



**WOLKITE UNIVERSITY COLLEGE OF HEALTH SCIENCES AND MEDICINE
DEPARTMENT OF PUBLIC HEALTH**

MAGNITUDE OF MATERNITY WAITING HOME UTILIZATION AND ASSOCIATED FACTORS AMONG WOMEN WHO GAVE BIRTH WITHIN 12 MONTHS BEFORE SURVEY IN GETA DISTRICT, GURAGE ZONE, CENTRAL ETHIOPIAN,2025

BY:

CHERU BIREGA

RESEARCH THESIS TO BE SUBMITTED TO DEPARTMENT OF PUBLIC HEALTH, COLLEGE OF MEDICINE AND HEALTH SCIENCE, WOLKITE UNIVERSITY, IN PARTIAL FULFILLMENT OF THE REQUIREMENT OF THE DEGREE OF MASTER OF PUBLIC HEALTH IN REPRODUCTIVE HEALTH

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Wolkite, Ethiopia



SCHOOL OF MEDICINE AND HEALTH SCIENCE

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MPH THESIS

BY CHERU BIREGA(BSC)

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A Research thesis submitted to the department of public health, college of medicine and
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degree of master of public health in Reproductive health.

BY:

Cheru Birega (BSC.)

Dr. Agize Asfaw (PHD/HN, Ass.t Prof.)

Mr. Kifle Lentiro (MPH/RH, Ass.t Professor)


Mar., 2026


Wolkite, Ethiopia

APPROVAL SHEET

I certify that I have thoroughly read and evaluated this thesis entitled magnitude of maternity waiting home utilization and associated factors among women who gave birth within 12 months prior to survey in geta district, gurage zone central ethiopian,2025, prepared by **CHERU BIREGA**. I recommend that it be submitted as fulfilling the thesis requirement.

Submitted by: CHERU BIREGA (BSc)

Main advisor, Dr. Ageze Asfaw (PHD/ HN, Ass.t Prof.)  Date 28/3/2018
Signature

Co-advisor, Mr. Kifle lentiro (MPH/RH, Ass.t pro)  Date 28/3/2018
Signature

As a member of the Board of Examiners for the MPH Thesis Open Defense Examination, I hereby certify that I have read and thoroughly evaluated the thesis submitted by **Cheru Birega** and have participated in the examination of the candidate. Based on the quality of the work presented and the defense provided, I recommend that the thesis be accepted as fulfilling the requirements for the degree of Master of Public Health in Reproductive Health.

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|--|-----------|------|
| 1. External Examiner: | Signature | Date |
| 2. Internal Examiners: | Signature | Date |
| 3. Chair Person: | Signature | Date |
| 4. Post-graduation coordinator: | Signature | Date |
| 5. Dean, SGS: | Signature | Date |

Final approval and acceptance of the thesis is contingent upon the submission of its final copy to the council of postgraduate program (CPGS) through the candidate's department or school graduate committee (DGC or SGS).

DECLARATION

By my signature below, I declare and affirm that this MPH thesis entitled “magnitude of maternity waiting home utilization and associated factors among women who gave birth within 12 months prior to survey in geta district, Gurage zone central ethiopian,2025” is my own work and I declare that this thesis has not been submitted to any other university anywhere for the award of any academic degree and I have cited and referenced all sources and material used in this document.

Cheru Birega

Signature

Date-----

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Acronyms and Abbreviations

ANC: Antenatal Care

AOR: Adjusted Odds Ratio

CI: Confidence Interval

DHIS: District Health Information System

EDHS: Ethiopian Demographic Health Survey

FMOH: Federal Ministry of Health

MWHS: Maternity waiting home service

MDGS: millennium development goal

NID: Non-Institutional Delivery

PNC: Post Natal Care

SBA: Skill Birth Attendant

SSA: Sub Saharan Africa

SDG: Sustainable Development Goals

SNNPR: South Nation and Nationalities People Region

UNICEF: United Nations International Children Emergency Fund

WHO: World Health Organization

Abstract

Introduction: Maternity waiting homes are a cost-effective approach to ensure safer deliveries and healthier mothers and babies. It is important to enhance accessibility of healthcare services, by closing the gap between remote communities and medical facilities, an ensuring timely access to skilled birth attendance. In Sub-Saharan Africa, close to 30% of women with proper ANC follow-up ended up delivering at home. The types of waiting homes and their capacity to accommodate clients differed across regions in Ethiopia.

Objective: To assess the magnitude of maternity waiting home Utilization and associated factors among women who gave birth within 12 months prior to the survey in rural kebeles of Geta district Gurage zone, Central Ethiopian. 2025

Methods: A community-based cross-sectional study design was conducted to determine the extent of maternity waiting home utilization and its associated factors among women who gave birth within 12 months prior the survey in Geta district. A simple random sampling method was used to extract 365 samples from six rural kebeles from July 1 up to 30/2025. The data was collected through face-to-face interview by using pre-tested structured questionnaires. Then it was entered into Epi-data version 4.2 and then exported to SPSS version 26 for cleaning, coding, and analysis. And major analysis of data was conducted with binary logistic regression model.

Results: 365 mothers who had given birth in the last year were successfully interviewed. Out of the total study participants, 131 study participants (36%) mothers with the 95%CI of (31.0 _40.8) utilized maternity waiting home. ANC follow up (AOR = 9.001, 95% CI: 2.407,33.662, $p = 0.001$), maternal age 25-35yrs (AOR =20.1, 95% CI: 3.765,107.41, $p = 0.001$),no access to transportation facilities (AOR =57, 95% CI: 14.607,225.608, $p = 0.000$), multigravida 95%CI AOR =7.728 (1.692,35.293), maternal occupation being merchants were AOR= 12.787 , 95% CI: (3.193,51.207), women whose husbands were farmers With AOR= 22.9 with 95% CI of (4.912,106.767) $p = 0.001$, were identified as independent predictors of maternity waiting utilization

Conclusion Overall, maternity waiting home utilization accounted for 36% of the study population, which is predicted with ANC follow up, maternal age, maternal gravidity, maternal and husband occupation. Therefore, enhancing maternity waiting home utilization may require expanding strategic approaches.

Keywords: Maternity waiting homes, utilization, Geta woreda, associated factors, Ethiopia

Chapter one –introduction

1.1 Background

Maternity waiting homes are a cost-effective strategy to ensure safer deliveries and healthier mothers and babies. It is important to improved access to care. Ethiopian Ministry of Health introduced a guideline for establishing standardized maternity waiting homes at health facilities. In Sub-Saharan Africa, nearly 30% of women who received optimal antenatal care follow-up delivered at home. At the national level, approximately half of health facilities were equipped with maternity waiting homes. In Amhara, more than two-thirds of facilities had such homes, while in SNNP and Oromia, about half of the facilities were equipped. Conversely, Gambella had none, and highly urbanized regions had relatively few (1). Almost (70%) health centers had maternity waiting homes. The types of waiting homes and their capacity to accommodate clients differed across regions in Ethiopia (2).

To meet the ambitious targets of the Sustainable Development Goals, maternal health service coverage must be expanded nationwide (3). The National Reproductive Health Strategy (2016–2020) recommended scaling up maternity waiting home initiatives at health centers to ensure timely quality care for women from remote areas, with a target of 75% coverage by 2020. In Ethiopia, limited coverage and pronounced inequalities in maternal health service utilization remain major obstacles to achieving the Sustainable Development Goals (4). Accordingly, the majority of health centers in Ethiopia have established maternity waiting homes, and in 2015 the Federal Ministry of Health approved a standardized guideline for their implementation. Evidence has shown that maternity waiting homes have a significant positive impact on birth outcomes (5).

The use of maternity waiting homes was associated with reduced adverse maternal and perinatal birth outcomes relative to non-users (6). Maternity waiting homes have existed in Ethiopia for over 45 years, though their expansion to lower-level health facilities is a relatively recent initiative (7).

1.2 Statement of the problem

Low- and middle-income countries, especially those in sub-Saharan Africa and South Asia, account for the majority of maternal mortality (8). An estimated 99% of maternal mortality

worldwide is concentrated in low-income countries, of which 66% is borne by sub-Saharan Africa due to lack of access to health service. Obstetric complications represent a major global health challenge, affecting approximately one in six pregnant women (9). Ethiopia ranks among the countries with the highest maternal mortality ratio, with the majority of deaths attributable to direct obstetric complications (10).

The WHO has recommended maternity waiting homes as a strategy to reduce geographic obstacles to timely maternal care (5). Despite the maternal mortality has declined, the rate of death is still high(3). The endorsement of maternity waiting homes adjacent to health facilities is a strategy to reduce inequities by enhancing access for poorer women to advanced management of childbirth complications (10). For every maternal death, many women survive but suffer long-term complications, including adverse pregnancy outcomes, disabilities, and psychological disorders. In 2022, the global maternal near-miss rate was estimated at 18.67 per 1,000 live births A survey assessing the implementation status of Ethiopia's maternal death surveillance and response system reported an overall Maternal Death Surveillance and Response Performance Index (MDSPI) score of 33.9%. (12). That means there are also un-reportable maternal deaths due to weak surveillance system.

