



MAGNITUDE OF MATERNITY WAITING HOME UTILIZATION AND ASSOCIATED FACTORS AMONG MOTHERS WHO GAVE BIRTH IN 12 MONTH BEFORE SURVEY IN DANGUR DISTRICT, METEKEL ZONE, BENISHANGUL GUMUZ REGION, NORTH WEST ETHIOPIA 2022.

BY

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## **ABSTRACT**

**Background:** About 80% of people in developing countries live in rural areas, where poor access to maternity services accounts for the majority of maternal and prenatal deaths. Utilization of maternity waiting homes, which are residential facilities where women who live remotely stay and wait before giving birth at a hospital or health centre, is among the strategies to increase skilled care utilization at birth. The maternity waiting home is a new initiative in the study area, and there is no research done in the study area and region to assess the magnitude of utilization of maternity waiting homes and their associated factors.

**Objectives;** To assess the magnitude of maternity waiting home utilization and associated factors among mothers who gave birth in 12 months before the survey in Dangur district, metekel zone, Benishangul Gumuze region, North West Ethiopia 2022.

**Methods:** community based cross-sectional study design using a structured interviewer-administered questionnaire was conducted from June 05–15/2022 among 354 mothers who gave birth in 12 months before the survey by using a simple random sampling method. Data was coded, edited, and cleaned, then entered into Epi Data version 3.1 and exported to SPSS version 25 for analysis. A descriptive, bivariate, and multivariable logistic regression analysis was done. At the end, a variable with a p-value of 0.05 by multivariate analysis was reported as significant.

**Result ;** Total of 354 study participants were involved, with a response rate of 98%. In this study, utilization of maternity waiting home was 36.4 % (95%CI: 31.4, 41.8). Knowledge of the presence of waiting home AOR = 9.58 (95% CI: 4.18-21.9), affordability of transportation cost AOR = 1.97 (95% CI: 2.05-3.71), Antenatal care 4 follow up AOR = 2.7 (95% CI: 2.47-15), access to transportation AOR = 1.98 (95% CI: 2.00-3.8), and travel time AOR = 2.41 (95% CI: 2.21-4.98) were factors significantly associated.

### **Conclusion**

The study finding shows maternity waiting home utilization is low. The study implied knowing the presence of maternity waiting home, transportation cost, ANC 4 follow up, and access to transportation and traveling time were significantly associated with maternity home utilization.

**Key Words;** maternity waiting home, utilization, delivered mothers, Dangure District.

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## List of abbreviations and acronyms

<b>ANC</b>	Ante Natal Care
<b>AOR</b>	Adjusted Odds Ratio
<b>EDHS</b>	Ethiopian Demographic Health Survey
<b>EFY</b>	Ethiopian Fiscal Year
<b>EMDHS</b>	Ethiopian Mini Demographic Health Survey
<b>EmONC</b>	Emergency Obstetrics' and New Born Care
<b>ETB</b>	Ethiopian Birr
<b>FP</b>	Family Planning
<b>G.C</b>	Gregorian calendar
<b>HEP</b>	Health Extension Package
<b>HEW</b>	Health Extension Worker
<b>MMR</b>	Maternal Mortality Ratio
<b>MWH</b>	Maternity Waiting Home
<b>OR</b>	Odds Ratio
<b>PNC</b>	Post Natal Care
<b>SNNPR</b>	Southern Nation's Nationalities and Peoples Region
<b>SPSS</b>	stastical package for social since
<b>UNFPA</b>	United Nations Population Found Agency
<b>WHO</b>	World Health Organization

# CHAPTER ONE

## INTRODUCTION

### 1.1. Background;

Easy access to obstetric care is a challenging issue in the 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 (1). Maternity waiting homes are residential facilities where women who live remotely can wait before giving birth at health facilities. It provides a setting for women that can be accommodated during the final weeks of their pregnancy near a hospital or health center with essential obstetric care. 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).

The maternity waiting home is endorsed by the World Health Organization as one of the components of a comprehensive package to reduce maternal morbidity and mortality (2). So, the aim of implementing a MWH strategy is to advance access to skilled birth attendance and emergency obstetric care, which results in a reduction in maternal and prenatal mortality, particularly for women in rural and remote areas(3).

In the 2015-2020 Health Sector Transformation Plan of Ethiopia, MWHs are included as part of community ownership projects. Thus, with the growing interest, the Ethiopian ministry of health designed a strategy that enhances MWH and integrated MWHs into the health sector transformation plan to improve maternal and child health in Ethiopia. However, the uptake of maternity waiting homes in Ethiopia is not in line with its expected (4). Making motherhood safer is a main concern for the Ethiopian government and diverse efforts, such as establishing and scaling-up of maternity waiting homes (MWHs) (5), which were initially concentrated at the hospital level but have more recently been implemented at lower-level facilities.

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. Attat Hospital in SNNPR is the former to start the initiative of pregnant women waiting area in 1985(2). But have more recently been

implemented at lower-level health centre which is one of the tested and proven strategies to reduce maternal mortality, which has been in existence for more than decades(3).

Direct causes of maternal death were considered to be more likely to be promptly diagnosed and treated due to the monitoring of pregnant women in a MWH(8). In Ethiopia, studies from different settings have examined limited use of mothers' 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 (9, 10). Most of the studies focus on the intention of mothers to use waiting homes for their recent deliveries, which may not show the exact status of maternity waiting home utilization and factors affecting it. However, little is known about the utilization of maternity waiting homes in the actual setting of rural mothers in the study area and region. So the study helps the health system to improve MWH services and factors that diminish the uptake of MWHs, with the ultimate aim of achieving universal maternal health coverage.

## 1.2. Statement of the problem

In low-income countries, one woman in 41 dies from maternal causes(4) and one of the major contributors of these death is the distance and consequent delay in treatment of childbirth complications. WHO recommends skilled care at every birth, which includes access to facilities with the capacity for emergency obstetric care(5). In sub-sharan Africa majority of birth are not attended by skilled health professionals in health facility as result in 2017 there were about 196,000 maternal death in the region which accounts 66% of the world maternal death, with 55% occurring alone in Ethiopia(6). 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(7).

As the report of MEDHS 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% MEDHS 2019(8). Maternity waiting home plays an imperative part in decreasing maternal and prenatal mortality by increasing institutional delivery(9) and have coordinated in minimizing maternal mortality. At first the scale-up of maternity waiting homes (MWHs) which were concentrated at the hospital level(3) but have more recently been implemented at lower-level health facilities.

MWHs provide an opportunity for pregnant women who experience geographical barriers to be near a health facility a few weeks before birth(2). When access to care is difficult, women with high risk pregnancies should be admitted to a MWH at 36 weeks of pregnancy(10). In these homes additional emphasis is put on education and counseling regarding pregnancy, delivery and care of the newborn infant and family. Recently the concept of maternity waiting home utilization has been enlarged to include high risk women including those expecting their first delivery, women with many previous births, very young women, older women, and those identified as having problems such as high blood pressure during pregnancy(11).

Although Ethiopia is scaling up maternity Waiting Homes (MWHs) to reduce maternal and prenatal mortality, women's use of MWHs varies markedly between facilities. Utilization levels of MWHs globally have generally been reported to be low with their conditions often regarded as unsatisfactory(12). Although majority of health centers have maternity waiting homes according to 2021 Dangur District health office reports, institutional delivery service was 44% which is low, and there is no study conducted on assessment of magnitude of MWH utilization and associated factors affecting its utilization in the study area and within the region. Hence the aims of this study were to determine the status of MWHs utilization and identify associated factors.

### **1.3. Significance of the study**

The finding would form a body of knowledge, useful for effective utilization of maternity waiting home and have the potential to guide a plan for MWHs in Metekel zonal districts, zonal health department, Benishangul gumuze regional health and ministry of health in designing and implementing interventions that would increase MWH utilization. Additionally the result of the study would be helpful to Benishangul gumuze regional health bureau in developing or reviewing guidelines regarding the utilization of MWH and initiates governmental and none governmental partners to support the initiatives. Moreover it would help Ministry of health in developing or reviewing policy related to MWH. Further it would be used as a reference for researchers.

## CHAPTER TWO

### LITRUTURE REVIWE

#### 2. THE STATUS OF MATERNITY WAITING HOME UTILIZATION

Maternity waiting home utilizations are greatly varies among countries and region to region and some MWH are well utilized and others are not utilized and remain empty. Systematic review and meta-analysis in Africa revealed that utilizing MWHs have a significant effect in reducing post natal mortality by 82.5%(13). A cross sectional study done in 2017 in rural Zambia found that 70.6% mothers did not stay in a MWH before delivery(14). a cross-sectional survey study in Zambia indicated only 31.5% using a MWH for their most recent pregnancy(15). A study conducted in 2018 in Kenya shows that 61% mothers utilized their waiting home.

A cross-sectional study done in 2016 in Ethiopia found that, generally -79% health centers in SNNPR, 73% health centers in Amhara, 67% health centers in Oromia – have waiting homes in their facilities during survey time (16). Community based cross sectional studies in Arbaminch zuria district in 2019 shows that Only 68 (8.43%) of the recently delivered mothers used their waiting home(17) .

Study conducted in Ethiopia Oromia region Jimma district in 2019 shows that only 7% of women reported MWH use(18) and 15.5% in Eastern Gurage district (19) which implies that institutional delivery is low. community based cross sectional study conducted in Oromia Arsi zone in degilo and tiju district in 2021 shows that only 23.6% utilized(20). Finding of the study conducted in the districts of Sidama Zone in 2019 showed that 67.25% utilized the maternity waiting home(21) and community based cross-sectional study done in Butajira on recently delivered and pregnant women showed that 55.1% of women were intended to use MWH(22).

