebeles from district health office. Following an explanation of the purpose of the study written consent was obtained from participants. Also affirmation that they are free to withdraw consent and discontinue participation without any form of prejudices was made. Confidentiality of information and privacy of participants was assured for all the information provided, to preserve the confidentiality the data was not exposed to the third part except the principal investigator and advisor.

4.14 Dissemination of the work

The findings of the study will be shared with the appropriate organizations and stakeholders. The dissemination plan for the research results includes: a presentation at BahirDar University; submi ssion of the report paper to the Bullen district health office; submission of the report paper to the Bullen district administrative body, zonal health department, and regional health biro of the Beni shangul gumuze region

5. RESULT

5.1 Socio-demographic characteristics

The total of 957 mothers was participated in the study with a response rate of 99%. Majority,910 (95%) of the respondents were married. Four hundred fifty five (47.5%) were Gumuz in ethnicity followed by Amhara 214(22.4%). Muslim religion followers were 478(49.9%) followed by orthodox 419(43.8%).

Three hundred eighty-four (40.1%) mothers were unable to write and read while 360(37.6%) of their husbands were unable to read and write. About 576(60.2%) the mothers were house wife in their occupation while 384(40.1%) of their husbands were farmer in their occupation.

About 45% of the respondent responded that their house hold monthly income was less than 2000 ETB. Majority, 798 (83.4%) of the respondents were rural in their residence.

Table 2: socio-demographic characteristics of mothers who delivered in last six months in Bullen district, Benishangul-gumuz region, western Ethiopia

Variable	Category	Frequency	Percentage
Marital status	Married	910	95.1
	Single	24	2.5
	Widowed	12	1.3
	Divorced	11	1.1
Ethnicity	Amhara	214	22.4
	Gumuze	455	47.5
	Agew	204	21.3
	Shinasha	60	6.3
	Others	24	2.5
Religion	Orthodox	419	43.8
	Muslim	478	49.9
	Protestant	48	5.0
	Catholic	12	1.3
educational status	Unable to read and write	384	40.1
	Only read and write	383	40.0
	Primary education (grade 1-8)	130	13.6
	Secondary education (grade 9-10)	36	3.8
	Higher education	24	2.5
Husband educational status	Unable to read and write	360	37.6
	Only read and write	323	33.8
	Primary education (grade 1-8)	154	16.1
	Secondary education (grade 9-10)	72	7.5
	Higher education	48	5.0

Occupation	Housewife	576	60.2
	Merchant	47	4.9
	Gov't employee	143	14.9
	Daily laborer	96	10.0
	Others	95	9.9
husband occupation	Merchant	143	14.9
	Private employee	96	10.0
	Gov't employee	143	14.9
	Farmer	384	40.1
	Daily laborer	191	20.0
family size	less than 4	176	18.4
	4-5	589	61.5
	more than 5	192	20.1
Monthly income in birr	<2000 ETB	430	44.9
	2000-4000 ETB	176	18.4
	>4000 ETB	351	36.7
Access to transportation	easy	160	16.7
	difficult	797	83.3
Means of transportation to health facility in emergency	Walking by foot	143	14.9
	Ambulance	750	78.4
	others	64	6.7
Duration to reach to the nearby HF	Less than 60 minutes	463	48.4
	60 minutes to 2 hour	399	41.7
	2 hour to 2 ½ hour	95	9.9
Residence	Rural	798	83.4
	Urban	159	16.6

5.2 OBSTETRIC FACTORS

Six hundred-fifty-eight (68.8%) of the respondent have ANC follow up during their last pregnancy. The number ANC follow up during their last pregnancy was less than 2 times for 408(42.6%) of the mothers. One tenth, 108(11.3%), of the respondent had pregnancy complication during their last pregnancy. About 646(67.5%) of the respondent women had given birth of their last child in health facility.

Table 3: obstetric factors of mothers delivered in last six months in Bullen district, Benishangul-gumuz region, western Ethiopia

Variable	Category	Frequency	Percentage
have ANC follow up	Yes	658	68.8
	No	299	31.2
number of ANC follow up	less than 3	408	42.6
	3-4	526	55.0
	more than 4	23	2.4
number of pregnancy	less than 3	264	27.6
	3-5	490	51.2
	more than 5	203	21.2
recent pregnancy complication	Yes	108	11.3
	No	849	88.7
Type of pregnancy complications	Vaginal bleeding	24	2.5
	Severe headache, edify	24	2.5
	Fever	12	1.3
	Abdominal pain/pre- term contractions,	12	1.3
	Decreased fetal movement,	12	1.3
	Edema/ body swelling	24	2.5
Last place of delivery	Health facility	646	67.5
	At home	311	32.5

5.3 Women's related factor

About 263(27.5%) of the respondent does not know that there was maternity waiting home in the health facility. About three fourth (75%) of the respondent were responded that transport to health facility from their house was not affordable. About 706(73.8%) of the respondent responded that self-decision making is impossible in their house to use maternity waiting home. About 359(37.5%) of the respondent responded that it is impossible to get maternity waiting home before delivery.

***Table 4: Women's related factor of mothers delivered in last six months women in bullen district, benishangul-gumuz region, western Ethiopia*.**

Variable	Category	Frequency	Percentage
know that health facility had MWH	Yes	694	72.5
	No	263	27.5
Where did you get the information	From health extension workers	240	25.1
	From Health development leaders	119	12.4
	From neighbors	119	12.4
	From health center	239	25.0
	Other	240	25.1
Transport to and from MWH	Affordable	240	25.1
	Not affordable	717	74.9
Self-Decision making to use MWH	Possible	251	26.2
	Impossible	706	73.8
Bringing own cooking utensils	Possible	47	4.9
	Impossible	910	95.1
Children are taken care	Possible	718	75.0
	Impossible	239	25.0
Bringing a child	Possible	825	86.2

to MWH	Impossible	132	13.8

5.4 Utilization of maternity home

The magnitude of MWH utilization during the last childbirth was 26.2% with 95% CI = 23.4% to 29.0%.