Maternal deaths occurring at home or in transit reflect the combined influence of individual-level and institutional health factors. Despite the breadth of studies on maternal death, insufficient focus has been directed toward deaths outside health facilities, particularly those at home or in transit (13). Comprehensive Emergency Obstetric and Newborn Care was available in only 75% of hospitals, whereas Basic Emergency and Essential Obstetric and Newborn Care was provided in 53% of health centers (12).

A maternity waiting home is a residential facility situated near a qualified medical institution, where expectant mothers can reside until delivery and be transferred for essential childbirth care or management of obstetric and newborn complications, to enhance access to skilled maternal care among populations residing in remote or underserved areas (14). The willingness to utilize maternity waiting homes was markedly reduced among marginalized women (15). In Sidama Zone, maternity waiting home utilization reached a prevalence of 67.25% (6).

Despite the majority of health centers having maternity waiting homes, institutional delivery service utilization in Geta district was reported at 65% in 2024 (7). This coverage is relatively low, and no prior study has assessed the magnitude of maternity waiting home

(MWH) utilization or the factors influencing its use in the study area or the wider region. Therefore, the aim of this study is to determine the status of MWH utilization and to identify associated factors in Geta District of Gurage Zone, Central Ethiopia Region

1.3 Significance of the study

The findings of this study will provide valuable insights for healthcare workers. Managers, health policymakers, and future researchers. Specifically, the results would help health workers evaluate the current status of maternity home utilization. This assessment will allow institutions to identify the existing type of challenges within community recognize areas requiring improvement, and implement targeted interventions to enhance maternity home utilizations. This study provides evidence that will support effective maternity waiting home utilization and guide strategic planning for the Geta district Health Office, Zonal Health Department, Central Ethiopia Regional Health Bureau, and the Ministry of Health in developing interventions to improve utilization. Additionally, the findings of this study will assist the Central Ethiopia Regional Health Bureau in developing or revising guidelines on maternity waiting home utilization, while also encouraging both governmental and non-governmental partners to support related initiatives. Moreover, the findings will assist the Ministry of Health in developing or revising policies related to maternity waiting homes. Findings can guide investments in maternity waiting homes, ensuring they are adequately equipped and accessible to those in need

Finally, for researchers and policymakers, the results will serve as a baseline and supporting data for developing policies, strategies, guidelines, and protocols aimed at improving maternity home utilizations and the overall quality of healthcare delivery in Ethiopia

Chapter two -Literature review

2.1 status of maternity waiting home utilizations

Maternity waiting home utilization varies considerably across countries and regions; while some facilities are well utilized, others remain underutilized or empty. Studies conducted in Dangur District, Northwestern Ethiopia, and Eastern Gurage Zone reported maternity waiting home utilization rates of 36.4% and 7%, respectively (4,5). The relatively short duration of stay indicates that many users may present with false or early labor and are temporarily accommodated at the maternity waiting home. This pattern may reflect inadequate referral practices, as women are not being directed to MWHs 1–2 weeks prior to delivery, as recommended. (8) (9).

Maternity waiting homes may not always be perceived as a mechanism to facilitate access to obstetric services by positioning women closer to skilled birth attendants before delivery (10). According to study conducted in Gamo Gofa zone and Hadiya zone stated that 48.8% and 34% of pregnant women were intended to use maternity waiting homes respectively (10) (11). A systematic review and meta-analysis which was conducted in Ethiopia shows that the pooled prevalence of intention to use maternity waiting home was 52.25% (12). Maternity waiting home utilization in Ethiopia remains generally low, with marked differences across regions. The pooled estimate of maternity waiting home utilization among women was 22.49% (9). Also, research conducted on rural women in hard-to-reach areas in Ethiopia shows MWH utilization was found to be 8.4% (9).

The prevalence of non-institutional delivery was highest in Chad (78.6%), followed by Madagascar (60.6%), Nigeria (60.4%), and Angola (54.3%). Rural sub-Saharan Africa accounted for approximately 85% of the non-institutional delivery rate. (13). A community-based cross-sectional study conducted in 2018 among women aged 15–49 years in Sherkole District, Benishangul Gumuz Region, revealed that 80% of deliveries occurred at home and were assisted by non-skilled birth attendants (14). Similarly, a cross-sectional study conducted in Cheha District, Gurage Zone; in 2015 revealed that only 31% of women delivered their most recent child in a health facility (15). Across Ethiopia, about half of health facilities had maternity waiting homes. Regional variation was evident, with more than two-thirds of facilities in Amhara, half in SNNP and Oromia, and none in Gambella. In contrast, highly urbanized regions had limited numbers of such homes(1). Studies in developing countries have shown that maternity waiting home users had an 80% reduction in

maternal mortality and a 73% reduction in stillbirth compared to non-user (5). Across studies, the utilization of maternity waiting homes varied between 7% and 42.5%, yielding a pooled prevalence of 22.49% (16).

In Dabat District, Northwest Ethiopia, a community-based cross-sectional study carried out from January to February 2019 reported that 16.2% of pregnant women utilized maternity waiting homes (17). Also, the result of a research conducted at Teltelle district, Ethiopia, only 26.64% of women utilized MWHs (18). A cross-sectional study conducted, in 2019 in Sidama Zone Southern Ethiopia: shows that the Utilization of maternity waiting home in Sidama Zone was 67.25% (6). A community-based cross-sectional study conducted in the Finfinnee Special Zone, Central Ethiopia, reported that overall maternity waiting home utilization was 34.0% (19) (20). A Community-based cross-sectional study Digelu and Tijo district less than a quarter (23.6%) of women had utilized the maternity waiting home (21).

2.2 Factors associated with maternity waiting home utilization

Findings from a community-based cross-sectional study in Southern Ethiopia indicated that maternity waiting home utilization was positively associated with younger age (<25 years), higher educational status, and greater autonomy in decision-making. Women with husbands of higher educational levels, those who had received health education on pregnancy danger signs, had prior facility-based childbirths, and perceived fewer barriers to MWH use were more likely to utilize the service(4)(15). A study conducted in the Sidama Zone concluded that women with knowledge of maternity waiting homes, those whose husbands were literate, and Protestant religion followers had a higher likelihood of utilizing maternity waiting homes (22).

Many studies in Ethiopia illustrated that maternal education status have significantly associated with MWH utilization in which more educated women are more likely to utilize the service compared to less educated women (8). Findings from a case-control study in the Gedeo Zone revealed that maternity waiting home use was significantly influenced by women's education, travel time, antenatal care attendance, household composition (two or more children under five), prior obstetric complications, previous delivery location, and awareness of maternity waiting home services (23).

In Gamo Gofa Zone, a community-based cross-sectional study showed that women who lived within one hour's walking distance of a maternity waiting home were less likely to use it, whereas prior users demonstrated a utilization rate of 55% (11). A study conducted in the

Finfinnee Special Zone revealed that maternity waiting home utilization among the wealthiest women was 2.5 times higher compared to poor women (19). Findings from an unmatched case–control study in Gedeo Zone indicated that women with advanced education had 8.4 times greater odds of using maternity waiting homes(7). Findings from a household survey conducted in Dangur District between June 5–30, 2022, indicated that mothers who delivered at home were less likely to utilize maternity waiting homes than those who delivered in health facilities (8). Leaving children at home in the care of others was identified as a barrier that negatively affected women’s willingness to utilize maternity waiting homes (4).

A correctional study in Sidama Zone, Southern Ethiopia shows Mothers in the age group of 31–40 years had less use maternity waiting home compared to mothers in the age group of 20–30 years (6). A community based correctional study conducted in 2019 in Gamo zone shows that direct subjective norm was significantly associated with intention to use maternity waiting home (11). Systematic reviews and meta-analysis showed that ability of women to independently decide to use an MWH was positively associated with its utilization (24).