## **2.1. Factors associated with utilization of maternity waiting home**

### **2.1.1. Sociodemographic factor**

Study conducted in Nepal found that low educational status of women tended to impact negatively on maternity service uptake(23). Study done on determinants of utilization of maternal health care services among pregnant women in Ghana kowhai south district showed age, education, occupation, partner's occupation, means of transport, income level was significantly associated with utilization of maternity waiting homes (24). A study done in Zambia on women's of reproductive age to identify psychosocial and environmental factors contributing to low utilization of maternal healthcare services revealed that age, the quality of services influenced their decisions to use maternal health care services(25).

Finding from a baseline cross-sectional household survey among districts in Zambia Women who lived distance from a health care facility were more likely to use MWH(26) A research done in rural Zambia on women of reproductive age to assess women's experiences and beliefs concerning utilization of MWHs found that gender inequalities prevent them from utilizing it(27). According to study done in Mettu district age, occupation, educational status, were factor associated with use of maternity waiting home (28). across-sectional study conducted in Jimma to assess the utilization of maternity waiting home found 38.7% respondents had past experiences on MWH(29).

A multilevel cross-sectional study result in Jimma Zone Oromia region shows that ; a women with companions , Housewives, travel time>30 minutes and wealthier households were associated with maternity waiting home use; but education and Site of birth were not significantly associated with MWH use(18) .community based cross sectional study on Digilu and Tiju district shows that Traveling time less than and equals to 60 minutes from a nearby health facility were independently associated with utilizing the maternity waiting home(20). Study done at SNNPR Ethiopia showed that factors associated with intended MWH use were a woman's education (secondary school or higher vs no schooling, her husband's education (secondary school or higher vs no schooling) ; and women who could not afford transport(22).



A community based study conducted in districts of Sidama zone in 2019 shows that maternity waiting utilization was associated with protestant religion, having supposed who can read and write and negatively associated with occupation of daily laborer of mother, age of 20-30 year and monthly income under the poverty level.

### **2.1.2 Obstetric and gynecological related factors**

Study done in Ghana kowhai south district shows that marital status and parity was significantly associated with maternity waiting home utilization(24). Findings from a baseline cross-sectional household survey among districts in Zambia Women who were married had higher odds of utilizing a MWH when compared to not married women and Women who lived distance from a health care facility were more likely to use MWH(26). A study done in Zambia revealed that, having many children influenced their decisions to use maternity waiting home (25). Study conducted at rural community in north central Liberia in 2013 shows that Food insecurity while staying at a MWH was identified as potential factors by participant women's.

A cross-sectional survey done in Zambia 2019 shows that use of a MWH was associated with increased odds of attending four or more antenatal care visits (15). A study conducted on Digilu and Tiju district in 2021 on recently delivered women who did not have ANC follow-up was 40% less likely to utilize the MWH as compared to a woman who had ANC follow-up during her last pregnancy. According to study done in Mettu district reason to use MWH were , place of birth, number of days stayed in MWH, giving birth before, past experience of MWH, number of ANC visit, were factor associated with use of pregnant women waiting home (28) . Study done at SNNPR Ethiopia showed that complications in previous childbirths where factors associated with MWH use.

### **2.1.3 Maternal related factors**

Study done in 2013 G.C in indigenous regions of Guatemala indicates lack of sustainable budget and knowledge about the existence of homes were the most important problems identified(30). A research conducted in Zambia showed that most of the women mentioned (70%) the final decision whether the woman should use the MWH or not was made by the husband, Women's mother and mothers-in law (31). A cross-sectional study done in Kenya revealed that 95% of women's need their husband's permission to use their maternity waiting home (32). Finding from across-sectional study done in Ethiopia revealed that the commonest factors for not using MWH were husband/family did not allow admission (53%). Women stayed at the MWHs reported that decision to come to the MWHs was made by a joint discussion with family/husband (46%)(33).

Study done in 2018 on 340 women of reproductive age to test the association between the presence of MWHs and personal and environmental factors revealed that social norm (regarding male nurse/midwife involvement) and personal norm have associations with utilization (14). A survey finding in Ethiopia showed that social support were the major challenges that women faced during maternity waiting home utilization. barriers to utilization of maternity waiting home includes, mother being away from the household ,attendant being away from work; and having children in the household cared by the community during a woman's absence(22) were barriers to utilization. Community based cross sectional study on Digilu and Tiju district shows that, delivering more than three children were independently associated with utilizing the maternity waiting home(20).

### **2.1.4 Facility related factors**

Study finding in Zambia district shows Over half of mothers using a MWH prior to delivery reported problems at the MWH were related to bedroom, management oversight , safety and quality of service (26). Ethiopian EmONC Assessment 2016 final report indicated that 73% 57% and 75% of facilities with MWHs had electricity, water and a latrine respectively(34).perceived high quality of care at the health facility was positive barrier(19). A survey finding in Ethiopia on MWH showed that disparity in food supplies among differing levels of family were the major challenges that women faced in MWH. UNFPA in 2018 reported food during maternity waiting home utilization and transportation to take mothers back home after delivery were major challenges at maternity waiting homes(35).

According to study done at Attat hospital Ethiopia from March 2014 to January 2018 absence of cooking utensils at the MWH are factors related with maternal waiting home utilization. A multilevel cross-sectional study done in 2019 at Jimma Zone Oromia region Ethiopia shows the women's received meal service , Latrine, bath, clean water, electric city and midwife checks respectively(18). Study done in 2013 in indigenous regions of Guatemala indicates inadequate provision of culturally appropriate care were the most important problems identified(30).

Although Ethiopia is scaling up maternity Waiting Homes (MWHs) to reduce maternal and prenatal mortality, women's use of MWHs varies markedly between facilities and there was a significant variation and inconsistency in the magnitude of maternity-waiting home use among women across the country. Similarly, the factors associated with the utilization of MWHs were different from study to study. As a result, it is critical to have an evidence on the magnitude and associated factors of MWH use among women in the study district and to assist the relevant bodies in identifying existing gaps and proposing additional strategies to increase the availability, accessibility and implementing effective interventions to increase maternity-waiting home utilization and tackle the associated factors in the district and the region.

## 2.2: Conceptual framework

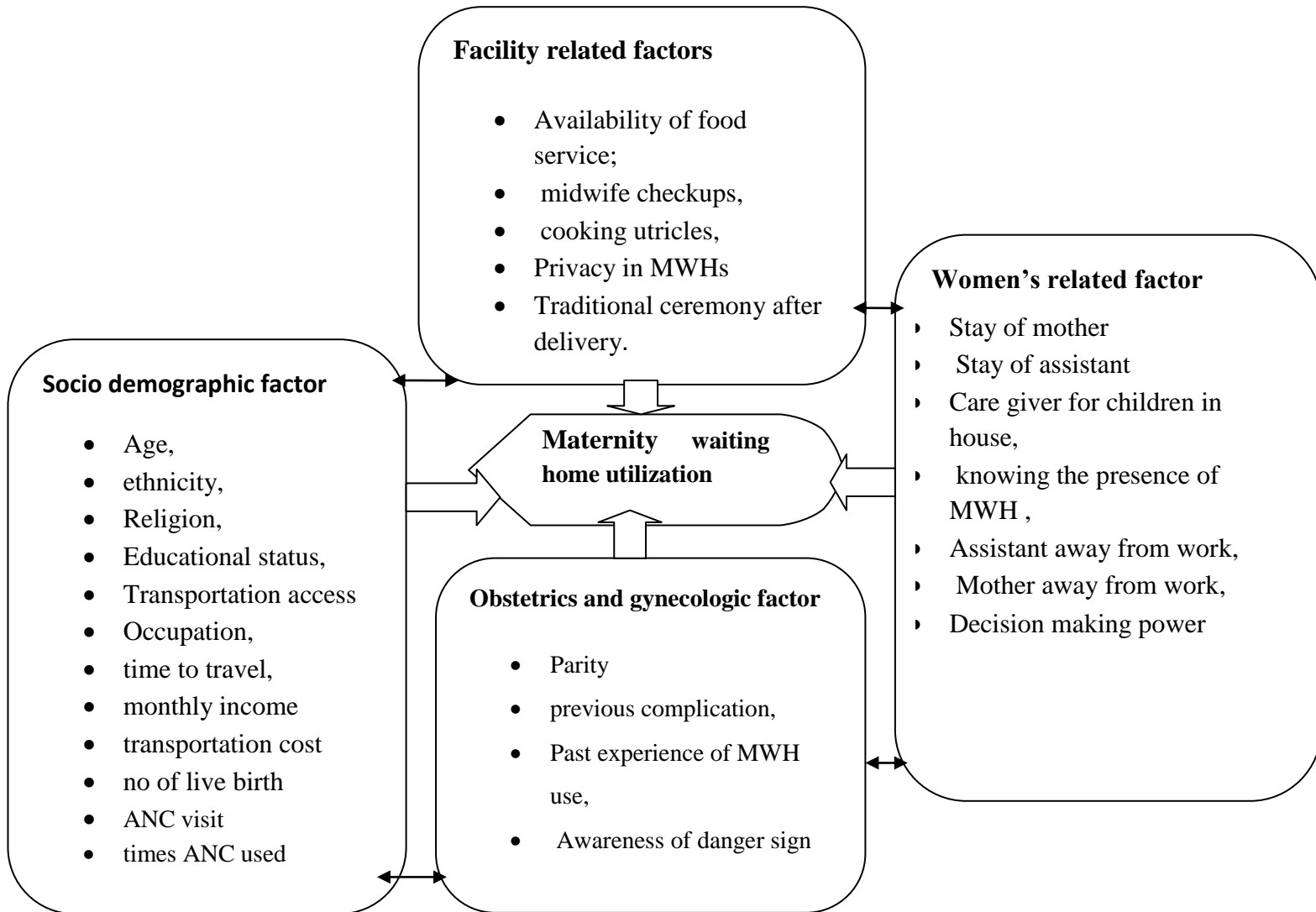


Figure 1 . conceptual framework for maternity waiting home utilization of mothers who gave birth in 12 month before survey in Dangure Districts of rural kebeles of Metekel Zone Benishangul Gumuze north west Ethiopia 2022.