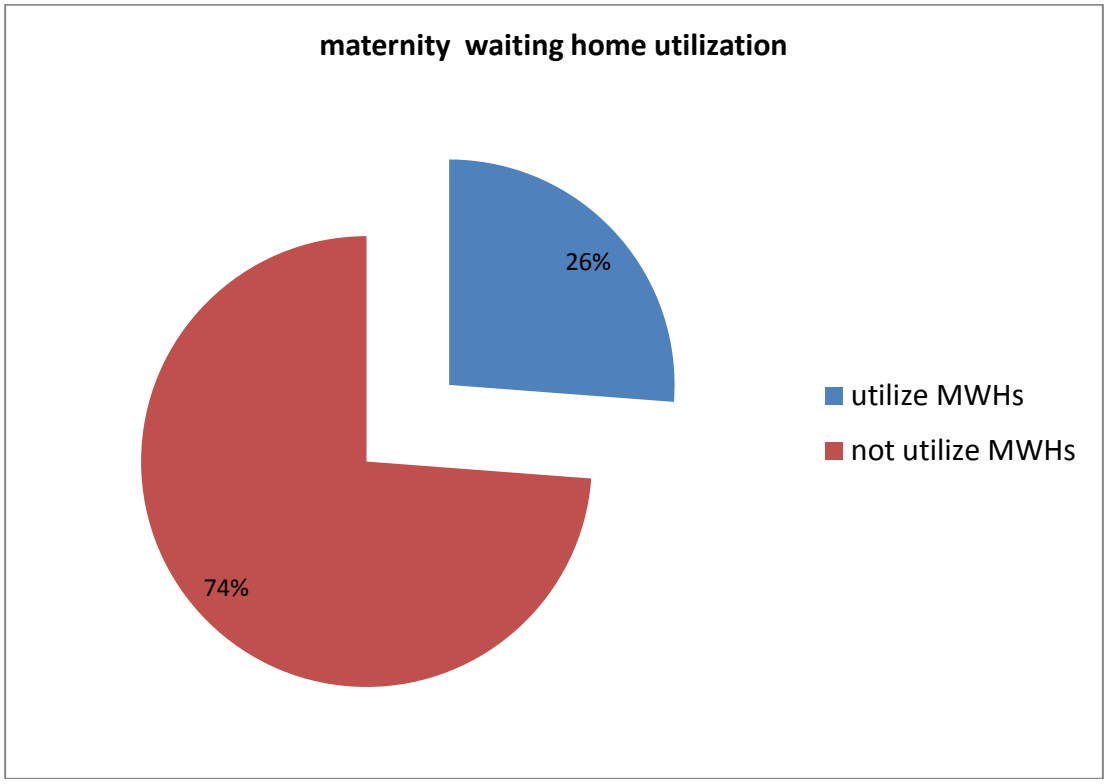


Figure 3: utilization of maternal waiting home among mothers delivered in last six months in bullen district, benishangul-gumuz region, western Ethiopia.

The main reason for not utilizing maternity waiting home in this study was no one care previous children in home 303(31.7%) followed by past favorable condition during delivery at home 271(28.3) and lack transport 223(23.3).

Table 5: utilization of maternal waiting home among mothers delivered in last six months in Bullen district, Benishangul-gumuz region, western Ethiopia.

Variable	Category	Frequency	Percentage
Reasons for seeking care at MWH	for a good pregnancy outcome	99	10.3
	previous use of a maternity waiting home	68	7.1

	referral from a health facility or a health worker	84	8.8
Gestational age at admission to MWH (in months)	7	12	1.3
	8	115	12
	9	124	13
Duration stayed in MWH (in days)	7 days and more	179	18.7
	Less than 7 days	72	7.5
Who decided to seek care at MWH	my self	44	4.6
	husband	16	1.7
	jointly	80	8.4
	health worker	111	11.6
why you did not utilized MWH	Lack of transport	223	23.3
	No one care children at home	303	31.7
	Past favorable condition	271	28.3
	Not be away from work	80	8.4
	Others	80	8.4

5.5 Factors associated with maternity home utilization

All variables were used for the binary logistic regression analysis. Among these, 8 variables (maternal education, husband education, maternal occupation, family size, ANC follow up status, number of ANC follow up, previous recent pregnancy complication and self-decision making habit to utilize MWH) had an association with utilization of maternity waiting home in bivariable logistic regression analysis at a p-value of < 0.25.

In multivariable logistic regression, some factors were depicted as significant (P-value less than 0.05) factors that affect the utilization of maternity waiting home. The factors that showed statistically significant association in the multivariable model were family size, ANC follow up status, pregnancy complication, and self-decision-making power to utilize maternity waiting home.

The finding showed that mothers who had a family size of less than 2 were 2 times more likely to utilize maternity waiting home [AOR (95% CI)= 2.17(1.24, 3.80) than that of mothers with

family size of greater than five. Similarly, the study found that mothers who had 4-5 family members were 2.3 times more likely to utilize maternity waiting home [AOR (95% CI) = 2.30(1.45, 3.65)] than that of mothers with household members greater than 5.

Mothers who have experienced pregnancy related complication during their index pregnancy were 2 times [AOR (95% CI) 2.03(1.25, 3.32); p-value = 0.004] more likely to utilize maternity waiting home than those who does not experienced pregnancy complication.