2.3 conceptual frame work

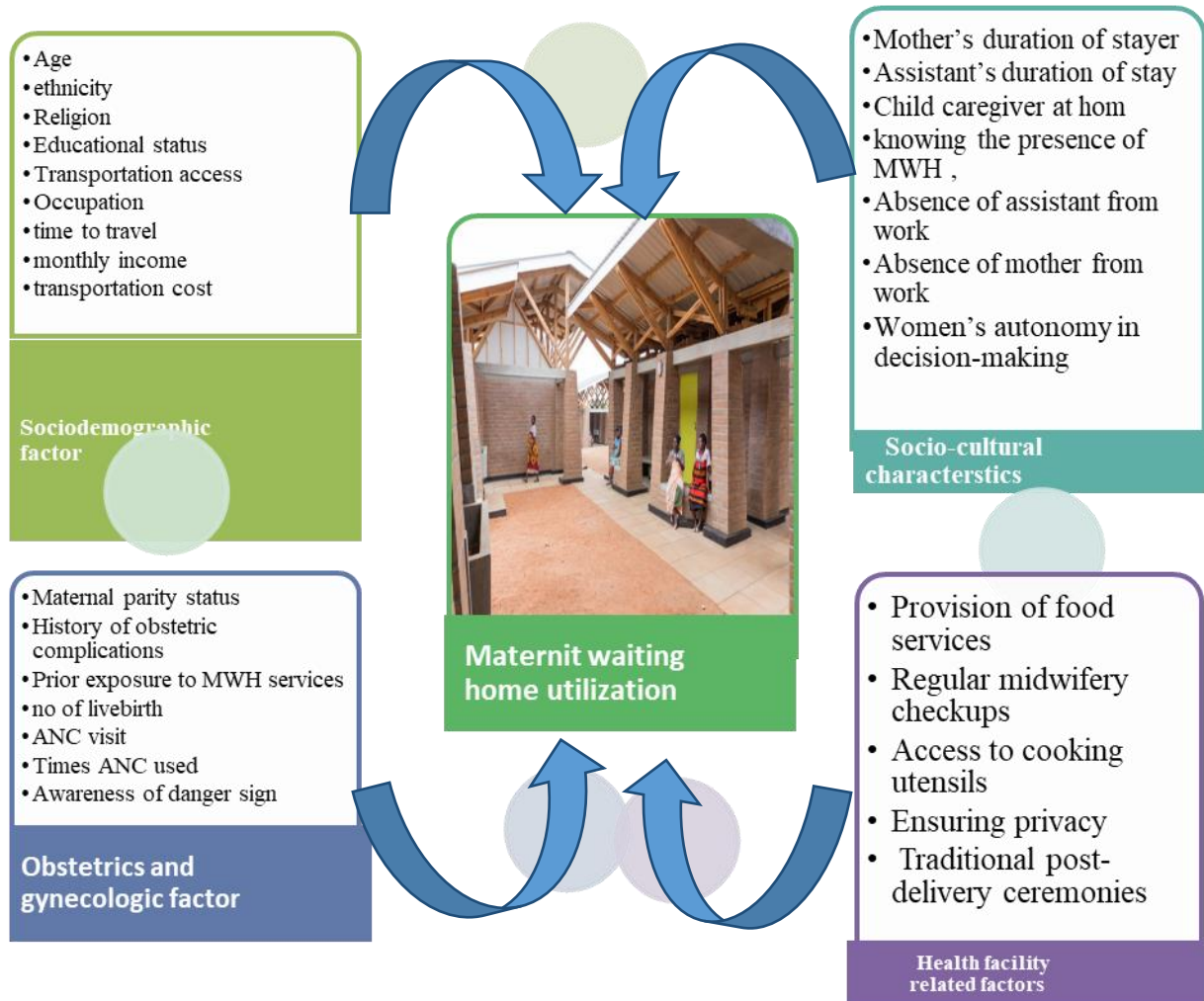


Figure 1 : conceptual framework for Maternity Waiting Home Utilization of mothers who gave birth in 12 months before the survey in Geta Districts of Gurage zone Zone, Central Ethiopian region, 2025. Adopted from the study conducted in Dangur district southern Ethiopia (8).

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 months before the survey in rural kebeles of Geta woreda Gurage zone, Central Ethiopian region.

3.2 Specific objectives

- ✓ To determine the magnitude of maternity waiting home utilization among women who gave birth in 12 months before the survey in Geta woreda Gurage zone, Central Ethiopian region
- ✓ To identify factors associated with maternity waiting home utilization among women who gave birth in 12 month before the survey in Geta woreda Gurage zone Central Ethiopian region.

Chapter four -Method and materials

4.1 study area and period

The study was conducted in the Geta District, rural kebeles of the Gurage Zone, Central Ethiopian Region, from June 1 to July 30, 2025. Geta district is among 10 woreda and 5 town administrations found in Gurage zone, Central Ethiopia region. Geta district is one of the sub-groups of the Sebat Bet Gurage., The district is bordered by Silte Zone to the south, Endegagn District to the southwest, Enor District to the west, Cheha District to the north, and Gumer District to the east. Geta District is located approximately 247 km southwest of Addis Ababa and 89 km south of Wolkite, the administrative center of the Gurage Zone. The district has 19 kebeles of this 16 are rural and 3 are urban kebeles. The total population of the district is 69,365, of whom 33,020 are men and 36,345 are women. According to data from the Geta district Health Office, reported through DHIS2 in 2016 E.C., the number of women who gave birth within one year was 2,596. The district has 3 governmental health centers one NGO health center one primary hospital and 16 health posts which serves the community. There are 4 ambulances which serve for emergencies and referral services. All health facilities except the health posts have maternity waiting home (7).

4.2 Study design

Community based cross sectional study design was conducted to assess the magnitude of maternity waiting homes utilization and associated factors among women who gave birth in the last 12months in Geta district, Central Ethiopia, 2025

4.3 Population

4.3.1 Source population

The source population for this study was all women who gave birth within 12 months of the survey in rural kebeles of Geta woreda Gurage zone, central Ethiopian region

4.3.2 Study population

The study population consisted of all women who had given birth within the last one year prior to the survey and who were selected and included through the sampling procedure.

4.4. Inclusion and exclusion criteria

4.4.1 Inclusion criteria

Women who had given birth within the past 12 months and had resided for more than six months in the rural kebeles (lower administrative units) of Geta district were included in the study.

4.4.2 Exclusion criteria

Women who had difficulty communicating due to severe illness, as well as mothers undergoing elective surgery, were excluded from the study.

4.5 Sample size determination and technique

4.5.1 Sample size determination

The sample size for the first objective was determined using the single population proportion formula. The calculation was based on an assumed proportion of maternity waiting home utilization from a study conducted in Keffa Zone (42.5%), with a 95% confidence interval, a 5% margin of error, and an additional 10% to account for non-response. (25). Accordingly, the determined sample size was;

Where; n=the desirable calculated sample size $Z (\alpha/2) = 1.96(5\%)$

P =42.5%

d=degree of accuracy desired (5%)

Accordingly, the sample size was calculated using the single population proportion formula.

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

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

$$n = 374$$

Since the total number of mothers who gave birth within one year in the rural kebeles of the study district was less than 10,000 (N = 2,596), the population correction formula was applied to adjust the sample size.

$$nf = \frac{ni}{\left(1 + \frac{ni}{N}\right)}$$

$$nf = \frac{374}{1 + 374/2596} = 332$$

Accordingly, with the addition of a 10% allowance for non-response, the total sample size became 365.

For the second objective, which assessed factors associated with maternity waiting home utilization, the sample size was determined using Epi Info version 7.2.5.0 software. The calculation considered the following assumptions: a 95% confidence level, 80% statistical power, and a 1:1 ratio of exposed to unexposed groups. From a previous study conducted in the rural community of Dangur District, the proportion of maternity waiting home utilization among ANC users (exposed group) was taken as 39% (P1), while the proportion among non-ANC users (unexposed group) was 9.7% (P2). After adding a 10% non-response rate, the largest sample size obtained across the exposure categories was used as the final sample size for objective two. Since the sample size obtained for the second objective was less than that of the first, the larger sample size of 365 was used for this study.

Table 1 Determination of sample size for Objective Two

Variables	Confidence interval	Power	P1	P2	Odds ratio	Ratio	Sample size With 10% non-response	Reference
Parity	95%	80	71.1%	22%	6	1:1	57	(27)
ANC	95%	80	39%	9.7%	5.95	1:1	88	(28)

4.6 Sampling technique

By employing simple random sampling, six rural kebeles were selected from a total of 19 kebeles. Data extracted from the health facility delivery register indicated that 650 deliveries occurred in these six kebeles. The calculated sample size was then proportionally allocated to each kebele based on the number of deliveries within one year.

$$n_i = n \times \frac{N_j}{N}$$

N

Where n_i =sample size for selected kebeles.

n =total no of delivery in each kebeles

N_j =total sample size

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

Women who had given birth within the past 12 months were identified from delivery registers at health centers, and the sample size was proportionally allocated to each kebele based on the recorded number of deliveries. After proportional allocation, lists of eligible mothers were generated by computer and selected through simple random sampling using OpenEpi. Based on these name lists, data collectors worked in collaboration with health extension workers to recruit participants.