Sources adapted from reviewing different literatures (20,21,36).

## **CHAPTER THREE**

### **OBJECTIVES**

#### **3.1 GENERAL OBJECTIVE**

- ❖ To assess the magnitude of maternity waiting home Utilization and associated factors among women who gave birth in 12 month before the survey in Dangur district rural kebeles Metekel zone Benishangul gumuz region North West Ethiopia.

#### **3.2 SPECIFIC OBJECTIVESs**

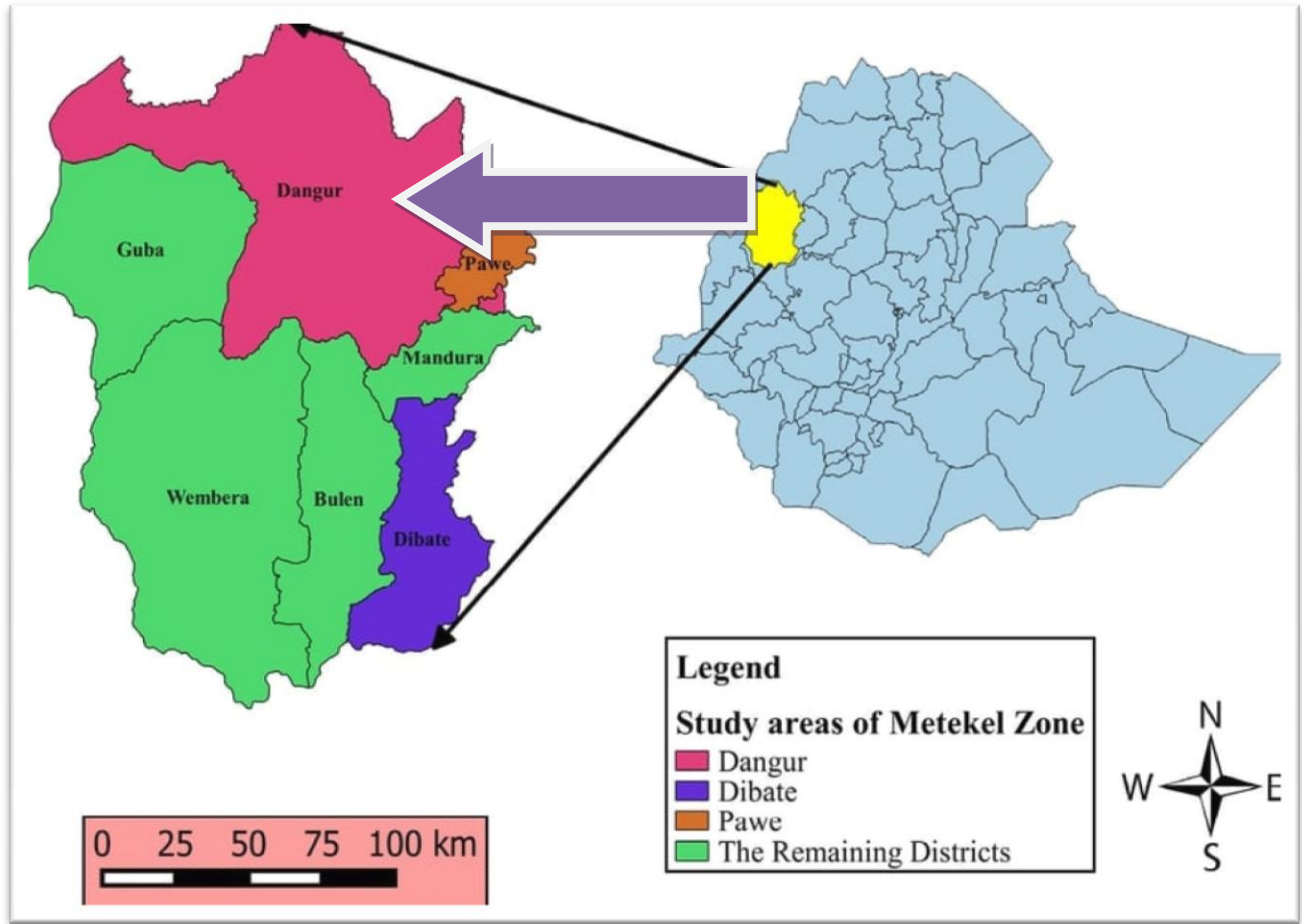
- ✓ To determine the magnitude of maternity waiting home utilization among women who gave birth in 12 month before the survey in Dangur district Metekel zone benishangul gumuz region.
- ✓ To identify factors associated with maternity waiting home utilization among women who gave birth in 12 month before the survey in Dangur district Metekel zone Benishangul gumuz region North West Ethiopia.

## CHAPTER FOUR

### METHOD AND MATERIALS

#### 4.1 study area and period

The study was conducted in Dangur district rural kebeles, Metekel zone Benishangul Gumuz Region North West Ethiopia from June 05-15/ 2022. Dangur district is one of the 7 districts found in Metekel zone of Benishangul Gumuz regional state. It is located at North western part of Ethiopia at about 572 Km from Addis Ababa. Dangur is bordered by Amhara region in the northeast, by Pawi district in the east, by Mandura in the south east, by Bullen in the south, by Wombera in the southwest, and by Guba in the west. The four largest ethnic groups reported in Dangur were Agew (40.5%), Gumuz (34%), Amhara (16.5%), and Shinasha (3.3%). The district has 30 kebeles (the lower administrative unit) 28 rural and 2 urban with a total population of 74559 from which male is 36907 and female 37652. The number of delivered mothers in one year reported from Dangure health office up to may 30/2014 E.C in the district is 2542. The district has three governmental health centers twenty six health posts serving the rural community with total fifty one(51) health extension workers, one hundred four(104) health professionals all type and seventy one (71) supportive staffs. The district has currently three maternity waiting homes which provide services for 30 kebeles (lower administrative units).



**Figure 2. Map of the study area**

Source of map from Google data

## **4.2 Study design**

Community based quantitative cross sectional study design was conducted.

## **4.3 Population**

### **4.4 Source population**

the source population for this study were all women who gave birth in 12 month before the survey in rural kebeles of Dangur district Metekel zone, benishangul gumuz region north west Ethiopia .

### **4.5 Study population**

The study population were all women who gave birth in the last one year before the survey and who were selected and included in the study during the sampling procedure.

### **4.6 Inclusion and exclusion criteria**

#### **4.6.1 Inclusion criteria**

Woman who gave birth within 12 months and live more than 6 months (formal residents) in rural kebeles (lower administrative units) of Dangur district.

#### **4.6.2 Exclusion criteria**

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

### **4.7 Sample size determination and technique**

#### **4.7.1 Sample size determination**

1. by using single population proportion formula sample size was calculated for the first objective based on the assumption of proportion of maternal waiting home utilization study from Gimbo districts in keffa zone which is 42.5% (36) with 95% confidence interval 5% margin of error and 10% none response rate. Therefore the calculated sample size could be;

Where; n= the desirable calculated sample size

$$Z (\alpha/2) = 1.96 (95\%)$$

$$P = 42.5\%$$

d = degree of accuracy desired (5%)



So it will be calculated by using the formula

$$n_i = \left( \frac{z_{\alpha/2}^2 (p(1-p))}{d^2} \right)$$

$$n = \frac{(1.96^2) * 0.42(1-0.42)}{(0.05^2)} \quad n = 374$$

Since the total number of mothers who give birth within one year in the study rural kebeles of study district were less than 10,000 which is N= 2542. I used population correction formula

$$n_f = \frac{n_i}{\left( 1 + \frac{n_i}{N} \right)}$$

$$n_f = \frac{374}{1 + 374/2542} = 326$$

By adding 10% none response rate the final sample size was 359.

2. By using Epi Info version 7.2.5.0 software sample size was determined for the second objective which is factors associated with maternity waiting home utilization by considering the following assumptions; 95% confidence level; 80% power; 1:1 ratio, by adding 10% non response rate and proportion of exposed and unexposed as illustrated in table below. However the sample size calculated for the second objective is lower than the first objective therefore 359 samples was used as the final survey.

Table 1: sample size calculation for the second objective.