Participants who had at least one ANC follow up were about 4 times more likely [AOR (95% CI) 3.56(2.25, 5.61) p-value = 0.000 than those do not have ANC follow up.

Furthermore, mother who can decide to utilize maternity waiting home by themselves were about 2 times more likely utilize maternity waiting home [AOR (95% CI); 1.88(1.32, 2.68); p-value = 0.001 than those who does not decide by themselves

Table 6: Factors associated with maternity home utilization among Women delivered in last six months in bullen district, benishangul-gumuz region, western Ethiopia.

Variables	Category	MWH Utilization		COR(95%CI)	AOR(95%CI)
		No	Yes		
Maternal education	No formal education	572	195	1	1
	Primary education	102	28	0.81(0.51, 1.26)	2.31(0.45, 11.9)
	Secondary and above	32	28	2.57(1.51, 4.37)	1.83(0.66, 5.10)
Husband education	no formal education	504	179	1	1
	Primary education	122	32	0.74(0.48, 1.13)	0.67(0.21, 2.17)
	Secondary and above	80	40	1.41(0.93, 2.13)	0.95(0.47, 1.89)
Maternal occupation	Housewife	436	140	1	1
	Merchant	27	20	2.31(1.26, 4.24)	1.28(0.46, 3.61)
	Gov't employee	96	47	1.53(1.03, 2.27)	0.87(0.51, 1.47)
	Daily laborer	68	28	1.28(0.79, 2.07	1.14(0.68, 1.92)
	Others	79	16	0.63(0.36, 1.12)	0.95(0.27, 3.28)
Family size	**less than 4**	**126**	**50**	**2.32(1.39, 3.90)**	**2.17(1.24, 3.80)**
	4-5	**416**	**173**	**2.44(1.57, 3.78)**	**2.30(1.45, 3.65)**

	more than 5	164	28	1	1
have ANC follow up	**Yes**	**443**	**215**	**3.55(2.41, 5.21)**	**3.56(2.25, 5.61)**
	No	263	36	1	1
number of ANC	1-3	532	164	1	1
	4 and above	174	87	1.62(1.19, 2.21)	1.15(0.74, 1.78)
pregnancy complication	**Yes**	**66**	**42**	**1.95(1.28, 2.96)**	**2.03(1.25, 3.32)**
	No	640	209	1	1
Self-Decision making to use MWH	**Possible**	**168**	**83**	**1.58(1.16, 2.17)**	**1.88(1.32, 2.68)**
	Impossible	538	168	1	1

5.6. In-depth Interview and Focused Group Discussion (FGD) Results

5.6. 1 Barriers to utilization of maternal waiting home

In the study, 15 codes, 6 subthemes, and 2 themes were identified. The themes and subthemes are shown as follows (Table 7).

Table 7: Presentation of the themes and sub-themes of to utilization of maternal waiting home in last six months in bullen district, benishangul-gumuz region, western Ethiopia, 2024

Themes	**1. Individual related factors**	**2. Institution related factors**	Remark
Sub-Themes	**Individual related factors** • Presence of assistant in the MWH and home • Knowledge the presence of MWH , • Decision making power	**Institutional related factors** • Lack of companionate care in MWH • Lack of cultural ceremony • Lack of supplies,	
Codes	**Lack of assistant** ✓ Lack of child care giver at home ✓ Lack assistance in MWH **Knowledge of MWH** ✓ Don't know presence of MWH ✓ No ANC ✓ Lack information where to get MWH	**Lack of companionate care** ✓ Lack of privacy ✓ Lack of respectful care **Lack of cultural ceremony** ✓ Lack of food items used for cultural ceremony ✓ Lack utensils used for	

	✓ Don't know benefit **Decision making power** ✓ My husband don't allow ✓ My religion	cultural ceremony **Lack of supplies** ✓ Lack of clean water ✓ Lack of comfortable matters and blanket	

Theme 1. Individual related barriers

1.1 Lack of assistant

While the majority of the women interviewed in the qualitative part reported that they are not using MWH due to that there is no assistant who care their previous children in home. The others complained about not presence of someone with them in MWH to help them as barrier for utilization of MWH.

A 30-year-old women who had delivered in last 6 month participated in FGD 1 expressed this notion as follows:

> *"I know that there is MWH in my nearby health facility and its benefit during last pregnancy but due to that there is no one who cares my 2 previous children at home, I detained myself at home until labour start."*

IDIP-6, 28 years old midwife working MCH participated in IDI expressed this notion as follows:

> *"Some of the mothers worry about their home and child in home after they admitted to MWH and they want to go home and come again when labour start*."

IDIP-1, 18 years old prime gravid mother participated in IDI expressed this notion as follows:

> ***"****I have never stayed in health facility alone for one day. My reason for not using MWH is because no one can stay with me in MWH, My mom or husband was so busy."*

1. 2. Knowledge of MWH

The participants of both IDI and FGD discussed that lack of knowledge about presence of MWH, and benefit of MWH utilization are the main barriers of MWH utilization.

25 years old FGD 3 participating mother reported this notion as follows:

> *"I don't know presence of this type of service when I am pregnant and I don't have information from any-one."*

IDIP-4, 22 years old nurse working delivery room participated in IDI expressed this notion as follows:

> *"…some of the mothers does not follow ANC until their delivery, due this reason they don't have information about MWH and they don't even know the presence of MWH in the facility nearby them."*

IDIP-2, 28 years old health officer participated in IDI expressed this notion as follows:

"Majority of the mothers don't know the benefit of using MWH and even they underweight the benefit using MWH by comparing it with home delivery.''.

1. 3. Decision making power

One of the barriers to not utilizing MWH for the majority of participants was lack self-decision making power.