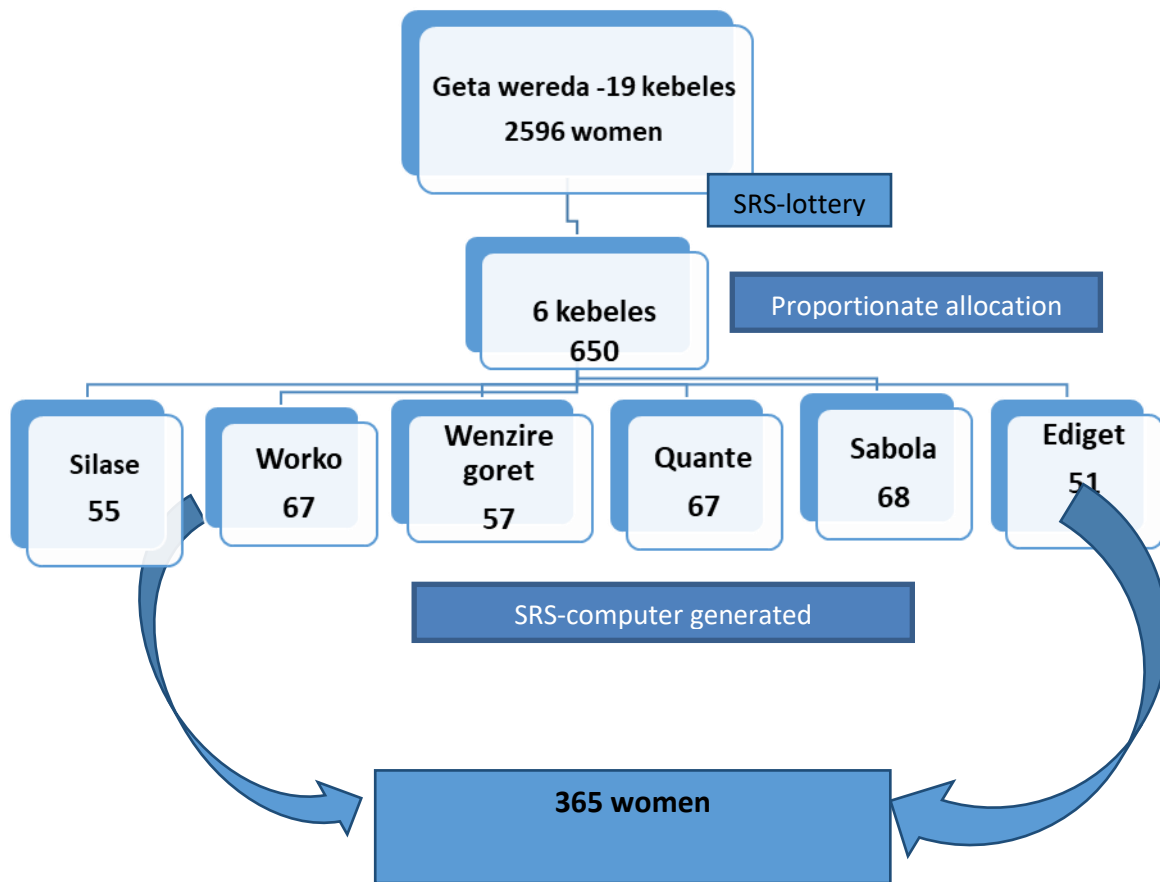


Figure 2 Schematic representation of the sampling procedure followed for study participants, eta district, Central Ethiopia 2025

4.7. Study Variables

4.7.1. Dependent Variable

- Magnitude of Maternity waiting home utilization.

4.7.2 Independent variables

Socio-demographic variables: Age, ethnicity, Religion, Educational status, Availability of means of travel, Occupation, ANC visit, Total children born alive, Number of antenatal care checkups attended, time to travel, monthly income, transportation cost.

Obstetric and gynecological factors; Number of times a woman has given birth, Past medical or pregnancy-related problems, past experience of MWH use, Knowledge of warning signs that indicate health risks.

Maternal related factor; having under five children at home, Length of time the mother remains in the maternity waiting home, stay of assistant in the MWH, Distance of maternal residence to the nearby health facility, Household child caretaker, Awareness of the existence of a maternity waiting home, Period when the caregiver is not at their workplace, Period when the mother is absent from her job, Level of control over decisions.

Facility related factor: Access to meal provision; Availability of traditional ceremony after delivery. Compassionate and considerate examinations by midwives, Kitchen tools, Confidentiality and personal space in maternity waiting homes and delivery rooms.

4.8. Operational Definitions

Maternity waiting home: Accommodation centers situated close to a well-equipped healthcare institution, where expectant mothers reside while waiting to give birth in the adjoining medical facility

Utilization: - Mothers admitted to maternity waiting homes either before labor begins or during postnatal care.

Parity: This refers to the total number of times a woman has given birth, encompassing live births as well as intrauterine deaths and stillbirths.

Distance: - The distance to a government health institution was measured in terms of the time required to walk from home. For the purposes of this study, a travel time greater than one hour on foot was considered significant.

Woman's decision-making power: Women who made decisions either independently or together with their husbands were classified as having decision-making power.

Access to transportation: Access to public transportation services from home to the health facility was considered as availability of transport options enabling mothers to reach healthcare centers

4.9. Data Collection Methods and Instruments

Data were collected through face-to-face interviews using pre-tested structured questionnaires. The tool included sections on sociodemographic characteristics, obstetric history, maternal factors, and facility-related aspects, all designed to measure maternity waiting home (MWH) utilization. The questionnaire was first translated into Amharic and then back-translated into English to ensure consistency and accuracy.

4.10. Data Quality control

A pre-test was conducted on 5% of the sample size in selected kebeles of Gumer district one week prior to the actual data collection. Based on the findings, necessary modifications and amendments to the tool were made. Data were collected by 3 midwives and one other midwife as supervisor who can speak both Amharic and Guragigna.

A one-day training was provided to both data collectors and supervisors by the principal investigator. The training focused on the objectives of the study, data collection procedures, interviewing techniques, methods of administering the questionnaire, and guidance on managing the data collection process. Subsequently, home-to-home face-to-face interviews were conducted at the kebele level using a structured questionnaire.

4.11 Data processing analysis

After verifying the data for completeness and consistency, it was entered into EpiData version 4.2 and subsequently exported to SPSS version 26 for cleaning, coding, and statistical analysis. Attitude knowledge and practice questions internal consistency was checked by reliability test (Cronbach alpha). Descriptive statistics, including frequencies, percentages, means, and standard deviations were employed to summarize and present the findings in tables, and graphs were used to summarize data. The presence of association was expressed using bivariable and multivariate analysis. Variables with a p-value less than 0.25 in the bivariate analysis were included in the multivariate model to adjust for potential confounders. Odds ratios were computed and variables with a p-value less than 0.05 in the multivariable logistic regression analysis were considered significantly associated with maternity waiting home (MWH) utilization. The backward stepwise regression method was applied. Model fitness was assessed using the Hosmer–Lemeshow test, which yielded a value of 1.00, indicating a good fit. Multicollinearity was evaluated using the variance inflation factor (VIF), with values less than 10 considered acceptable and indicative of no multicollinearity problem.

4.12. Ethical considerations

Ethical clearance was obtained from the Institutional Review Board of Wolkite University. An official letter of cooperation was issued to the Geta District Health Office, which subsequently provided letters of cooperation to each health post and kebele (lower administrative units). Prior to data collection, the purpose of the study was explained to participants, and written informed consent was obtained. Participants were assured of their

right to withdraw consent and discontinue participation at any time without prejudice. Confidentiality and privacy were strictly maintained, with all information kept secure and accessible only to the principal investigator and advisor.

4.13. Dissemination of the work

Upon approval of this thesis by the examiners, the findings will be disseminated to relevant organizations and stakeholders. The dissemination plan includes: presenting the results at Wolkite University; submitting the report to the Geta District Health Office; submitting the report to the Geta District Administrative Body; and sharing the report with the Zonal Health Department and the Regional Health Bureau of the Central Region.

Chapter five-Results

5.1 Sociodemographic characteristics

In this study, three hundred sixty-five mothers were interviewed successfully with 100% response rate. Frequent visiting of respondent at the of data collection is the reason for a successful interview

The mean age of the respondents was 32.49(SD±4.487). The majority age groups fall in the category of 25_35. Concerning to marital status, all the mothers were married. The majority of respondents are Gurage by ethnicity (88.5%) followed by Silte (6%) and the rest others were 5.5%

Concerning to educational status, nearly one third of the respondents cant not to read and write1126(34.5%). More than half of the respondents were Muslim in religion. Nearly half of the respondents had a family size of 5 or more and majority of respondents has no access for transportation (64.4%).

Table 2 Sociodemographic characteristics of study participants in Geta District, Gurage Zone, Central Ethiopia, 2025.

S.no	Variable	Category	Frequency	
			Number	Percent
1.	Age	18_25	31	8.5
		25_35	250	68.5
		>35	84	23.0
		Total	365	100.0
2.	Ethnicity	Gurage	323	88.5
		Silte	22	6.0
		Others	20	5.5
		Total	365	100.0
3.	Religion	Orthodox	131	35.9
		Muslim	210	57.5
		Protestant	23	6.3
		catholic	1	.3
		Total	365	100.0
4.	Maternal education	not to read and write	126	34.5
		Only read and write	107	29.3
		(grade1-8)	68	18.6
		(grade9-10)	49	13.4
		(grad11-12)	15	4.1
		Total	365	100.

5.	Husband's educational status	not to read and write	142	38.9
		Only read and write	130	35.6
		(grade1-8)	45	12.3
		(grade9-10)	12	3.3
		(grad11-12)	15	4.1
		College and above	21	5.8
		Total	365	100.0
6.	Maternal employment status	Housewife	230	63.0
		merchant	74	20.3
		Private business	32	8.8
		Gov't employee	29	7.9
		Total	365	100.0
7.	Occupation of the husband	merchant	64	17.5
		farmer	163	44.7
		government employer	65	17.8
		daily laborer	73	20.0
		Total	365	100.0
8	Family size	1 up to 4	173	47.4
		5 and above	192	52.6
		Total	365	100.0
9	Monthly income	less than 1000	166	45.5
		1000 up to 5000	104	28.5
		greater than 5000	95	26.0
		Total	365	100.0
10	Marital status	Married	365	100.0
11.	Transport access to health facility	accessible	130	35.6
		not accessible	235	64.4
		Total	365	100.0
12	Transport to and from MWH	Available	114	31.2
		not available	251	68.8
		Total	635	100
13	Distance from health facility in minute	<=60min	334	91.5
		>60min	31	8.5
		Total	365	100.0

N.b. Other ethnicities were Hadiya, Amhara, Oromo

5.2 Obstetrics and gynecologic factors

In this study, nearly two third 66.6% of women had ANC follow-up in current pregnancy with the majority (23.8%) had more than 5 contacts. Nearly 3/4th of respondents was multigravida. Almost all the respondents had heard about danger signs but only 15% experience at least one danger sign in their life. more than 95% had given birth at the health facility in last pregnancy. More than 85% women had information about maternity waiting home while the rest others didn't.