Variables	Z $\alpha$ /2	Power	Unexposed	Exposed	AOR	Ratio	sample size	10%	Total	Reference
Decision making level	95	80%	12.1 %	48.6%	3.48	1:1	304	30	334	(37)
Husbands' approval to MWH	95	80%	66.8%	58%	0.17	1:1	106	11	117	(36)
History of complication	95	80%	64.8%	63.4%	3.9	1:1	240	24	264	(21)

### 4.7.2 Sampling technique

The district has 30 kebeles (lower administrative units); by using simple random sampling methods nine rural kebeles (lower administrative units) were selected. From district health office reported numbers of mothers delivered within one year from selected nine kebeles (lower administrative units) were 950. The sample size were proportionally allocated to each kebeles (lower administrative units) based on the number of delivery within one year which is

$$ni = \frac{n}{N} \times Nj$$

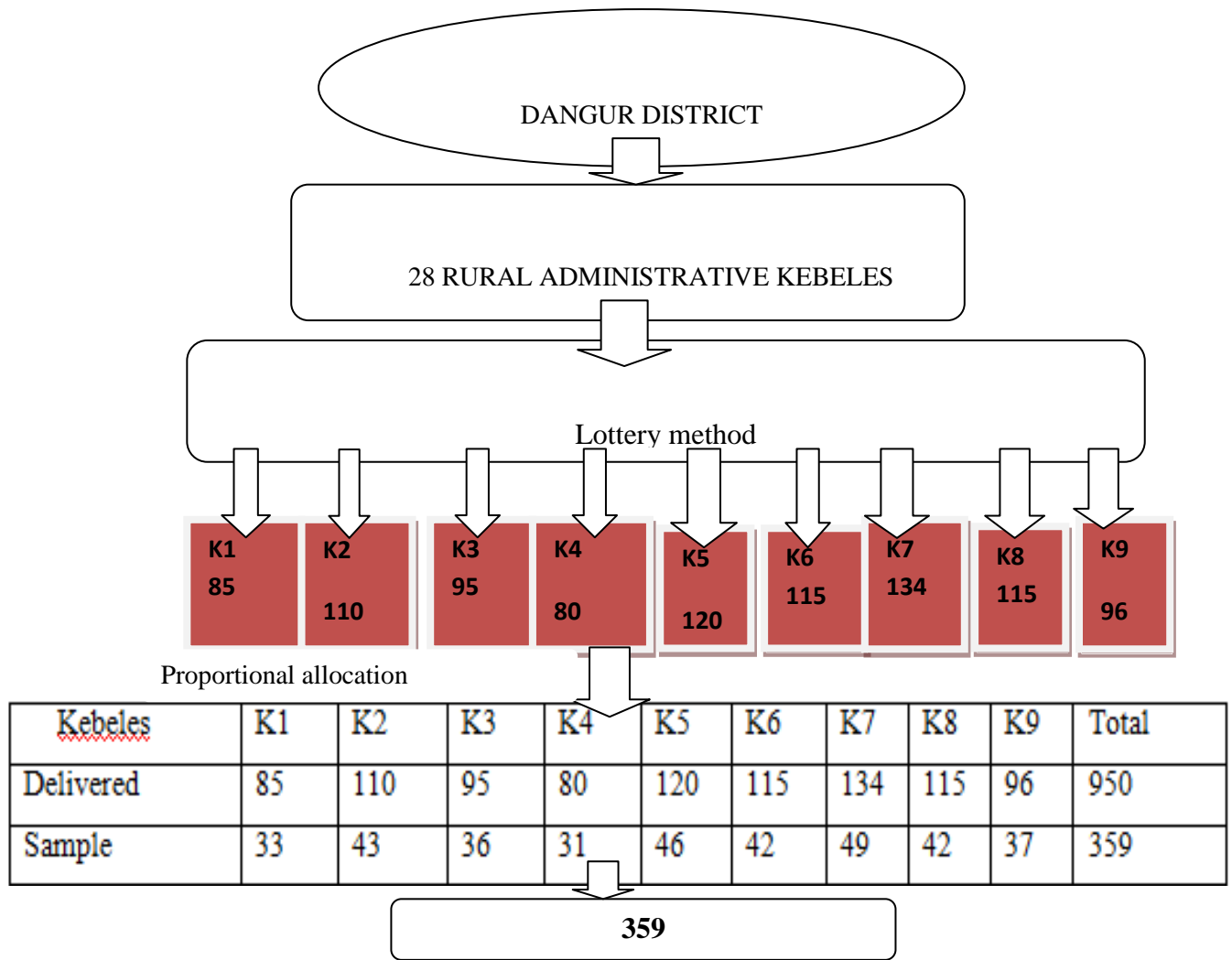
Where ni =sample size for selected kebeles (lower administrative units)

n=total no of delivery in each kebeles

Nj = total sample size

N = total number of mothers who gave birth in selected nine kebeles in one year

Finally the mothers are selected based on the number of delivery registered from each health posts and by having their list proportional allocation is done to each kebeles. After allocation has done each allocated mothers list has been generated by computer and selected by simple random sampling method. Based on their name list with in each kebeles and by having the list of mothers data collectors were collected the data through collaboration with health extension workers.



**Key;** (the randomly selected nine rural kebeles (lower administrative units) are K1 Dangure Mikale K2 Dawit K3 Sanja K4 Chamche k5 Java K6 Borenja k7 Ankasha gebreale k8 viser k9 kitili Azarti

Figure 3. Sampling methods in maternity waiting home utilization and associated factor in dangure district of rural kebeles Metekel Zone Benishangul Gumuze Region North West Ethiopia.

## **4.8 Data collection procedure**

Interviewer based Structured questionnaire were used consists of Sociodemographic characteristics, obstetric, maternal and facility related factors to measurement of MWH utilization. One days training were 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. Data were collected through face-to-face interview by trained data collectors who can read and write both Amharic and English with pre-tested structured questionnaire, which would be adapted by reviewing different literatures(1,22,29)

## **4.9 study variables**

### **Dependant variable**

Utilization of maternity waiting Home.

### **Independent variables:-**

**Socio-demographic variables:** Age, ethnicity, Religion, Educational status, Transportation access, Occupation, ANC visit, no of live birth, times ANC visit ,time to travel, monthly income, transportation cost.

**Obstetric and gynecological factors;** Parity, previous complication, past experience of MWH use, Awareness of danger sign.

**Maternal related factor;** Stay of mother, Stay of assistant in the MWH, Care giver for children in house, knowing the presence of MWH, Assistant away from work, Mother away from work, Decision making power.

**Facility related factor:** Availability of food service; midwife checkups, cooking utricles, Privacy in MWHs & labor ward; Availability of traditional ceremony after delivery.

#### **4.10. Operational Definitions**

**Maternity waiting home:** Residential facilities which were located near a well- established health facility, where pregnant women stay awaiting their delivery in the adjacent health facility.

**Utilization:** - mothers who were admitted and waited in MWH service before starting of labor or during PNC.

**Parity;** which was the number of times a women had given birth, including intrauterine deaths and stillbirths.

**Distance:** - Distance of government health institution explained time taken on walk on foot from home. It would be fair if it is greater than one hour traveling time on foot for this study.

**Woman's decision-making power:** women who generally made decisions independently or jointly with their husbands were considered to have decision-making power.

**Access to transportation; having** public transport services access from home to health facility.

#### **4.11. Data Analysis Procedure**

After data collection, filled questionnaires were coded. The data was entered using Epi data version 3.1 statistical software and analyzed using SPSS version 25. Data cleaning were performed to check for frequencies, accuracy, and consistencies and missed values and variables. Incomplete and inconsistent data would be excluded from the analysis. The descriptive analysis such as proportions, percentages, means, and measures of dispersion, were used to describe the data. Variables significant at P value of less than 0.25 in bivariate logistic regression were entered in to multivariate logistic regression analysis. Adjusted odd ratio, 95% CI and p value was used to determine the strength of association and statically significance. Logistic regression assumption was tested and the model goodness of fit was checked by using Hosmer-Lemishow goodness of fit test were 0.35 and multi co-linearity was tested by using VIF which is 6. Finally the data was presented in text, tables, and figures.

#### **4.12. 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 were Diploma in nurse and midwifery who were fluent in local language Amharic were recruited for the actual data collection and two supervisors having BSc degree in public health were 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% (25 mothers) of the final sample by principal investigator. The purpose of the pre-testing were to ensure that whether respondents are able to understand the questions or not and to check the wording, logic and skip patterns of the questions. After pre-testing, amendments were made accordingly. After analyzing data from the pre-test, a question which was not clear were rephrased and corrected. The supervisor & the principal investigator were made frequent checks on the data collection process to ensure the completeness & consistency of the gathered information and errors found during the process was corrected.

#### **4.13. Ethical considerations**

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

#### **4.14. Dissemination of the work**

Based on the approval of this thesis by examiners the finding of the study will be shared with appropriate organizations and stakeholders. The dissemination plan for the research results includes: a presentation at Jimma University; submission of the report paper to the Dangur district health office; submission of the report paper to the Dangure district administrative body, zonal health department, and regional health biro of the Benishangul gumuze region

## CHAPTER FIVE

### 5. RESULTS

#### 5.1.1 Socio demographic characteristics of study participants.

A total of 354 mothers were interviewed from nine rural kebeles with response rate of 98%. The mean age of the respondent was 31.21 years with SD of ( $\pm 5.69$ ). 112 (32%) of respondents were on the age group between 35 - 49 years. 108 (50.8%) of the respondents are orthodox religion followers. 296 (83.6%) were married. 140 (40%) were un-able to read and write.

**Table 2: shows socio demographic characteristics of mothers**

Variable	Characteristics	Frequency	Percent
Marital status	Married	283	79.9
	Single	21	5.9
	Widowed	12	3.4
	Divorced	38	10.7
Religion	Orthodox	180	50.8
	Muslim	93	26.3
	Protestant	76	21.5
	Others	5	1.4
Ethnicity	Amhara	98	27.7
	Gumuz	101	28.5
	Agew	72	20.3
	Shinasha	66	18.6
	Others	17	4.8
Educational status	unable to read and write	140	39.5
	able to read and write	164	46.3
	primary education	35	9.9
	secondary education	12	3.4
	higher education	3	0.8
Occupational status	Housewife	243	68.6
	Merchant	39	11.0
	Private business	34	9.6
	Government	28	7.9
	Daily laborer	10	2.8



## 5.1. 2. Obstetrical and gynecological factors

One hundred ninety (54%) mothers reported pregnancy related complications. One hundred eighty two women (51.4%) were delivered in health institutions. Two hundred forty four respondents (68.9%) of mothers had knowledge about the presence of maternity waiting home in the cluster health institution and one hundred ninety seven respondents (55.6%) get the information from health extension workers. Three hundred twenty three (91.2%) of the respondents had at least one ANC contact. One hundred fifty six (44.1%) of the respondents have ANC four follow up.