IDIP-5, 35 years old midwife working ANC clinic and having 15 years' experience participated in IDI expressed this notion as follows:

> *"When I counsel mothers who come to ANC to come MWH at the end their pregnancy for better outcome, they respond to me that they will discuss the issue with their family specially their mother and husband then I will decide to use if they allow me.*

Theme 2. Institution related barriers

2.1 Lack of privacy in MWH

Some of the mothers reported that lack of privacy and respectful by health professionals during care as one of the institutional barriers to utilizing MWHs.

A 32-year-old mother who had 5 children and give birth the 5th child in last 6 month participated in FGD 2 expressed this notion as follows:

> *"I don't want to stay in health facility before delivery and even I want to give birth in my home if the labour is not such much difficult, this is because there is lack privacy in there, 2 to 3 mothers wait for delivery in one room, this does not give comfort as my house, I can't talk there as I talk my home, there is no comfort what to eat and drink. There is also frequent check up by different professionals in maternity waiting home and some the professionals does not respect privacy."*

IDIP-7, 24 years old BSc nurse participated in IDI expressed this notion as follows:

> *"Earlier the privacy was given attention, but now due to student who came to practice in health facility and junior professionals employed the privacy was less. It has reduced the utilization MCH including MWH by a lot in our facility.''*

Subtheme 2.2 Lack of cultural ceremony

Some of the mothers participated in FGD cited a lack cultural ceremony in health facility are another barriers for the utilization of MWH.

23 years old women participated in FGD 2 expressed this notion as follows:

> *"if there is no cultural ceremony after birth, it does not seem that I have given birth, so in the health facility it is difficult to get food items and utensils used to prepare cultural ceremony, that is why I am not volunteer to utilize MWH."*
>
> "Even I get material important to prepare cultural ceremony, in the health facility, I can not get my neighbour who prepare it and happy with me. So thinking cultural ceremony in the facility is not possible",

Subtheme 2.3 Lack of supplies

The results demonstrated that women's' use of MWH was discouraged by lack of some supplies in the health facility like clean water, comfortable blanket and matters

19 years old primi gravid mother participated in FGD 1 expressed this notion as follows:

> *"The supplies like blanket and mattersof the health facility were not comfortable as I use in my house, the odors of blanket very difficult to tolerate for one day even that is why I not prepare to stay in MWH"*

IDIP-9, 28 years old IESO professional participated in IDI expressed this notion as follows:

> *"Some women who come from rich family does not prepare to stay in the health facility due to lack of some facility that they can get in their home like clean water, comfortable clothes, this will hinder the utilization of MWH."*

6. DISCUSSION

Utilizing MWHs will create an opportunity for facility-based delivery, thereby decreasing maternal and perinatal morbidity and mortality. Therefore, this study was conducted to assess the utilization of MWHs and associated factors among mothers who gave birth in the last six months in Bullen district, Benishangul-gumuz region, western Ethiopia.

This study revealed that MWH service utilization was 26.2% with 95%CI (23.4% to 29%). This finding was consistent with studies conducted in Arsi zone, Ethiopia (23.6%) and Zambia (27.3%)(16, 35). This finding is lower than studies conducted in Ethiopia, including Jimma

district (38.7%) and Bench Maji zone (39%)(30, 36).This finding is also lower compared to two studies conducted in Zambia, in which (31%) of women used MWH (28, 37). The discrepancies might be due to the differences in study settings, in which the aforementioned studies were conducted at a facility level, whereas the current study was community-based. For instance, the study in the Jimma district included all women who gave birth in health facilities, so the chances of obtaining MWH- users might be high among those women. It is believed that admission into the MWH increases the chances of women giving birth at health facilities.

In contrast, the MWHs utilization in the current finding is higher than another study conducted in the Jimma Zone, Ethiopia (7%)(36). The possible discrepancy might be due to differences in the population background, wherein among the total study participants in the Jimma zone, only (30%) of them lived remotely from the health facilities (the distance from homes to the nearest health center takes 30 minutes and more). However, in this study, 52% of the participants traveled for more than an hour to reach the nearby health facilities.

This study indicated that having ANC visit was significantly associated with women's knowledge regarding MWHs. Having ANC visits increases women's knowledge regarding MWHs by 3.56 times as compared to its counterpart. This is in line with different study conducted Ethiopia (36, 38, 39). The possible explanation might be women who had ANC visits can discuss with health care providers about different health care activities and will have better information regarding danger signs and obstetrics complications that may occur during pregnancy and childbirth and also have awareness regarding birth preparedness and complication readiness..

The present study indicates that the presence of complications in their last pregnancy is one significant factor for MWH utilization. Thus, mothers who experienced a complication during their last pregnancy were more likely to utilize MWHs than their counterparts. This finding was in line with study conducted in gedeo zone(40), Teltelle district, Ethiopia(16), Rural Rwanda(41)This could be due to the fact that women who have experienced birth complications may be worried about having similar occurrences during the next delivery. Therefore, they prefer to be near to the health facility by staying at MWHs.

The present study indicated women's decision-making power was significant factor associated with utilization of maternity waiting home. Previous studies support this finding in which women who had experienced disagreements or challenges from their husbands or other family members were not able to utilize MWHs,(28, 42). Previous Evidence show that women's involvement in health care-related decisions was an important factor in MWHs utilization (43).

The reason might be that women who have power to decide in their health and who receive support on different household duties will use MWHS freely. In turn, it could have a significant effect on the knowledge of women about MWHs.

7. LIMITATION OF THE STUDY

The primary outcome relied on women's self-reported MWH use which may be subject to recall bias. However, this risk is likely low because staying at an MWH prior to delivery is expected to be a notable experience. Women's self-reported travel times estimates may not accurately reflect physical accessibility of MWHs; calculation of distances is recommended for future studies to assess the distance threshold for MWH use.