Table 3 Obstetrics and gynecologic factors for the study participants in Geta district, Gurage zone central ethiopian,2025.

S. NO	VARIABLE	CATEGORY	FREQUENCY	
			Number	%
1.	ANC follow up for the last pregnancy	Yes	243	66.6
		No	122	33.4
		Total	365	100.0
2.	ANC frequency	3	52	14.2
		4	87	23.8
		5	86	23.6
		6-8	140	38.3
		Total	365	100.0
3.	Gr-avidity	primigravida	88	24.1
		multigravida	277	75.9
		Total	365	100.0
4.	Which danger sign the mother had know during pregnancy	Vaginal bleeding	179	49.0
		Vaginal flush of fluid	101	27.7
		Severe headache	6	1.6
		Blurred vision	24	6.6
		High-grade Fever	21	5.8
		Abdominal pain/pre-term contractions	16	4.4
		Decreased fetal movement	12	3.3
		Edema/ body	6	1.6
Total	365	100.0		
5.	experience of danger sign for your most recent pregnancy	yes	55	15.1
		no	310	84.9
		Total	365	100.0

6.	Place of delivery for the last pregnancy	health facility	211	57.8	
		Out of health facility	154	42.2	
		Total	365	100.0	
7.	Mother knew that the health facility had a maternity waiting home before	yes	315	86.3	
		no	50	13.7	
		Total	365	100.0	
8	Source of information about the presence of MWH	Health extension worker	222	60.8	
		Women development union	71	19.5	
		Neighbors	12	3.3	
		health professionals	10	2.7	
		99.00	50	13.7	
		Total	365	100.0	

5.3 Health facility-related factors

In this particular study, the majority (86%) of food costs were covered by the facility itself, while only a few (4%) were covered by the clients themselves. Almost all of the respondents had no possibility to bring self-cooking utensils but had access for bringing attendants. Nearly 1|3rd Respondents had private bedrooms. Nearly one-third of the respondents had reported Availability of midwife checks. Almost all of them had no separate toilet room. Only as few as 11% of respondents had recreational materials, while the rest had none. Of all the respondents, most attended the maternity waiting home due to fear of complications

Table 4 Health facility-related associated factors among women who gave birth within 12 months prior to survey in Geta district, Gurage zone central Ethiopian, 2025.

S. no	Variable	Category	Frequency	
			Number	Percent
1.	Food service for MWH	Affordable	16	4.4
		not affordable	35	9.6
		The facility covers all the costs for food	314	86.0
		Total	365	100.0
2.	Bringing self-cooking utensils on MWH	Possible	1	.3
		Impossible	47	12.9
		The MWH have enough	317	86.8

		cooking utensils		
		Total	365	100.0
3	Bringing an attendant 2 weeks before the delivery date	Possible	275	75.3
		Impossible	90	24.7
		Total	365	100.0
4.	Children are taken care of by other family members	Possible	211	57.8
		Possible	211	57.8
		Impossible	154	42.2
5.	The mother be being away from work	Possible	121	33.2
		Impossible	244	66.8
		Total	365	100.0
6.	Attendant being away from work / obligations	Possible	23	6.3
		Impossible	342	93.7
		Total	365	100.0
7.	Bringing a child to MWH together with mother	Possible	27	7.4
		Impossible	338	92.6
		Total	365	100.0
8	private bed and bathroom	Available	121	33.2
		not available	10	2.7
9	Availability of midwife checks	Available	120	32.9
		not available	11	3.0
		Total	131	35
10	frequency of midwife check	once a day	8	2.2
		once every two days	44	12.1
		twice a week	23	6.3
		frequently	56	15.3
11	Recreational Materials TV/Radio	Available	42	11.5
		not available	89	24.4
12	Blankets, bed mattresses, ITN and other Materials	Available	124	34.0
		not available	7	1.9
13	Cooking utensils on MWH	Available	127	34.8
		not available	4	1.1
		Total	131	35.9
14	Cooking area/kitchen	Available	122	33.4
		not available	9	2.5
		Total	131	35.9
15	Adequate food and clean water	Available	118	32.3
		not available	13	3.6
		Total	131	35.9
16	Traditional ceremony after delivery	Available	73	20.0
		not available	58	15.9
17	Separate toilets for MWH	Available	130	35.6
		not available	1	.3
		Total	131	35.9

18	Waiting area for other families	Available	20	5.
		not available	111	30.4
		Total	131	35.4
19	Is the food provided for waiting mother enough	Yes	63	17.3
		No	68	18.6
		Total	131	35.9
20	Frequency of meal	Twice	44	12.1
		three times	70	19.2
		four times	17	4.7
		Total	131	35.9
21	Ethics of health professional	Good	89	24.4
		very good	32	8.8
		Bad	10	2.7
		Total	131	35.9
22	Children could got care by other family	Possible	211	57.8
		Impossible	154	42.2
23	The mother be being away from work	Possible	121	33.2
		Impossible	244	66.8
		Total	365	100.0
24	Attendant being away from work	Possible	23	6.3
		Impossible	342	93.7
25	Bringing a child to MWH together with mother	Possible	27	7.4
		Impossible	338	92.6
		Total	365	100.0
26	Who decided to use maternity waiting home	my self	40	11.0
		Husband	22	6.0
		Jointly	26	7.1
		health worker	43	11.8
27	The reasons for seeking care at a Maternity Waiting Home	Good pregnancy outcome	42	11.5
		Fear of complications	76	20.8
		Referral from a health facility	13	3.6
		Total	131	35.9

5.4 Magnitude of maternity waiting home utilization

The magnitude of maternity waiting home (MWH) utilization was determined by asking mothers whether they had used the facility before the onset of labor. Accordingly, out of the total study participants, 131 mothers (36%) utilized the maternity waiting home, while 234 mothers (64%) did not. The overall utilization rate was 36% (95% CI: 31.0–40.8), as illustrated in the figure below

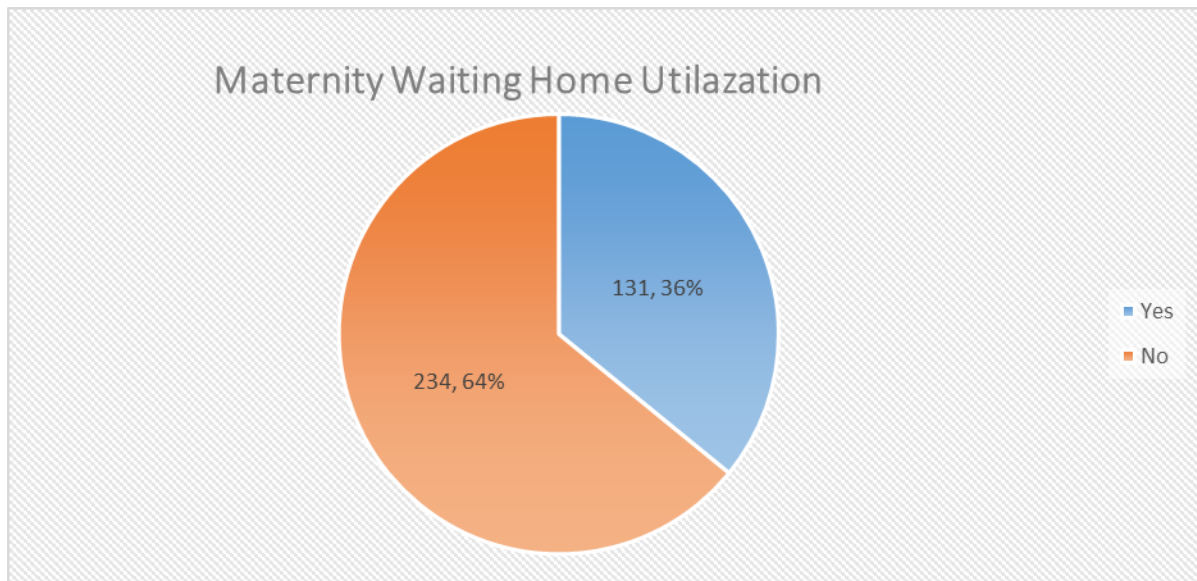


Figure 3. Maternity home utilization among the mothers in Geta District, Gurage Zone, Central Ethiopia, 2025

5.5 Factors associated with maternity waiting home utilization

Binary logistic regression was applied to assess the association between each independent variable and the outcome variable maternity waiting home (MWH) utilization.

At the bi-variable analysis stage, the following variables showed significant associations with MWH utilization: maternal age, maternal education, family size of five husband education, mother occupation, husband occupation, family size, monthly income, transport access, distance from health facility, ANC follow up, gr-avidity, experience of danger sign, place of delivery, child care taken by other family members. were made candidate to multi-variable logistic regression.

The multi-variable analysis revealed that Mothers whose age interval 25_35 more likely to utilize MWH as compared with other category with 95%CI AOR 20 (3.765,107) and significant level of 0.000.

mothers who had antenatal care (ANC) follow-up during their last pregnancy had eight times higher odds of utilizing MWHs compared with their counterparts (AOR = 9.001, 95% CI: 2.407,33.662, $p = 0.001$).