Table 3: obstetrical and gynecological related characteristics of mothers who gave birth in 12 month before survey in Dangure District Metekel zone Benishangul Gumuze region North west Ethiopia (n=354).

Variable	Characteristics	Frequency	Percent
ANC follow up	Yes	323	91.2
	No	31	8.8
Number of ANC follow up	One time	46	13
	Two times	43	12.1
	Three times	90	25.4
	Four times	156	44.1
	More than four times	19	5.4
Number of pregnancy	Primigravida	76	21.5
	Multigravida	278	78.5
current place of delivery	In health institution	182	51.4
	On the way	20	5.6
	At home	152	42.9
Knowledge about maternity waiting room	Yes	244	68.9
	No	110	31.1
Source of information	Health extension workers	197	55.6
	HDA	32	9
	Neighbors	15	4.2
	Health centers	10	2.8
	Others	100	28.2
Any pregnancy related complication	Yes	244	68.9
	No	110	31.1

### 5.1. 3 Facility related factors

Two hundred ninety three (83%) woman responds that bringing their own cooking materials is impossible during their stay in waiting room. forty nine (14%) mothers reported that there is no privacy in the maternity waiting home during their stay. Sixty (16.9%) of the maternity waiting utilizes had reported that there is no recreational materials like, TV and radio in the waiting room. one hundred mothers (78%) responds the availability of food ,water , coffee on maternity waiting room during their stay and eighty four mothers (65%) reported that there is no extra space for the family to stay with them.

Table 4: Facility related factors among study participants in maternity waiting home utilization and associated factor among women who gave birth with in 12 month before survey in Dangure District Metekel zone Benishangul Gumuze Region North West Ethiopia. (n=129).

Variable	Characteristics	Frequency	Percent
Privacy in waiting room	Available	80	62
	Not available	49	38
Bringing their cooking materials	Possible	61	17
	Impossible	293	83
Availability of midwife checks	Available	105	81
	Not available	24	19
Availability of recreational materials TV, radio	Available	69	53
	Not available	60	47
Extra space for the family to stay with mother	Available	47	35
	Not available	84	65
Availability of food, water, electric city ,coffee	Available	100	78
	Not available	29	22
Availability of traditional ceremony	Available	97	75
	Not available	32	25

### 5.1. 4. Maternal related factors

In this study two hundred eighty (80%) women's reported that being away from work is impossible. one hundred sixty two(45.8%) of mothers reported that bringing children to maternity waiting home is impossible. Two hundred eighteen (79.1%) women's reported that taking care of children's by other family member is difficult this makes women's not to utilize and stay at maternity waiting rooms and two hundred eighty four (80.2%) women reported that being away from her work is also impossible to utilize it.

Table 5: Shows maternal related factors on maternity waiting home utilization in mothers who gave birth with in 12 month before survey in Dangur district Metekel zone benishangul gumuze region.

Variable	Characteristics	Frequency	Percent
Bringing children to maternity waiting room	Possible	192	54.2
	Impossible	162	45.8
Taking care of children by other family members	Possible	74	21
	Impossible	280	79
Mother Being away from work	Possible	70	20
	Impossible	284	80
Attendant being away from work	Possible	76	21
	Impossible	278	79
Who decided you to use MWH(n=129)	By my self	12	9
	My husband	22	17
	Jointly together	40	31
	By health workers	55	43
Know the presence of MWH	Yes	243	68.6
	No	111	31.4
Source of information	health extension workers	201	56.8
	HDA	32	9.0
	Neighbors	11	3.1
	health center	10	2.8
	Others	100	28.2

5.2. Status of maternity waiting home utilization among mothers who gave birth in 12 month before survey in Dangure District, Metekel zone Benishangul gumuze region North West Ethiopia 2022.

One hundred twenty nine study participants 129 (36.4%) (95% CI:31.4, 41.8) where utilized maternity waiting home from which only 48 (37.2%) where stayed more than fifteen days and 81 (62.7%) where stayed less than fifteen days.

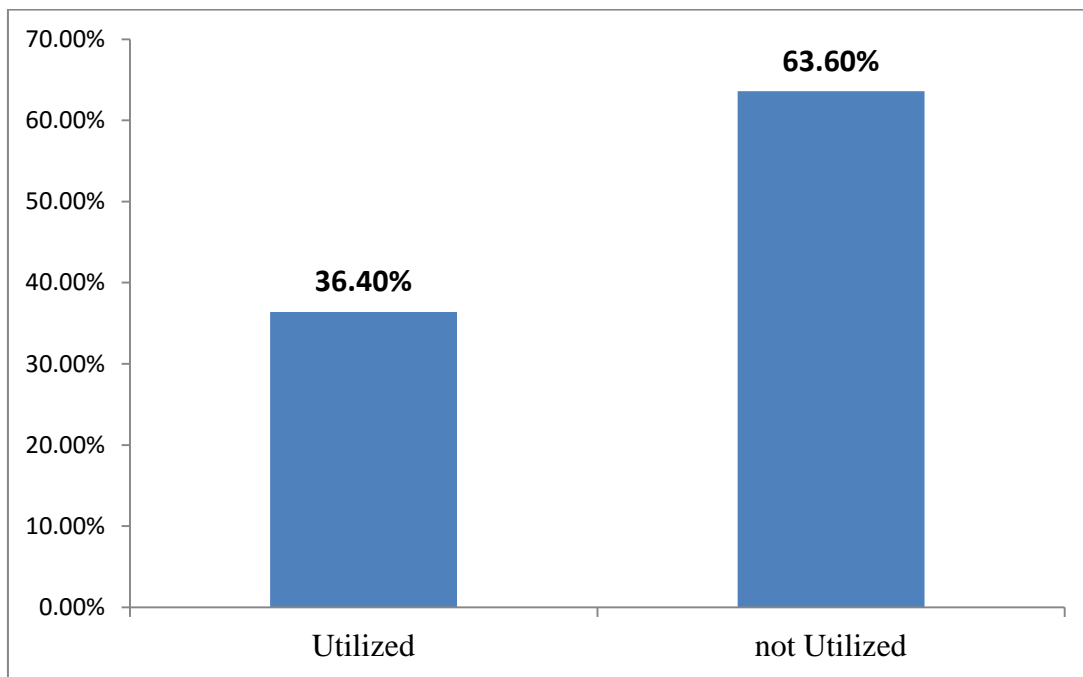


Figure 4: Status of maternity waiting home utilization in mothers who gave birth before the survey in Dangure district metekel zone, benishangul gumuz region north west Ethiopia (n=354).

5.3. The reasons not using maternity waiting home among mothers who gave birth in 12 month before survey in Dangure District, Metekel zone Benishangul gumuze region North West Ethiopia 2022.

In this study one hundred eighty five (82.2%) respondents had reported that lack of knowledge about the presence of maternity waiting home makes them not to use it. One hundred seventy three women's(76.8%) reported that lack of transportation is the factor that makes them not to utilize maternity waiting home and also one hundred twenty one respondents'(53.7%) reported that absence of cultural practice/ceremony after delivery in maternity waiting room are the reasons that makes them for not coming to waiting room.

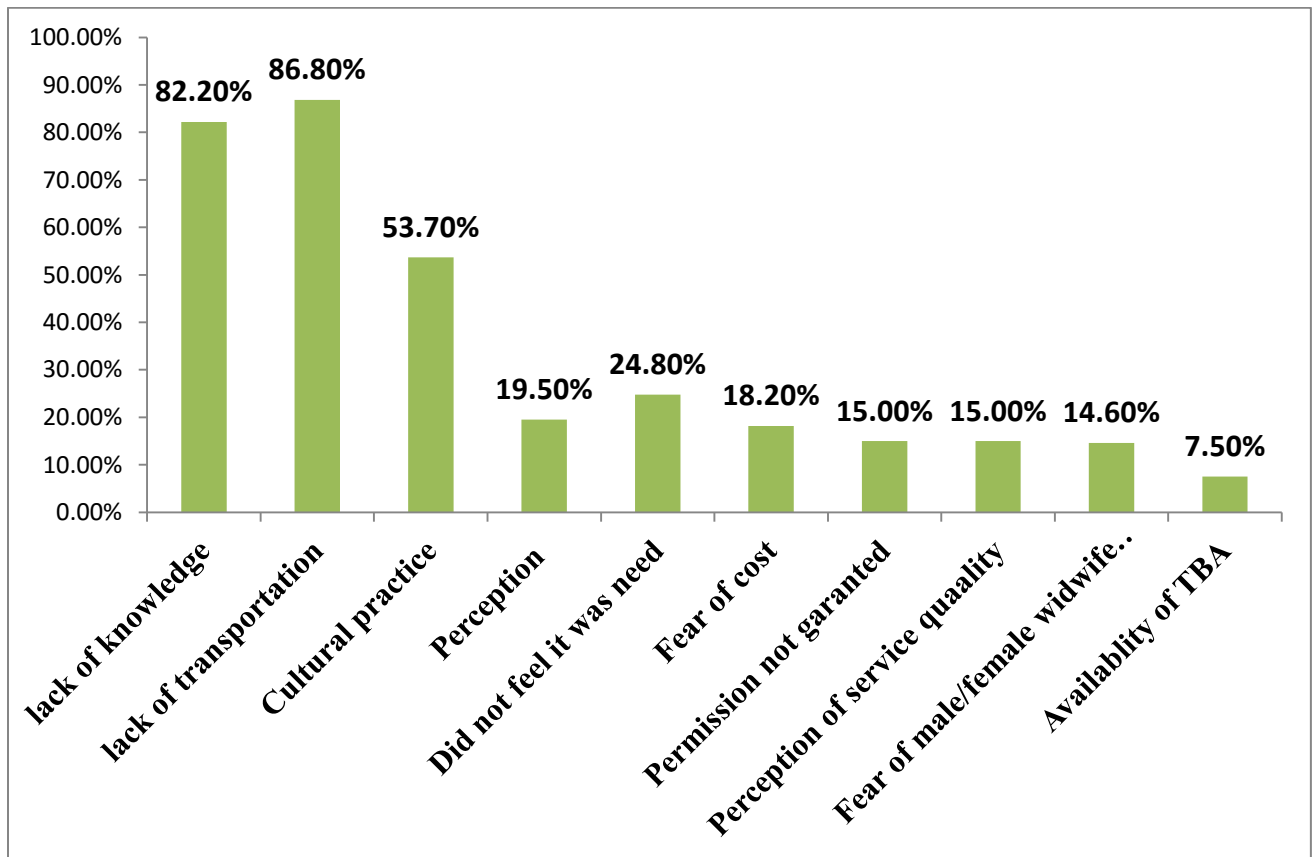


Figure 5 : reason for not utilizing maternity waiting home in Dangur District Metekel zone benishangul Gumuze region north west Ethiopia (n=225).