This study results may have generalizability limited to districts with similar profiles

The study had several limitations. First, cause and effect relationships could not be identified because of the cross-sectional nature of the study and also provided poor prediction and understanding of behavior, since the time order of having an attitude, beliefs, perceived norms, perceived behavioral control, self-efficacy, intention, and the behavior cannot be discerned at one time.

The prospective study design is recommended when IBM is used as a conceptual framework to measure the attitude, subjective norms, perceived control, self-efficacy, intention to behavior, and behavioral performance at two separate points in time, but due to a lack of time and resources the current study did not employ a prospective study, so a future study should utilize an analytical prospective study design.

8. STRENGN OF THE STUDY

These studies have its own strength. This study included delivered mothers on maternity waiting home utilization which shows the exact status of maternity waiting home utilization and factors affecting it.

Data collectors were recruited from other nearby districts in order to decrease social desirable bias and data contamination; training was given to data collectors and supervisors.

The study result may have use Both Qualitative and quantitative method as strength.

9. CONCLUSION AND RECOMMENDATION

9.1 conclusion

In this study, maternity waiting home utilization was low. Family size, ANC follow up status, number of ANC complications during pregnancy, and maternal decision-making power was positively associated with the utilization of MWH.

9.2 Recommendation

As ANC follow up is significant factor that influence the utilization MWHs. Therefore, strengthening antenatal care follow-up, and identifying complications during pregnancy.

Stakeholders should work to improve the accessibility of maternal and child health services and better to arrange programs that will increase maternal and child health service utilization.

Benishangule Gumuze Regional Health Bureau

Should develop further guidelines based on the ministry of health directions and work on barriers of maternity waiting home utilizations

Should initiate governmental and none governmental partners to support the initiatives**.**

As maternal decision making power affect the utilization of MWHs in current study, it is better to promote women's decision-making power as well as participation in income generating work, this will increase decision making power in their home.

Metekel Zonal health Department

Should have coordinate MWH services with other maternal health programs

Should mobilize communities, governmental and none governmental institutions to increase utilization of maternity waiting home utilization.

Should evaluate the services of maternity waiting homes in the district level and share experience to other districts

Bullen Woreda Health Office

Having complication related with previous pregnancy significant factor. This indicate that those who did not experience with previous pregnancy complication does not know risk, Therefore, strengthening antenatal care follow-up, improving knowledge on MWH and identifying complications during pregnancy, may improve the utilization of maternal waiting homes. Thus, health education communication regarding danger signs of pregnancy,

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Bahir Dar University

Department of Reproductive Health and Population Study

Questionnaire to assess the magnitude of maternity waiting home utilization and associated factors among women who gave birth in 6 month before data collection in Bullen district Metekel zone Benishangul gumuze region North West Ethiopia

Hello! My name is ----------I am one of the data collectors for the research team investigating maternity waiting home utilization and associated factors in Bullen district

I have identified you as a study participant hoping that you would be willing to help me by providing with some information. I have several questions which I would like to ask you, if you have the time and are willing. All information you provide will be kept confidential. I will not include any identifiers, such as your name or exact address. Only honest answers would contribute to improvement of maternity health services. I understand that your role in the success of the research is vital and I appreciate your contribution to the research. Would this be okay with you?

Have you agreed to participate in the research?

Yes ☐ No ☐

Date----------

Signature ----------

11. ANNEX QUESTIONNAIRE

S.NO	Question	Response category	Skip rule
101	Age in year	----------	

102	What is your marital status	1) Married 2) Single 3) Widowed 4) Divorced 5) Other	
103	Ethnicity	1) Amhara 2) Gumuze 3) Agew 4) Shinasha 5) Others_____	
104	What is your religion?	1) Orthodox 2) Muslim 3) Protestant 4) Catholic 5) Others_____	
105	What is your educational status	1) Unable to read and write 2) Only read and write 3) Primary education (grade 1-8) 4) Secondary education (grade 9-10) 5) Preparatory education (grad 11-12) 6) Higher education	
106	What is your husband's educational status	1) Unable to read and write 2) Only read and write 3) Primary education (grade 1-8) 4) Secondary education (grade 9-10) 5) Preparatory education (grad 11-12) 6) Higher education	
107	What is your occupation	1) Housewife 2) Merchant 3) Private employee 4) Gov't employee 5) Farmer 6) Daily laborer 7) Others (Specify) _____	
108	What is your husband's occupation	1) Merchant 2) Farmer 3) student 4) govt employ 5) Daily laborer 6) if other specify	
109	Family size in number	---------	
110	What is your Monthly income in birr	----------	
111	Access to transportation	1 easy 2 difficult	

112	Which Mode of transport do you use to go to the nearest Health facility in case of emergency?	1. Walking by foot 2. Horse 3. Ambulance 4. others	
113	How long does it take you to travel to the nearest health facility by foot?	1. Less than 60 minutes 2. 60 minutes to 2 hour 3. 2 hour to 2 ½ hour 4. More than 3 hours	
114	What is the distance in kilometers from your home to health center?	Distance in km----------	
115	Residence	1. Rural 2. Urban	
201	For your last pregnancy did you have ANC follow up?	**1)** Yes 2) No	**If ans"2" go to Q 3**
202	How many times did you receive antenatal care	1) _____ 6) Don't know?	
203	How many pregnancies do you have experienced before?	_____pregnancies	**If ans -1-go to Q 6**
204	What were the pregnancy complications you were told about? (more than one answer is possible)	1. Vaginal bleeding 2. Vaginal flush of fluid 3. Severe headache, 4. Blurred vision, 5. Fever 6. Abdominal pain/pre- term contractions, 7. Decreased fetal movement, 8. Edema/ body swelling 9. Other, specify	
205	Did you experience any pregnancy related complications for your most recent pregnancy	1) Yes 2) No	
206	Where did you delivered your child?	1) health facility 1) at home 2) way to health facility 3) Other ----------	