Mothers who had no access to transportation facilities were seven times more likely to utilize MWHs than those with access (AOR =57, 95% CI: 14.607, 225.608, $p = 0.000$).

As compared with, primigravida, multigravida had higher odds of utilizing maternity waiting home i.e., 7.728 times higher odds with 95% CI of (1.692,35.293).

Mothers whose occupation merchants were more likely to utilize MWHs compared with those others AOR= 12.787, 95% CI: (3.193,51.207)

Mothers whose husband farmers are more likely to use MWH With AOR of 22.9 with 95% CI of (4.912,106.767) and significant level of significance 0.000. These variables were identified as independent predictors of maternity waiting home utilization in this study, as shown in the table below

Table 5 Bivariate and multivariate logistic regression for maternity waiting home utilization and associated factors among women who gave birth within 12 months prior to survey in Geta district, Gurage zone central Ethiopian,2025.

Variable	Category	Maternity home utilization		COR (95%CI)		AOR (95%CI)	
		Yes	No		P value		P value
Age	18_25	23	8	1		1	
	25_35	160	90	0.618(0.266_1.439)	0.265	20.1(3.765,107.415)	.000
	>35	51	33	0.538(0.215_1.343)	0.184	1.571(0.307,8.036)	0.588
Educational status of Mother	not to read and write	23	107	1	1	1	1
	Only read and write	38	84	2(1.081,5.005)	0.031	0.283(0.081,.995)	0.049
	(grade1-8)	13	55	1.105(.533,2.290)	0.788	0.129(0.016,1.051)	0.056
	(grade9-10)	1	44	.118(.050,.281)	0.050	2.885(0.639,13.016)	0.168
Husband educational status	not to read and write	42	100	1	1	1	1
	Only read and write	110	20	13(4.564,37.603)	.000	0.391(0.121,1.261)	0.116
	(grade1-8)	16	24	1.598(.634,4.030)	0.321	1.635(0.227,11.789)	0.626
	(grade9-10)	3	14	.447(.153,1.305)	0.141	1.635(0.227,11.789)	0.626
	(11-12)	1	14	0.100,(.011,.920)	0.042	1.527(0.212,11.014)	0.674
	Higher education	1	20	.169(.030,.943)	0.043	0.415(.087,1.971)	0.269
Mother occupation	Housewife	100	122	1	1	1	1
	Merchant	33	32	1.229(.701,2.154)	0.472	12.787(3.193,51.207)	0.000

	Gov't employee	6	14	.554(.263,1.165)	0.120	1.293(0.316,5.29)	0.721
occupation of the husband	Merchant	29	31	1	1	1	1
	Farmer	162	74	2.354(1.106,5.011)	0.026	22.901(4.912,106.767)	.000
	government employer	16	14	1.193(.676,2.106)	0.542	1.487(0.291,7.609)	0.634
	daily laborer	16	23	.769(.391,1.512)	0.446	1.003(0.292,3.443)	0.997
number of the family	1 up to 4	103	70	1	1	1	1
	5 and above	131	61	1.459(0.95, 2.243)	0.084	0.522(0.207,1.317)	0.168
Estimated Monthly income	less than 1000	169	119	1	1	1	1
	1000 up to 5000	50	11	3(1.784,5.124)	.000	.999(0.244,4.087)	0.999
	greater than 5000	12	4	2(1.343, 4.240)	0.003	0.331(0.089,1.233)	0.999
transport access	Accessible	43	87	1	1	1	1
	not accessible	199	36	11(6.740,19.023)	.000	57(14.607,225.608)	.000
Distance from the health facility	<=60min	206	128	1	1	1	1
	>60min	28	3	5.8(1.728,19.466)	.004	5.996(1.001,35.924)	0.050
ANC follow-up	Yes	202	123	5.7(1.728,19.466)	0.004	9.001(2.407,33.662)	.001
	No	9	31	1	1	1	1
Gr-avidity	Primigravida	41	47	1	1	1	1
	Multigravida	193	84	2.634(1.612,4.304)	.000	7.728(1.692,35.293)	.008
experience of danger sign	Yes	26	29	1	1	1	1
	No	208	102	2.275(1.274,4.062)	.000	3.191(0.855,11.902)	0.084
Place of delivery	Health facility	119	64	1.769(1.147,2.728)	0.01	0.302(.058,1.574)	0.155
	Out of health facility	95	87	1	1	1	1

N. B AOR= Adjusted odds ratio
COR= Crude odds ratio

Chapter six- Discussion

The objective of this study was to determine the magnitude of maternity waiting home (MWH) utilization and to identify factors associated with its use among women who delivered within the 12 months preceding the survey in Geta District, Gurage Zone, Central Ethiopia. Accordingly, the magnitude of MWH utilization was found to be **36%** (95% CI: 31.0–40.8). This result is comparable with the findings of a study conducted on Utilization and Determinants of Maternity Waiting Homes among Pastoralist Mothers in Dire District, Southern Ethiopia: A Mixed-Methods Study (2024) which was 35.2% (95% CI: 30.9%, 39.5%) (26). The similarity might be attributed to comparable study settings and uniform national health policy. Thus, the comparable magnitude of MWH use across these contrasting settings underscores the overriding influence of health system interventions and structural determinants, which appear to outweigh ecological and sociocultural distinctions.

Would you like me to also help you expand this into multiple discussion sub-sections (e.g., health system factors, structural determinants, sociocultural adaptation) so it reads more like a journal article discussion rather than a single paragraph?

On the other hand, the present finding is considerably lower than the result of a study conducted in Basona Worena District, Ethiopia, which reported an MWH utilization rate of **56.7%** (27). This discrepancy might be explained by differences in geographic context, awareness levels, and health professional efforts toward community sensitization in those areas. Variation in sample size may also contribute to the observed difference. Conversely, the utilization rate in this study was higher than that reported in Digelu and Tijo District, Arsi Zone, Oromia, Ethiopia (2022) (21). This variation might be due to differences in social background, culture, economic status, sample size, and study period.

Regarding maternal age, our study found that mothers in the 25-35 age interval were significantly more likely to utilize Maternity Waiting Homes compared to other age categories [AOR = 20.1, 95% CI: (3.765, 107.415), $p < 0.001$]. This robust association suggests a convergence of factors within this demographic. Firstly, this age group often correlates with a period of enhanced economic stability, either through the women's own employment or their husband's established careers. Such increased financial capacity directly reduces common barriers to MWH utilization, such as the ability to afford transportation, cover potential MWH fees, or absorb the temporary loss of income associated with a stay at an MWH.

Secondly, with greater life and potentially previous birth experiences, women in this age group often possess higher health literacy and a more nuanced understanding of the risks associated with childbirth and the benefits of skilled care. This experience can also translate into increased autonomy in household health decision-making, allowing them to prioritize MWH utilization over traditional practices or the wishes of family members, particularly compared to younger, less experienced mothers. Furthermore, community health programs and health workers may strategically target women aged 25-35 for MWH promotion. This approach recognizes their potential as 'early adopters' who can influence peers and serve as advocates for safe delivery practices within their communities. In essence, women within this age range often combine the invaluable experience of previous pregnancies (leading to a heightened awareness of risks), improved financial capacity, greater personal autonomy, and a strong intrinsic motivation for positive maternal and child health outcomes, all of which synergistic make MWH utilization a highly appealing and feasible choice. This finding aligns with similar studies conducted in other regions of Ethiopia, such as Basona Worena District (AOR=0.22,95% CI:0.08,0.65) (27) and Dabat District, Northwest Ethiopia 2022 (17). The consistency across these studies may be attributable to comparable sociocultural contexts and health policy implementations influencing MWH uptake across these areas.

Mothers who had no access to transportation facilities were fifty-seven times more likely to utilize MWHs compared with those who had access (AOR = 57, 95% CI: (14.607, 225.608), $p = 0.001$). This could be because those who had transportation may consider their transportation access and may bring the mother at the onset of labor. Those who didn't have transportation may fear the absence of transportation at the time of onset of labor and fear the urgency of labor complication and may intended to use the maternity waiting home before the onset of labor. This finding contradicts with the study conducted in Dangur District, Northwestern Ethiopia (2024) (8), which reported that women with access to transportation services had three times higher odds of utilizing MWHs. The discrepancy might be may be due to difference in demographics characteristics, study time (2024 vs. 2025).

Women who had antenatal care (ANC) follow-up during their last pregnancy are nine times more likely to utilize MWHs compared with their counterparts (AOR = 9.001 95% CI: (2.407, 33.662), $p = .001$). This finding is consistent with the study conducted in Dangur District (8). The association could be explained by the fact that ANC visits provide opportunities for counseling and education from health workers regarding the benefits of MWHs and institutional delivery. Proper counseling during ANC visits encourages mothers

to utilize MWHs, which in turn contributes to reducing obstetric complications and maternal and fetal mortality. However, this result contrasts with the study conducted in Digelu and Tijo District, Arsi Zone, Oromia, Ethiopia (2022) (21) where ANC follow-up was not significantly associated with MWH utilization. The variation might be due to methodological differences, sample size, study duration, or variations in demographics, obstetric, and cultural factors, as well as differences in accessibility of health facilities and health-seeking behaviors.