#### 5.4. Factors associated with maternity waiting home utilizations

Bi-variable logistic regression was performed for each independent variable along with the dependent variable. During bivariate analysis, 15 variables with p-value of less than 0.25 were exported to multivariable logistic regression analysis. Accordingly, Marital status, ethnicity, occupation of respondent, religion of the respondent, access to transportation, mode of transportation, having ANC 4 follow up, number of times ANC received, knowledge about the presence of MWH, transport cost from home to health facility, cost for food, bringing an attendant, care of children, any pregnancy related complications, and time taken from home to health facility (traveling time) were significantly associated with maternity waiting home utilization and entered in to multivariable logistic regression analysis.

After adjusting for the effects of confounding on the dependent variable, five factors were found to be statistically significant independent predictors of maternity waiting home utilization with a P-value (0.05): access to transportation from home to health facility, ANC 4 follow up, knowledge about the presence of maternity waiting homes, transportation cost, and traveling time to health facility.

Hence, after controlling for confounding factors, mothers who had access to transportation from home to health facility were 1.98 times more likely utilized maternity waiting home than mothers who have no access to transportation AOR =1.98(95%CI: 2.00-3.8), a women who are able to afford cost to transportation from home to health facility were 1.97 times more likely utilized maternity waiting home compared with mothers who are not able to afford cost for transportation AOR=1.97 (95%CI: 2.05-3.71).

Mothers who had ANC 4 follow up were 2.7 times more likely utilized maternity waiting home compared with mothers who had below ANC 4 follow up AOR= 2.7(95%CI: 2.47-15), mothers who have knowledge about the presence of maternity waiting home were 9.58 times more likely utilized maternity waiting home than mothers who lack knowledge about MWH AOR=9.58(95%CI: 4.18-21.9), and a woman who travels more than or equals to 60 minute from home to health facility on foot was 2.41 times more likely utilized maternity waiting home compared with those who travels less than 60 minutes AOR= 2.41 (95%CI: 2.21-4.98).

Table 6: Bivariate and multivariable associated factors for maternity waiting home utilization in mothers who Gave birth in 12 month before survey in Dangur District Rural kebeles Metekel Zone Benishangul Gumuz Region North West Ethiopia 2022G.C.

Variable	Characteristics	MWH		COR(95% CI)	AOR(95% CI)	p-value
		utilization				
		Yes	No			
Marital status	Married	113	170	0.4(0.24-0.64)	1.0(0.34 -2.9)	0.99
	Single	3	18	1.6(0.68-3.7)	5.3(0.84-33)	0.76
	Widowed	5	7	0.37(0.16-0.84)	0.53(0.076-3.75)	0.52
	Divorced	8	30	1.00	1.00	
Ethnicity	Amhara	43	53	0.36(0.11-1.11)	0.54(0.12-2.43)	0.42
	Gumuze	32	69	0.66(0.22-2.19)	0.52(0.34-4.4)	0.55
	Agew	25	47	0.57(0.17-1.9)	0.64(0.14-2.8)	0.58
	Shinasha	23	43	0.57(0.16-1.96)	0.48(0.10-2.29)	0.35
	Others	4	13	1.00	1.00	
Occupation of respondent	Housewife	89	154	0.74(0.18-2.9)	0.4(0.41-4.01)	0.44
	Merchant	14	25	0.76(0.17-3.4)	0.74(0.62-8.9)	0.8
	Private business	7	27	1.64(0.34-8.06)	1.7(0.70-14.0)	0.9
	Govt employer	16	12	0.32(0.69-1.5)	1.4(0.31-7.0)	0.59
	Others	3	7	1.00	1.00	
Religion of the respondent	Orthodox	69	111	1.07(0.17-6.5)	2.55(0.28-22)	0.4
	Muslim	39	54	0.92(0.14-5.4)	1.58(0.17-14)	0.6
	Protestant	10	22	2.00(0.31-12)	2.62(0.27-25)	0.4
	Others	17	32	1.00	1.00	
Access to transportation	Accesses able	75	53	0.22(0.13-0.35)	<b>1.98(2.00-3.8)</b>	<b>0.043*</b>
	Inaccessible	54	172	1.00	1.00	
Mode of transportation	On foot	68	141	1.55(0.97-2.33)	1.00(0.51- 1.8)	0.99
	On horse	3	5	1.22(0.5-2.9)	0.73(0.11-4.66)	0.74
	By ambulance	58	79	1.00	1.00	
have ANC follow up	Yes	126	197	0.16(0.08-0.34)	1.36(0.66-2.81)	0.39
	No	3	28	1.00	1.00	
Times ANC received	One times	4	42	10.0(4.34-23)	3.61(0.38-34)	0.26
	Two times	7	36	6.33(2.9-13.6)	3.01(.46-19)	0.25
	Three times	32	58	1.74(0.9-3.27)	2.05(0.33-12)	0.44
	Four times	77	79	1.06(0.58-1.94)	<b>2.7(2.47-15)</b>	<b>0.026*</b>
	More than four	9	10	1.00	1.00	
pregnancy related	Yes	62	128	0.70(0.54-0.90)	1.36(0.66-2.81)	0.39

complication	No	67	97	1.00	1.00	
Know presence of MWH	Yes	126	118	15.5(9.93-24.29)	<b>9.58(4.18-21.9)</b>	<b>0.000*</b>
	No	3	107	1.00	1.00	
Transport cost	Affordable	79	51	5.39(4.08-7.11)	<b>1.97 (2.05-3.71)</b>	<b>0.035*</b>
	Not affordable	107	117	1.00	1.00	
Cost for food	Possible	80	58	4.7(0.57-6.17)	1.39(0.71-2.77)	0.33
	Impossible	49	167	1.00	1.00	
Bringing attendant	Possible	36	26	2.96(2.1-4.11)	1.66(0.69-4.02)	0.25
	Impossible	93	199	1.00	1.00	
Care of children	Possible	44	30	3.36(2.46-4.59)	1.30(0.56-3.01)	0.53
	Impossible	85	195	1.00	1.00	
Time category	Less than 60 minute	63	40	0.22(0.17-0.3)	<b>2.41 (2.21-4.98)</b>	<b>0.012*</b>
	Greater than 60 minute	66	185	1.00		

Key; (COR= crud odds ratio, AOR= adjusted odd ratio, CI= confidence interval), \*statically significant (p-value <0.005), 1.00- reference.



## 6. DISCUSSIONS

This study finding indicates that magnitude of maternity waiting home utilization where (36.4%) (95% CI: 31.4, 41). the study finding is below compared with study done in Kenya, keffa zone Gimbo district, Sidama zone district 61%, 42%, 67%, respectively(12,21,36). the possible reason why lower utilization in the current study might be inaccessibility of the transportation, due lack of access to health information and awareness creation activities and its above with study in Arsi zone in Digilu and tiju district, study in Arbaminch town Districts which were 23.6%, 8.4%. The variation could be attributed due to difference in sample size ,time variation, socio-demographic , obstetric and gynecological, cultural and facility related factors (1,17,20).

In this study, mothers who had access to transportation from home to health facility were 1.98 times more likely utilized maternity waiting home than mothers who have no access to transportation AOR =1.98(95%CI: 2.0-3.8). This study is in line with studies done in rural health centers of Kalamo District, Zambia (20) and studies done in Eastern Gurage Zone, southern Ethiopia (10). The possible justification might poor condition of the roads in rural kebeles influences the mothers' waiting home utilization. The inaccessibility of transportation played a vital role in women's ability to not use health institutions and maternity waiting homes, and the absence of transportation remains an issue not solved by the existence of maternity waiting homes.

Mothers who had ANC 4 follow up were 2.7 times more likely utilized maternity waiting home compared with mothers who had below ANC 4 follow up, AOR= 2.7(95%CI: 2.47-15) which is consistent with study in Arbaminch town district, study done on Arsi zone Digilu and Teju district and finding result from Angolela Tera District Amhara region(17,20,37) , in which mothers who have ANC four follow up were more likely utilizing MWH as compared to a woman who have less ANC four follow up during their pregnancy. So the possible justification for the finding was repeated ANC follow up initiates mothers to utilize maternity waiting home through consistent promotion, repeated counseling and guidance of mothers by health workers on the importance of using maternity waiting home.