301	Did you know that health facility had a maternity waiting home before?	1) yes 2) no 3 doesn't know	
302	Where did you get the information?	1) from health extension workers 2) from Health development leaders 3) from neighbors 4) from health center 5) if other ------specify	
303	Transport to and from MWH	1) Affordable 2) Not affordable	
304	Self Decision making to use MWH	1) Possible 2) Impossible	
305	Bringing own cooking utensils	1) Possible 2) Impossible	
306	Bringing an attendant for at least 2 weeks before delivery date	1) Possible 2) Impossible	
307	Children are taken care of by other family members / community	1) Possible 2) Impossible	
308	Have you get maternity leave before delivery	1) Possible 2) impossible	
309	Attendant being away from other work / obligations	1) Possible 2) Impossible	
310	Bringing a child to MWH	1) Possible 2) Impossible	
401	Did you ever use a Maternity Waiting Home during pregnancy and/or post-delivery?	1) YES 2) No	
402	For woman who did not only use a Maternity Waiting Home during pregnancy and/or post-delivery why you did not utilized? Probe circle all mentioned.	1 Distance 2 Lack Cultural appropriate care 3 lack of knowledge 4 didn't feel it was needed 5 lack of transportation 6 permission not granted 7 past favorable condition 8 perception of quality of services 9 perception of health worker attitudes 10 regardless of male midwife /nurse involvement 11 availability of a trained TBA 12 Favorable condition at home in previous 13 No care of child at home	

403	How many months pregnant were you when you first came to the Maternity Waiting Home?	_____ (number of months)	
404	How many days have you stayed in MWH?	**1)** 7 days and more **2)** Less than 7 days	
404	Who decided that you should seek care at a Maternity Waiting Home?	1) my self 2) husband 3) jointly 4) health worker 5) traditional birth attendant 6) other_____ (specify	
405	What were the reasons for seeking care at a Maternity Waiting Home? Probe: circle all mentioned	1) for a good pregnancy outcome 2) fear of complications 3) previous use of a maternity waiting home 4) referral from a health facility or a health worker 5) recommended by a family member or friend **6)** other----------	

Questions for qualitative (key informant and FGD) study

What are institutional related factors that hinder utilization of maternity waiting home?

- Lack Privacy during care
- Lack respectful care
- Lack of clean food and water
- Lack of Recreational materials TV/Radio in MWH
- Lack of comfortable blankets, bedmattress, ITN and other materials in MWH
- Lack of traditionalceremony after delivery in MWH
- Lack Extra space for the family to stay with you at MWH

What are women related barriers that hinder the utilization maternal waiting home

- Lack knowledge about MWH
- Lack of knowledge about benefit MWH
- Lack of decision making power

- Lack of child caring body at home
- Lack assistant in MWH

በባህርዳር ዩኒቨርሲቲ በህብረተሰብ ጤና ትምህርት ክፍል

በህብረተሰብና ስነ-ተዋልዶ ትምህርት ክፍል የተዘጋጀ የ2ተኛ ዲግሪይ የተማሪ ክብሩ ከበደየመመረቅያ ጽሁፍ በአማርኛ የተዘጋጀ መጠይቅ

የጽሁፉ ርእስ፤ በስድስት ወር ውስጥ በቡለን ወርዳ ከወለዱ እናቶች የእናቶች ማቆያ ቤት የተጠቀሙና ና ተግዳሬቶቹ በሚል በቡለን ወረዳ መተከል ዞን ቤኒሻንጉል ጉሙዝ ክልል በሚል

ጤና ይስጥልኝ ! ስሜ _____ ይባላል እኔ በእናቶች ማቆያ አጠቃቀምና ተግዳሮቶቹ በሚል በቡለን ወረዳ በሚጠናው የመመረቂያ ጹሁፍ ላይ መረጃ ስብሳቢ ነኝ .

እርሶን የጥናቱ ተሳታፊ እንዲሆኑ የተመረጡ ስለሆነ አንዳንድ መረጃዎችን በመስጠት እንደሚተባበሩ ሙሉ ተስፋ አለኝ ፤፤የሚሰጡን መረጃዎች ሙሉ በሙሉ ምስጢራዊነታቸው የተጠበቀ ይሆናል ፤፤ ምንም እርሶን የሚገልጽ ነገር እንደ ስምና አድራሻ አንጠቀምም ፤፤ የምንጠይቃቸው ቃለ-መጠይቆችም የእናቶችን የማቆያ ቤት አጠቃቀም ለማሻሻል ጉለህ ሚና ስለሚኖራቸው ብቻ ነው ፤፤ በዚህ ጥናት የእርሶ ተሳትፎ ከፍተኛ ሚና አለው እና ስለሚያበረከቱት አስተዋጸ እጅግ አደርጌ አመሰግናለሁ፤፤

በዚህ ጥናት ላይ ለመሳተፍ ፍቃደኛ ነዎት ?