Compared with primigravida, multigravidas were nearly eight times more likely to utilize a maternity waiting home (odds ratio = 7.728, 95% CI: 1.692–35.293, $p=0.049$). This increased likelihood could stem from several factors. Firstly, multigravidas have previously undergone labor and delivery experiences. If these prior deliveries involved complications such as prolonged labor, hemorrhaging, difficulty accessing healthcare facilities during emergencies, or adverse outcomes like stillbirths, women would likely recognize the importance of proximity to medical care. Direct exposure to such challenges serves as a powerful motivator for using maternity waiting home (MWH) in future pregnancies to prevent recurrence of similar issues. Additionally, even when no serious complications arise, multigravidas frequently understand that labor tends to proceed faster in subsequent pregnancies. Consequently, choosing to reside at an MWH ensures closer access to essential services, minimizing the chance of delivering prematurely outside a hospital setting. Furthermore, multigravidas typically establish connections with community health workers or facility personnel capable of providing informed guidance regarding MWH usage tailored to individual histories. Another factor influencing this decision is family dynamics. Many multigravidas already have multiple dependents requiring attention. By opting for an MWH, these mothers aim to alleviate caregiver responsibilities while focusing exclusively on their impending delivery. An MWH provides a controlled and secure environment conducive to preparing for childbirth, freeing parents from simultaneous child-rearing duties and potential crises arising within domestic settings. These findings align with those reported in studies conducted in the Gedeo Zone, Southern Ethiopia (23), and west Arisi zone (28) where participants with three or more pregnancies demonstrated significantly greater utilization rates of maternity waiting homes.

Mothers working as merchants were significantly more likely to utilize Maternity Waiting Homes (MWHs) compared to those engaged in other occupations, with an Adjusted Odds

Ratio (AOR) of 12.787 (95% Confidence Interval: 3.193–51.207). This might be due to Merchants, by nature of their occupation, often have higher and more stable incomes compared to other mothers (e.g., daily wage labourers, subsistence farmers). This financial stability allows them to cover potential MWH fees, transportation costs to and from the MWH, and other incidental expenses during their stay. Running a business requires planning and delegation. Merchants might be more adept at planning for their temporary absence, making arrangements to ensure their business can continue to function, even if at a reduced capacity. Merchants, especially those who have established businesses through trading, might have better-developed social support networks within their community and extended family. Merchants interact with a wide range of people (customers, suppliers, other merchants) regularly. This extensive social network provides more opportunities to receive information about MWHs, their benefits and their location. They might hear recommendations or learn about services through casual conversations.

Women married to farmers were significantly more inclined to utilize Maternity Waiting Homes (MWHs), with an Adjusted Odds Ratio (AOR) of 22.9 (95% Confidence Interval: 4.912–106.767) and a highly statistically significant result ($p < 0.001$). This trend may reflect the unique circumstances faced by agricultural families living predominantly in rural regions characterized by geographic isolation from adequately equipped health facilities. The possible reason to Increased might be: Farmers commonly inhabit remote, sparsely populated zones distant from hospitals or clinics staffed by trained professionals. MWHs address this challenge by offering convenient pre-delivery lodging adjacent to healthcare institutions, thereby mitigating hazardous last-minute transports upon onset of labor.: Lack of personal automobiles coupled with restricted availability of public transportation options further complicates timely arrival at birthing units. Private hire cars are costly and rarely accessible, particularly during off-hours or emergent situations. Staying at an MWH eliminates reliance on unpredictable emergency transportation since it is either walkable or linked directly via dedicated shuttle systems. MWH initiatives tend to target precisely these under served agrarian populations, leveraging outreach campaigns executed by Community Health Workers (CHWs) to disseminate awareness among farming families regarding the advantages offered by these residential hubs.

Chapter seven- Limitations and strengths of the study

7.1 Strengths

This study collected primary data directly from women who had given birth, through face-to-face interviews, which enhances the accuracy and relevance of the findings compared to studies relying on secondary data. Moreover, being a community-based study, it allowed mothers to freely express their views and experiences regarding maternity waiting homes (MWHs), thereby improving the credibility and validity of the results.

7.2 Limitations

Given the cross-sectional study design, establishing a cause-and-effect relationship between variables was not possible, commonly referred to as the “chicken-and-egg dilemma.” Furthermore, the study relied on self-reported information, which may be subject to recall bias or social desirability bias, as respondents could have provided responses, they considered favorable. The absence of a clear definition of maternity waiting home (MWH) services and the lack of an exact specification of the target population. Thereby limiting the precision and generalizability of the findings.

Chapter eight- Conclusions and Recommendations

8.1 Conclusions

The overall utilization of maternity waiting homes in Geta District was 36%, which is relatively low compared to findings from other studies conducted in similar contexts across Ethiopia. Significant predictors of MWH utilization included antenatal care (ANC) follow-up, mothers age , multi-gravidity, no access to transportation and Husband and mothers occupation. Therefore, improving MWH utilization may require enhancing ANC and educating increase service uptake to enable women to utilize maternity services more effectively.

8.2 Recommendations

For Policymakers

- ✓ Strengthen policies and programs that promote ANC attendance and integrate counseling on the benefits of maternity waiting homes into routine maternal health services.
- ✓ Promote economic empowerment programs that increase household income, enabling women to afford costs related to MWH use.
- ✓ Encourage health facilities to create community awareness campaigns emphasizing the importance and benefits of MWH utilization.

For the Geta District Health Office

- ✓ Motivate and support health extension workers and healthcare providers to counsel women during ANC visits about the benefits and use of maternity waiting homes.
- ✓ Ensure that counseling services are consistent, comprehensive, and culturally sensitive, emphasizing regular prenatal care, early referral, and safe delivery practices.

For Researchers

- ✓ Future research should include longitudinal or mixed-method studies to better establish causal relationships between determinants and MWH utilization.
- ✓ Conduct qualitative studies to explore women's perceptions, cultural influences, and barriers to MWH utilization in greater depth

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ANNEXS

Annex1: Participant information sheet and informed consent form

Good morning/afternoon dear participant! My name is _____. I am working as a data collector for the study being conducted in this kebele on magnitude of maternity waiting home utilization and associated factors among women who gave birth 12 months before the survey in Geta district by CheruBirega, who is studying for his master's degree at Wolkite University, college of Medicine and Health sciences. I kindly request you to lend me your attention to explain about the study and being you selected as the study participant.

The purpose of the study is to assess the magnitude of maternity waiting home utilization among women who give birth before 12 months in geta district. Findings from the study can be used by the Woreda administration health office to design and develop locally appropriate plan to tackle problems related with maternity waiting home utilization. This may take 30-40 minutes. All the information that you are going to provide me will remain confidential and you don't need to mention your name. For this reason, I kindly request you to give me your sincere and truthful answer.

All of your participation is completely on voluntary bases and you have the right to refuse from participation. Participation or non-participation and refusal to answer questions will have no effect on your life. If you have further questions or would like to know the results of this study, please feel free to contact the principal investigator; with the following address.

Principal investigator: Cheru Birega (BSc)

Mobile phone : +251-913-58-88-99

E-mail : cherubirega@gmail.com

Consent Form English Version

I have read all the process and the objective of the study and I have understood the same as written that includes informed about the purpose, advantage, and disadvantage of this study magnitude of maternity waiting home utilization and associated factors among child bearing women in geta district. I also understood that the research imposes no risk and no composition would be provided to me. I have been told that if I feel discomfort to respond to any of the question, I feel free to drop it any time I wish to do so. I have understood the information given and the participation is completely voluntary based.

I have been told that my answers to the questions will not be given to anyone and not expect to write my name. Now I am giving my consent to participate in the study voluntarily.

Could I have your permission to continue?

1. Yes _____ 2. No _____, Stop and thank the respondent.

Data collector: Name _____ Signature _____ Date _____

Annex 2: Questionnaire; English version

WOLKITE UNIVERSITY COLEDGE OF MEDICINE DEPARTMENT OF PUBLIC HEALTH

Questionnaire designed to assess the magnitude of maternity waiting home utilization and associated factors among child bearing women who gave birth in 12 months before survey in geta woreda, Gurage zone, central Ethiopian region, 2025.

Instruction: This questionnaire is designed for the purpose of face-to-face interview to collect data from mothers who gave birth within 12 months participating in this study. It will have three major sections. First section will deal with socio demographic characteristics of participants while second section contains questions assessing the obstetric history and gynecological factors, and part three assesses maternal related factors, also part four assesses experience of maternity waiting home utilization, finally the fifth part concerns about facility related factors

Note: This questionnaire has to be filled only by the interviewer once informed consent is obtained from respondents. Please circle the numbers that contain answers you received.