Finding in this study shows mothers who have knowledge about the presence of maternity waiting home were 9.58 times more likely utilized maternity waiting home than mothers who

lack knowledge about MWH AOR=9.58(95%CI: 4.18-21.9). This study is in line with the study done in indigenous regions of Gutamulac, Angolela Tera district (30,37) and Study done in sidama zone districts which states that women who have knowledge about the presence of maternity waiting home had higher odds of utilization compared with those who had no knowledge. In which 87.65% of the study participants were knowledgeable about maternity waiting home from which 67.25% of the study participants utilized which is two times higher than this study (21,37). The possible justification might be when a woman knows about the presence of maternity waiting home they were initiated to use it and stay there for better maternal and prenatal health services.

This study revealed that a women who are able to afford cost to transportation from home to health facility were 1.97 times more likely utilized maternity waiting home compared with mothers who are not able to afford cost for transportation AOR=1.97 (95%CI: 2.05-3.71). This study is comparable with study in Tanzania, study in eastern Gurage zone, southern Ethiopia(22,38). The possible justification could be transportation cost is the obstacle and negatively affect mother's maternity waiting home utilization in developing countries. Long travel is more expansive for those in difficult infrastructure. The study suggests that the cost of transportation from home to health facility affects maternal home utilization and transportation cost is varied based on time of travel and distance. Therefore women must be economically empowered and early informed by health workers to prepare transportation fee to travel to health facility.

Another factor which is associated with maternity waiting home utilization was women's traveling time. This study shows that a woman who travels more than or equals to 60 minute from home to health facility on foot was 2.41 times more likely utilized maternity waiting home compared with those who travels less than 60 minutes AOR= 2.41 (95%CI:2.21-4.98). this study is comparable with study done in Arbaminch town district, study in Jimma Zone Oromia region and study in Digilu and Teju district in Arsi zone (17,20). The possible justification could be Maternity waiting home is established to bridge the geographical barriers in pregnant women's to reduce home delivery which is essential for improving maternal and prenatal health services. Mothers who are living in distance are more utilizing than those who are near to the health facility.

## **7. STRENGTH AND LIMITATIONS**

### **7.1. Strength**

These studies have its own strength and limitations. 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.

### **7.2. Limitations**

This study was not supported by qualitative data

## **8. CONCLUSION AND RECOMMENDATION**

### **8.1. Conclusion**

The study revealed that utilization of maternity waiting home is low compared to other studies done in our country which is 129 (36.4%) (95% CI: 31.4, 41.8) and low utilization of maternity waiting home is related with socio demographic, obstetrical and gynecological, maternal and facility related problems which leads to maternal and prenatal mortality. Access to transportation, transportation cost, ANC4 follow up, knowledge about the presence of maternity waiting home in the facility and traveling time are factors significantly associated with maternity waiting home utilization. Therefore increasing maternal knowledge through health promotion, economically empowering women and respectful and supportive care at maternity waiting home is important to improve maternity waiting home utilization and contribute in reduction of maternal and neonatal mortality.

## **8.2. Recommendations**

Based on the result of the study to increase maternity waiting home utilization, the following major issues were recommended;

### **Benishangul gumuze health biro**

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.

### **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.

### **Dangure district health office**

Should have provide transportation to and from MWH or reimburse transportation cost for pregnant women's.

Should conduct Regular awareness creation program through health promotion and communication about maternity waiting home.

### **Kebele health extension workers**

Should have to mobilize community including religious and kebele leaders.

Motivating mothers to save money for transportation cost during emergency period to travel to health facility.

Should announce the date of engagement to maternity waiting home.

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**Department of population and family health**

Questionnaire to assess the magnitude of maternity waiting home utilization and associated factors among women who gave birth in 12 month before data collection in Dangure 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 Dangure 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 -----

**ANEX QUASTIONERIRE**

S.NO	Question	Response category	response	Remark
	<b>PART 1 SOCIO</b>			



<b>DEMOGRAPHIC QUESTIONNAIRE</b>				
<b>101</b>	Age in year	-----		
<b>102</b>	What is your marital status	1) Married		
		2) Single		
		3) Widowed		
		4) Divorced		
		5) Other		
<b>103</b>	Ethnicity	1) Amhara		
		2) Gumuze		
		3) Agew		
		4) Shinasha		
		5) Others		
<b>104</b>	What is your Religion?	1) Orthodox		
		2) Muslim		
		3) Protestant		
		4) Catholic		
		5) Others_____		
<b>105</b>	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		
<b>106</b>	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		
<b>107</b>	What is your occupation	1) Housewife		
		2) Merchant		
		3) Private business		
		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		
113	How long does it take you to travel to the nearest health facility?	1. Less than 60 minutes		
		2. 60 minutes to 2 hour		
		3. 2 hour to 2 ½ hour		
		4. More than 3 hours		
114	How long kilometers it take to get health center from your home	Distance in km-----		
<b>PART II OBSTATRIC AND HISTORY GYNECOLOGICAL FACTOR</b>				
201	For your last pregnancy Did you have ANC follow up?	1) Yes		<b>If ans"2" go to Q 3</b>
		2) No		
202	How many times did you receive antenatal care	1) 1 times 2) 2 times 3) 3 times 4) 4 times 5) More than four times		
		6) Don't know?		
203	How many pregnancies do you have experienced before?	1. primigravida		<b>If ans -1- go to Q 6</b>
		2. multigravida		

204	What were the pregnancy complications you were told about?	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	<b>1 yes</b> <b>2 no</b>	
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 2) at home 3) way to health facility 4) Other -----		
<b>PART III MATERNAL RELATED FACTORS</b>				
301	Did you know that health facility had a maternity waiting home before?	1) yes 2) no 3 doesn't know	<b>If no go to Q3</b>	
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	Affordable Not affordable	<b>1</b> <b>2</b>	
304	Self Decision making to use MWH	Possible Impossible	<b>1</b> <b>2</b>	
305	Bringing own cooking utensils	Possible Impossible	<b>1</b> <b>2</b>	
306	Bringing an attendant for at least 2 weeks before delivery date	Possible Impossible	1 2	
307	Children are taken care of by other family members / community	Possible Impossible	1 2	

308	Being away from your work	Possible	1	
		impossible	2	
309	Attendant being away from other work / obligations	Possible	1	
		Impossible	2	
310	Bringing a child to MWH	Possible	1	
		Impossible	2	
<b>PART IV EXPERIENCE OF MATERNITY WAITING HOME UTILIZATION</b>				
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 low costs		
		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		
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=yes 2=no	
		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-----		
	<b>PART V FACILITY RELATED FACTORS</b>			
<b>501</b>	Privacy in bed, in toilet ,	Yes	1	
		No	2	
<b>502</b>	Availability of midwife checks	Yes	1	
		No	2	
<b>503</b>	Availability of food ,clean water ,cooking uticiels	Yes	1	
		No	2	
<b>504</b>	Availability of cooking area	Yes	1	
		No	2	
<b>505</b>	Availability of Recreational materials TV/Radio	Yes	1	
		No	2	
<b>506</b>	Availability of blankets, bed mattress, ITN and other materials	Yes	1	
		No	2	
<b>507</b>	Availability of traditional ceremony after delivery	Yes	1	
		No	2	
<b>508</b>	Availability of toilets, bathing	Yes	1	
		No	2	
<b>509</b>	Accessibility of electric power	Yes	1	
		No	2	
<b>510</b>	Availability of medical equipment and medicine.	Yes	1	
		No	2	
<b>511</b>	Extra space for the family to stay with you at MWH	Yes	1	
		No	2	

### በጂማ ዩኒቨርሲቲ በጤና ኢንስቲትዩት

በህብረተሰብና ስነ-ተዋልዶ ትምህርት ክፍል የተዘጋጀ የ2ተኛ ዲግሪይ የተማሪ ሙብራቱ በጉኖ የመመረቅያ ጽሁፍ በአማርኛ የተዘጋጀ መጠይቅ

**የጽሁፉ ርዕስ** ፤ በአንድ አመት ውስጥ በዳንጉር ወረዳ ከወለዱ እናቶች የእናቶች ማቆያ ቤት የተጠቀሙና ና ተግዳሮቶቹ በሚል በዳንጉር ወረዳ መተከል ዞን ቤኒሻንጉል ጉሙዝ ክልል በሚል

ጤና ይስጥልኝ ! ስሜ \_\_\_\_\_ ይባላል እኔ በእናቶች ማቆያ አጠቃቀምና ተግዳሮቶቹ በሚል በዳንጉር ወረዳ በሚጠናው የመመረቅያ ጽሁፍ ላይ መረጃ ስብሰባ 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 አስተዋጾ እጅግ አደርጌ አመሰግናለሁ፤፤

በዚህ ጥናት ላይ ለመሳተፍ ፍቃደኛ ነዎት ?