አዎ ☐ ይደለሁም ☐

ቀን _____

ፊርማ_____

ተ.ቁ	መጠይቆች	የመልስ አማራጮች
	ክፍል1፡- ማህበራዊ እና ስነ ህዝባዊ ጥያቄዎችን በተመለከተ	
101	እድሜ	----------
102	የጋብቻ ሁኔታዎ ምንድን ነዉ?	1. ያገባች 2. ያላገባች 3. ባሉዋ የሞተባት 4. አግብታ የፈታች
103	ብሄርዎ ምን ነዉ?	1. አማራ 2. ጉሙዝ 3. አገው

		4. ሺናሻ
		5. ሌላ (ይገለፅ)------
104	የምን ሃይማኖት ተከታይ ነዎት?	1. ኦርቶዶክስ
		2. እስልምና
		3. ፕሮትስታንት
		4.ሌላ (ይገለፅ)----------
105	የትምህርት ደረጃዎ እስከ ምን ድረስ ነዉ?	1. ማንበብና መጻፍ አልችልም
		2. ማንበብና መጻፍ ብቻ እችላለሁ
		3. የመጀመሪያ ደረጃ ት/ት አጠናቅቂያለሁ
		4. የሁለተኛ ደረጃ ት/ት እና ከዚያ በላይ ተምሪያለሁ
		5. ከፍተና ትምህርት ደረጃ
106	የባለቤትሽ የትምህረት ደረጃ	1. ማንበብና መጻፍ አይችልም
		2. ማንበብና መጻፍ ብቻ ይችላለሁ
		3. የመጀመሪያ ደረጃ ት/ት አጠናቅቋዋ
		4. የሁለተኛ ደረጃ ት/ት እና ከዚያ በላይ
		5. ከፍተና ትምህርት ደረጃ
107	ስራዎ ምንድን ነዉ?	1. የቤት እመቤት
		2. ነጋደ
		3. ግል ስራ
		4. መንግስት ሰራተኛ
		5. ቀን ሰራተኛ
		6. ሌላ (ይገለፅ)-------
108	የባለ ቤቶዎ ስራ ምንድን ነዉ?	1. ነጋደ
		2. አርሶ አደር
		3. ተማሪ
		4. የመንግስት ሰራተኛ
		5. ቀን ሰራተኛ
		6. ሌላ (ይገለፅ)-------
109	የቤተሰብ ብዛት በቁጥር	----------
110	እንደ ቤተሰብበወር ምንያህል ገቢ ያገኛሉ?	---------- የኢትዮጵያ ብር
111	ትራንስፖርት ተደራሽነት	1. ተደራሽ ነው
		2. ተደራሽ አይደለም
112	የትኛውን የትራንስፖረት አይነት ነው የምትጠቀሙት	1. በእግር
		2. በቅሎ/አህያ

		3. በአንቡላንስ
113	እቤቶ ከጤና ተቋም በምን ያክል ይርቃል	1. ከ60 ደቂቃ በታች
		2. ከ60 ደቂቃ እስከ 2 ሳኣት
		3. ከ 2ሳኣት እስከ 2ሳኣት ተኩል
		4. ከ3 ሳኣት በላይ
114	የጤና ተቋሙ ከቤተሦ በምን ያክል ኪሎ ሜትር ይርቃል	ርቀት በኪሎሜትር----------
	ክፍል 2፤ ከእርግዝና እና ወሊድ ጋር የተያያዙ ጥያቀዎች	
201	በዚህ እርግዚናሦ የእርግዝና ክትትል አድርገዋል?	1 አዎ
		2 አይደለም
202	ምን ያክል ጊዜ ክትትል አደርገዋል	1. 1 ጊዜ 2. 2 ጊዜ 3. 3 ጊዜ 4. 4 ጊዜ 5. ከ 4 ጊዜ በላይ
		6) አላስታውስም?
203	ስንት ጊዜ ወልደዋል?	1. አንድ ጊዜ
		2. ከአንድ ጊዜ በላይ
204	በእርግዝና ወቅት ሊከሰቱ ከሚችሉ ችግሮች/አደገኛምልክቶች ውስጥ የሚያውቁቱን ሊነግሩኝ ይችላሉ?	1. ከማህጽን የደም መፍሰስ 2. ከማህጽን ፈሳሽ መፍሰስ 3. ከፍተኛ ራስ ምታት 4. የአይን ብዥታ 5. ትኩሳት 6. የሆድ ህመም 7. የጽንስ እንቅስቃሴ መቀነስ, 8. የሰውነት እብጠት 9. ሌላ ካለ ይገለጽ ----------
205	ከ እርግዝና ጋር የተያያዙ አደገናኛ ምልክቶች ታይቶወ ያውቃሉ ወይም አጋጥሞ ያውቃሉ	1. አዎ
		2. አይደለም
206	የአሁኑን ልጆ የት ነዎ የወለዱት	1. በጤና ተቀዋም
		2. ወደ ጤና ተቀዋም አየሄድኩን በመንገድ ላይ
		3. በቤት ውስጥ
		4. ሌላ ካለ ይገለፅ-------

207	ከጤና ተቋም ውጭ ለወለዱ እናቶች ብቻ ; ለምንድር ነው ልጂሽን ከጤና ተቋም ያልወለድሺ? ከአንድ በላይ መልስ ይቻላል			
		1. የ ጤና ተቋም ርቀት ስላለው		
		2. ባህላዊ ስርዓት ባለመኖሩ		
		3. ባለማወቅ		
		4. አስፈላጊነቱን አለማሰብ		
		5. የትራንስፖርት እጥረት		
		6. ፍቃድ ያለማግኘት		
		7. ገንዘብ ስለማይጠይቅ		
		8. የአገልግሎት ጥራት ስጋት		
		9. የጤና ባለሙያዎች አመለካከት ስጋት		
		10.ወንዶ ባለሙያዎች እንዳያዩኝ ስጋት		
		11.ልምድ አዋላጆች ስላሉ 12.ምቹ ሁኔታ እቢት ሰላል 13.ልጅ ሚይዝ ስለለ		
	ክፍል 3፣ከእናቶችጋር የተያያዙ ችግሮች			
301	የጤና ጣቢያው የእናቶች ማቆያ ቤት ያለው መሆኑን ታውቁ ነበር?	1. አዎ		አዎ ከሆነ ወደ ተራ ቁጥር 2
		2. አላወቅም		
302	መረጃውን ከየት አገኙት	1. ከጤናኤክስቴንሽንሰራተኞች		
		2. ከጤና ልማት ሰራዊት አባላት		
		3.ከጎሮቤቶች		
		4. ከጤናጣቢያው		
		5. ሌላ ካለም ይገለጽ		
303	ከቤት እስከ ጤና ጣቢያ ትራንስፖርት	ይገኛል	1	
		አይገኝም	2	
304	በምትቆይበት ጊዜ ለምግብ/ለቀለብ ያለው የገንዘብ ወጭ	አቅሜ ይፈቅድልኛል	1	
		አቅሜ አይፈቅድልኝም	2	
305	በምትቆይበት ጊዜ ለምግብ ማብሰያ የሚሆኑ የራስሽን እቃዎች ይዞ ማምጣት	የሚቻል	1	
		የማይቻል	2	
306	ለሁለት ሳምንትና ከዚያ በላይ ለሚያክል ጊዜ አብሮ በማረፊያ ቤቱ በመሆን ሊያስታምምሽ የሚችል ሰው ማግኘት	የሚቻል	1	
		የማይቻል	2	

307	አንች በማረፊ ቤቱ በምትቀይበት ጊዜ ቤትሽ ልጆችሽን የሚንከባከብ ቤተሰብወይም ዘመድ ማግኘት	የሚቻል	1	
		የማይቻል	2	
308	ለረጅም ጊዜ ከስራሽ መራቅ(ከቤት ውስጥ ስራ ውጭ)	የሚቻል	1	
		የማይቻል	2	
309	አስታማሚሽ ከስራው/ዋ ለረጅም ጊዜ መራቅ	የሚቻል	1	
		የማይቻል	2	
310	ልጆችሽን ከአንች ጋር ወደ ነፈሰጡር ማረፊያ ቤቱ ይዞ መምጣት	አስፈላጊ	1	
		አላስፈላጊ	2	
	ክፍል 4፤ የማቆያ ቤት አጠቃቀምን በተመለከተ			
401	በወሊድ ወቅትና ከወሊድ በሃላ የእናቶች ማቆያ ቤት ተጠቅመዋል ?	1. ተጠቅሜያለሁ		ካልተጠቀሙ ወደ ቁጥር 501 ይለፉ
		2. አልተጠቀምኩም		
402	በስንተኛ ሳምንትሽ ነው ወደ ማቆያ ቤት የገባሺ ?	_____(ሳምንቱን በቁጥር ያስቀምጡ)		
403	ምን ያክል ቀን በማቆያ ቆየሽ ?	1. 7 ቀንና ከዛ በላይ		
		2. 7 ቀንና ከዛ በታች		
404	የ እናቶች ማቆያ እንድትጠቀሚ የወሰነው ማን ነው ?			
		1. እኔ በራሴ		
		2. ባለቤቴ		
		3. በጋራ		
		4. የጤና ባለሙያዎች		
		5. ልምድ አዋላጆች		
		6. ሌላም ካለ ይገለጽ		
405	የእናቶች ማቆያ ቤት እንድትጠቀሚ ያደረገሽ ምክንያት ምን ነበር ?		1=አዎ 2=አደለም	
		1. ጤነኛ ልጅለመወለድ		
		2. ሊከሰት የሚችል አደጋ በመፍራት		
		3. ከዚህን በፊትም ስለ ምጠቀም		
		4. ከሌላ ተቋም ሪፍር ተደርጌ		
		5. በቤተሰቤ ግፊትና ፍቃድ		
		6. ሌላም ካለ ይገለጽ----------		
	ክፍል 5 ፣ ከተቋም ጋር የተያያዙ ችግሮች			

501	የተለየ አልጋ፣ ሻውር ፣ እና ሌሎች አገልግሎት	አለ	1	
		የለም	2	
502	የባለሙያ ክትትል	አለ	1	
		የለም	2	
503	አዝናኝ ነገሮች ቴሌቪጂን ፣ራዲን	አለ	1	
		የለም	2	
504	አልጋልብስ፣ ትራስ ፣ፍረናሽ	አለ	1	
		የለም	2	
505	የምግብ ማብሰያ ዕቃዎች	አለ	1	
		የለም	2	
506	በቂ የምግብ ማብሰያ ቦታ	አለ	1	
		የለም	2	
507	በቂ ምግብ ፣ቡና፣ውሃ	አለ	1	
		የለም	2	
508	ባህላዊ የገንፎ ስናስርዓት መኖር	አለ	1	
		የለም	2	
509	የተለየ መጸዳጃ ቤት ለአናቶች ማቆያ መኖር	አለ	1	
		የለም	2	
510	መብራት ለአናቶች ማቆያ	አለ	1	
		የለም	2	
511	በቂ ቤተሰብ ሚቆይበት ቦታ	አለ	1	
		የለም	2	

- የተለየ አልጋ፣ ሻወር፣ እናሌሎችአገልግሎት
- የባለሞያክትትል
- አዝናኝነገሮችቴሌቪጂን፣ ራዲን
- አልጋልብስ፣ ትራስ፣ ፍረናሽ
- የምግብማበሰያዕቃዎች
- በቂየ ምግብማበሰያቦታ
- በቂምግብ፣ ቡና፣ ወሃ
- ባህላዊየገንፎስናስርዓትመኖር
- የተለየ መጸዳጃቤትለአናቶችማቆያመኖር
- መበራትለአናቶችማቆያ
- በቂቤተሰብመቆይበትቦታ