አዎ

አይደለሁም

ቀን \_\_\_\_\_

ፊርማ \_\_\_\_\_

ተ.ቁ	መጠይቆች	የመልስ አማራጮች
	<b>ክፍል1:- ማህበራዊ እና ስነ ህዝባዊ ጥያቄዎችን በተመለከተ</b>	
101	እድሜ	-----
102	የጋብቻ ሁኔታዎ ምንድን ነው?	<ol style="list-style-type: none"> <li>1. ያገባች</li> <li>2. ያላገባች</li> <li>3. ባሉዋ የሞተባት</li> <li>4. አግብታ የፈታች</li> </ol>
103	ብሄርዎ ምን ነው?	<ol style="list-style-type: none"> <li>1. አማራ</li> <li>2. ጉሙዝ</li> <li>3. አገው</li> <li>4. ሺናሻ</li> <li>5. ሌላ (ይገለፅ)-----</li> </ol>
104	የምን ሃይማኖት ተከታይ ነዎት?	<ol style="list-style-type: none"> <li>1. ኦርቶዶክስ</li> <li>2. እስልምና</li> <li>3. ፕሮቴስታንት</li> <li>4. ሌላ (ይገለፅ)-----</li> </ol>
105	የትምህርት ደረጃዎ እስከ ምን ድረስ ነው?	<ol style="list-style-type: none"> <li>1. ማንበብና መጻፍ አልችልም</li> <li>2. ማንበብና መጻፍ ብቻ እችላለሁ</li> <li>3. የመጀመሪያ ደረጃ ት/ት አጠናቅቄያለሁ</li> <li>4. የሁለተኛ ደረጃ ት/ት እና ከዚያ በላይ ተምሪያለሁ</li> <li>5. ከፍተኛ ትምህርት ደረጃ</li> </ol>
106	የባለቤትነት የትምህርት ደረጃ	<ol style="list-style-type: none"> <li>1. ማንበብና መጻፍ አይችልም</li> <li>2. ማንበብና መጻፍ ብቻ ይችላለሁ</li> <li>3. የመጀመሪያ ደረጃ ት/ት አጠናቅቆ</li> <li>4. የሁለተኛ ደረጃ ት/ት እና ከዚያ በላይ</li> <li>5. ከፍተኛ ትምህርት ደረጃ</li> </ol>
107	ስራዎ ምንድን ነው?	<ol style="list-style-type: none"> <li>1. የቤት እመቤት</li> <li>2. ነጋዴ</li> <li>3. ግል ስራ</li> <li>4. መንግስት ሰራተኛ</li> <li>5. ቀን ሰራተኛ</li> </ol>

		6. ሌላ (ይገለፅ)-----
108	የባለ ቤቶች ስራ ምንድን ነው?	1. ነጋዴ 2. አርሶ አደር 3. ተማሪ 4. የመንግስት ሰራተኛ 5. ቀን ሰራተኛ 6. ሌላ (ይገለፅ)-----
109	የቤተሰብ ብዛት በቁጥር	-----
110	እንደ ቤተሰብ በወር ምን ያህል ገቢ ያገኛሉ?	----- የኢትዮጵያ ብር
111	ትራንስፖርት ተደራሽነት	1. ተደራሽ ነው 2. ተደራሽ አይደለም
112	የትኛውን የትራንስፖርት አይነት ነው የምትጠቀሙት	1. በእግር 2. በቅሎ/አህያ 3. በአንቡላንስ
113	እቤቶች ከጤና ተቋም በምን ያክል ይርቃል	1. ከ60 ደቂቃ በታች 2. ከ60 ደቂቃ እስከ 2 ሳዓት 3. ከ 2 ሳዓት እስከ 2 ሳዓት ተኩል 4. ከ3 ሳዓት በላይ
114	የጤና ተቋም ከቤተሰብ በምን ያክል ኪሎ ሜትር ይርቃል	ርቀት በኪሎ ሜትር-----
	<b>ክፍል 2፤ ከእርግዝና እና ወሊድ ጋር የተያያዙ ጥያቄዎች</b>	
201	በዚህ እርግዝናዎ 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/አደገኛ ምልክቶች ውስጥ የሚያውቁቱን ሊነግሩኝ ይችላሉ?	<ol style="list-style-type: none"> <li>1. ከማህጽን የደም መፍሰስ</li> <li>2. ከማህጽን ፈሳሽ መፍሰስ</li> <li>3. ከፍተኛ ራስ ምታት</li> <li>4. የአይን ብጁታ</li> <li>5. ትኩሳት</li> <li>6. የሆድ ህመም</li> <li>7. የጽንሰ እንቅስቃሴ መቀነስ,</li> <li>8. የሰውነት እብጠት</li> <li>9. ሌላ ካለ ይገለጽ -----</li> </ol>
205	ከ እርግዝና ጋር የተያያዙ አደገኛ ምልክቶች ታይቶ ያውቃሉ ወይም አጋጥሞ ያውቃሉ	<ol style="list-style-type: none"> <li>1. አዎ</li> <li>2. አይደለም</li> </ol>
206	የአሁኑን ልጅ የት ነዎ የወለዱት	<ol style="list-style-type: none"> <li>1. በጤና ተቀዋም</li> <li>2. ወደ ጤና ተቀዋም አዩኔድኩን በመንገድ ላይ</li> <li>3. በቤት ውስጥ</li> <li>4. ሌላ ካለ ይገለጹ-----</li> </ol>
207	ከጤና ተቋም ውጭ ለወለዱ እናቶች ብቻ ; ለምንድር ነው ልጄን ከጤና ተቋም ያልወለድኩ? ከአንድ በላይ መልስ ይቻላል	<div style="background-color: #cccccc; height: 20px; margin-bottom: 5px;"></div> <ol style="list-style-type: none"> <li>1. የ ጤና ተቋም ርቀት ስላለው</li> <li>2. ባህላዊ ስርዓት ባለመኖሩ</li> <li>3. ባለማወቅ</li> <li>4. አስፈላጊነቱን አለማሰብ</li> <li>5. የትራንስፖርት እጥረት</li> <li>6. ፍቃድ ያለማግኘት</li> <li>7. ገንዘብ ስለማይጠይቅ</li> <li>8. የአገልግሎት ጥራት ስጋት</li> <li>9. የጤና ባለሙያዎች አመለካከት ስጋት</li> <li>10. ወንዶች ባለሙያዎች እንዳያዩኝ ስጋት</li> <li>11. ልምድ አዋላጆች ስላሉ</li> </ol>
<b>ክፍል 3፣ ከእናቶች ጋር የተያያዙ ችግሮች</b>		
301	የጤና ጣቢያው የእናቶች ማቆያ ቤት ያለው መሆኑን ታውቁ ነበር?	<ol style="list-style-type: none"> <li>1. አዎ</li> <li>2. አላውቅም</li> </ol>

አዎ ከሆነ ወደ ተራ ቁጥር 2

302	መረጃውን ከየት አገኙት	1. ከጤና ኤክስቴንሽን ሰራተኞች		
		2. ከጤና ልማት ሰራዊት አባላት		
		3. ከጎረቤቶች		
		4. ከጤና ጣቢያው		
		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 በማረፊያ ቤቱ በምትቆይበት ጊዜ ቤትሽ ልጆችሽን የሚንከባከብ ቤተሰብ ወይም ዘመድ ማግኘት	የሚቻል	1	
		የማይቻል	2	
308	ለረጅም ጊዜ ከስራሽ መራቅ(ከቤት ውስጥ ስራ ውጭ)	የሚቻል	1	
		የማይቻል	2	
309	አስታሚኒን ከስራው/ዋ ለረጅም ጊዜ መራቅ	የሚቻል	1	
		የማይቻል	2	
310	ልጆችሽን ከአንች ጋር ወደ ነፈሰጡር ማረፊያ ቤቱ ይዞ መምጣት	አስፈላጊ	1	
		አላስፈላጊ	2	
<b>ክፍል 4፤ የማቆያ ቤት አጠቃቀምን በተመለከተ</b>				
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 የገባች ?	_____ (ሳምንቱን በቁጥር ያስቀምጡ)		
403	ምን ያክል ቀን በማቆያ ቆየሽ ?	1. 7 ቀንና ከዛ በላይ		
		2. 7 ቀንና ከዛ በታች		
404	የ እናቶች ማቆያ እንድትጠቀሙ የወሰነው ማን ነው ?			
		1. እኔ በራሴ		
		2. ባለቤቴ		
		3. በጋራ		

		4. የጤና ባለሙያዎች		
		5. ልምድ አዋላጆች		
		6. ሌላም ካለ ይገለጽ		
405	የእናቶች ማቆያ ቤት እንድትጠቀሙ ያደረገሽ ምክንያት ምን ነበር ?		1=አዎ 2=አይደለም	
		1. ጤነኛ ልጅለመወለድ		
		2. ሊከሰት የሚችል አደጋ በመፍራት		
		3. ከዚህን በፊትም ስለ ምጠቀም		
		4. ከሌላ ተቋም ሪፍረ ተደርጌ		
		5. በቤተሰቤ ግፊትና ፍቃድ		
		6. ሌላም ካለ ይገለጽ----- -----		
	<b>ክፍል 5 ፣ ከተቋም ጋር የተያያዙ ችግሮች</b>			
501	የተለዩ አልጋ፣ ሻውር ፣ እና ሌሎች አገልግሎት	አለ	1	
		የለም	2	
502	የባለሙያ ክትትል	አለ	1	
		የለም	2	
503	አዝናኝ ነገሮች ቴሌቪዥን ፣ ሬዲዮ	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 የገንጭ ስናስርዓት መኖር	አለ	1	
		የለም	2	
509	የተለዩ መጻጻጃ ቤት ለእናቶች ማቆያ መኖር	አለ	1	
		የለም	2	
510	በቂ ቤተሰብ ሚቆይበት ቦታ	አለ	1	
		የለም	2	

JIMMA UNIVERSITY  
INSTITUTE OF HEALTH

FACULTY OF PUBLIC HEALTH

DEPARTMENT OF POPULATION AND FAMILY HEALTH

**APPROVAL SHEET**

This is to certify that the thesis entitled “Magnitude of maternity waiting home utilization and associated factor among women who gave birth in 12 month before survey in Dangure District Metekel zone Benishangul Gumuze regional state ” submitted to Institute of health, faculty of public health, department of population and family health ; in partial fulfillment of the requirements for masters of public health in Reproductive Health, is a record of original research prepared by **MEBRATU BEGUNO (Bsc)**, under my supervision and no part of the thesis work has been submitted for any other degree. The assistance and help received during the course of thesis work have been duly acknowledged. Therefore, I recommend that it can be accepted as fulfilling the thesis requirements.

\_\_\_\_\_

Name of 1<sup>st</sup> advisor

Signature

Date

\_\_\_\_\_

Name of 2<sup>nd</sup> advisor

Signature

Date