Questionnaire ID No	Questionnaire ID No _____
Name of keble	_____
Date of Interview	___/___/___
Time interview started	___:___
Time interview ended	___:___
Interviewer	Name _____signature _____
Checked by Supervisor	Name _____ Signature _____ Date ___/___/___
Result code	001. Completed 002. Discontinued interview 003. Refused Reason for refusal-----

S.NO	Question	Response category	response	Remark
PART1	SOCIO DEMOGRAPHIC			
101	Age in year	-----		
102	What is your marital status	1)Married		
		2)Single		
		3)Widowed		
		4)Divorced		
		5)Other		
103	Ethnicity	1)Gurage		
		2) Silte		
		3)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(grade1-8)		
		4)Secondary education (grade9-10)		
		5)Preparatory education (grade 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(grade1-8)		
		4)Secondary education(grade9-10)		
		5)Preparatory education(grad11-12)		

		6)Higher education		
107	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		
		4. Other		
113	How long does it take you to travel to the nearest health facility?	1. Less than 60minutes		
		2.60 minutes to 2 hours		
		3.2 hour to 2 ½ hour		
		4.Morethan 3 hours		
114	What long kilometers it takes to get health center from your home	Distance in km-----		

PART II	OBSTATRIC AND GYNECOLOGIC FACTOR			
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)1 time 2)2 times 3)3 times 4)4 times 4)More than four times 5)Don't know?		
203	How many pregnancies do you have experienced before?	1. primigravida 2. multigravida		Ifans-1-go to Q 6
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	1 Yes 2 No	
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 -----		
PART I II	MATERNAL RELATEDFACTORS			
301	Did you know that health facility had a maternity waiting home before?	1)yes 2)no 3doesn't know	If no go to Q3	
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 3) Impossible		
307	Children are taken care of by other family members / Community	1) Possible 2) Impossible		
308	Being away from your work	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		

PART Iv	EXPERIENCE OF MATERNITY WAITING HOME UTILIZATION			
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 utilize? Probe circle all mentioned.	1)Distance		
		2)Lack Cultural appropriate care		
		3)lacks 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 the Maternity Waiting Home?	_____ (Number of month)		
404	How many days have you stayed in MWH?	1)7daysand more		
		2)Lessthan7days		
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 waiting home A maternity		
		4)referral from a health facility or a Health worker		
		5)recommended by family/		
		6)other -----		
PARV	FACILITY RELATED FACTORS			
501	Privacy in bed, in toilet,	1)Yes		
		2)No		
502	Availability of midwife checks	1)Yes		
		2) No		
503	Availability of food, clean Water, cooking unicells	1)Yes		
		1)No		
504	Availability of cooking area	1)Yes		
		2)No		
505	Availability of Recreational Materials TV/Radio	1)Yes		
		2)No		
506	Availability of blankets, bed mattress, ITN and other Materials	1)Yes		
		2)No		
507	Availability of traditional ceremony after delivery	1)Yes		
		2)No		
508	Availability of toilets, bathing	1)Yes		
		2)No		
509	Accessibility of electric power	1)Yes		
		2)No		
510	Availability of medical Equipment and medicine.	1)Yes		
		2)No		
511	Extra space for the family to stay with you at MWH	1)Yes		
		2)No		

በወልቂጤ ዩኒቨርሲቲ በጤና ኢንስቲትዩት

በህብረተሰብ ጤና ትምህርት ክፍል የተዘጋጀ የ2ተኛ ዲግሪ የተማሪ ችፍሩ ቢረጋ የመመረቅ ድህረ ምረቃ የተዘጋጀ መጠይቅ

የጽሁፉ ርዕስ፤ በአንድ አመት ውስጥ በጌታ ወረዳ ከወለዱ እናቶች የእናቶች ማቆያ ቤት የተጠቀሙና ተግዳሮቶቹ በሚል በጌታ ወረዳ ጉራጌ ዞን በማእከላዊ ኢትዮጵያ ክልል በሚል

ጤና ይስጥልኝ! ስሜ _____ ይባላል እኔ በእናቶች ማቆያ አጠቃቀምና ተግዳሮቶቹ በሚል በጌታ ወረዳ በሚጠናው የመመረቂያ ድህረ ምረቃ 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 ያለ መረጃዎችን አንጠቀምም፤፤ የምንጠይቃቸው ቃለ-መጠይቆችም የእናቶችን የማቆያ ቤት አጠቃቀም ለማሻሻል ጉልህ ሚና ስለሚጫወቱባቸው 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		
	ክፍል1:-ማህበራዊ እና ስነ ህዝባዊ ጥያቄዎችን በተመለከተ			
101	እድሜ	-----		
102	የጋብቻ ሁኔታዎ ምንድን ነው?	1.ያገባች 2.ያላገባች 3.ባሉዋ የሞተባት 4.አግብታ የፈታች		
103	ብሄረዎ ምን ነው?	1. ጉራጌ ስልጤ 3. ሌላ (ይገለፅ)-----		
104	የምን ሃይማኖት ተከታይ ነዎት?	1. ኦርቶዶክስ		

		2. እስልምና		
		3. ፕሮቴስታንት		
		4.ሌላ (ይገለፅ)-----		
105	የትምህርት ደረጃዎ እስከ ምን ድረስ ነው?	1. ማንበብና መጻፍ አልቻልም		
		2. ማንበብና መጻፍ ብቻ እችላለሁ		
		3.የመጀመሪያ ደረጃ ት/ትአጠናቅቄያለሁ		
		4.የሁለተኛ ደረጃ ት/ት እና ከዚያ በላይ ተምሪያለሁ		
		5. ከፍተኛ ትምህርት ደረጃ		
106	የባለቤትነት የትምህርት ደረጃ	1. ማንበብና መጻፍ አይችልም		
		2. ማንበብና መጻፍ ብቻ ይችላለሁ		
		3. የመጀመሪያ ደረጃ ት/ት አጠናቅቋል		
		4.የሁለተኛ ደረጃ ት/ት እና ከዚያ በላይ		
		5. ከፍተኛ ትምህርት ደረጃ		
107	ስራዎ ምንድን ነው?	1. የቤት እመቤት		
		2. ነጋዴ		
		3. ግልስራ		
		4. መንግስት ሰራተኛ		
		5. የቀን ሰራተኛ		
		6. ሌላ (ይገለፅ)-----		
108	የባለቤቶቻዎ 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.ተደራሽነው		
		2.ተደራሽአይደለም		
112	የትኛውን የትራንስፖርት አይነትነው የምትጠቀሙት	1.በእግር		
		2.በቅሎ/አህያ		
		3. በአንቡላንስ		
		4. ሌላ ካለ ይገለጽ		
113	እቤትዎ ከጤና ተቋም በምን ያክል ይርቃል	1. ከ60 ደቂቃ በታች		
		2. ከ60 ደቂቃ እስከ 2 ሰዓት		
		3. ከሰዓትእስከ 3 ሰዓት		
		4. ከ3 ሰዓት በላይ		
114	የጤና ተቋሙ ከቤተዎ በምን ያክል ኪሎ ሜትር ይርቃል	ርቀት በኪሎ ሜትር-----		

	ክፍል 2፣ከእርግዝና እና ወሊድ ጋር የተያያዙ ጥያቄዎች		
201	የቅድመ ወሊድ አገልግሎት ተጠቅመሽ ነበር	1 አዎ 2አይደለም	
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?	1.ከማህጽን የደም መፍሰስ 2.ከማህጽን ፈሳሽ መፍሰስ 3.ከፍተኛ ራስምታት 4.የአይን ብዥታ 5.ትኩሳት 6.የሆድህመም 7.የጽንሰ እንቅስቃሴ መቀነስ, 8.የሰውነት እብጠት ሌላካለይገለጽ -----	
205	ከእርግዝና ጋር የተያያዙ አደገናኛ ምልክቶች ታይቶ ያውቃሉ ወይም አጋጥሞ ያውቃሉ	1. አዎ 2. አይደለም	
206	የአሁኑን ልጅ የት ነዎ የወለዱት	1. በጤና ተቀዋም 2. ወደ ጤና ተቀዋም አየሄድኩን በመንገድ 3.በጤት ውስጥ 4.ሌላ ካለ ይገለጹ-----	
207	ከጤና ተቋም ውጭ ለወለዱ እናቶች ብቻ ለምንድን ነው ልጅሽን ከጤና ተቋም ያልወለድሽው? ከአንድ በላይ መልስ ይቻላል	1) የጤና ተቋም ርቀት ስላለው 2) ባህላዊ ስርዓት ባለመኖሩ 3) ባለማወቅ 4) አስፈላጊነቱን አለማሰብ 5) የትራንስፖርት እጥረት 6) ፍቃድ ያለማግኘት 7) የአገልግሎት ጥራት ስጋት 8) የጤና ባለሙያዎች አመለካከት ስጋት 9) ወንዶች ባለሙያዎች እንዳያዩኝ ስጋት 10) ልምድ አዋላጆች ስላሉ	
	ክፍል 3፣ከእናቶች ጋር የተያያዙ ችግሮች		

301	የጤና ጣቢያው የእናቶች ማቆያ ቤት ያለው መሆኑን ታውቁ ነበር?	1. አዎ 2. አላውቅም	አዎ ከሆነ ወደ ተራ ቁጥር 2
302	መረጃውን ከየት አገኙት	1. ከጤና ኤክስቴንሽን ሰራተኞች 2. ከጤና ልማት ሰራዊት አባላት 3. ከጎሮ ቤቶች 4. ከጤና ጣቢያው 5. ሌላ ካለም ይገለጽ	
303	ከቤት እስከ ጤና ጣቢያ ትራንስፖርት	1) ይገኛል 2) አይገኝም	
304	በምትቆይበት ጊዜ ለምግብ/ለቀለብ ያለው የገንዘብ ወጭ	1) አቅሜ ይፈቅድልኛል 2) አቅሜ አይፈቅድልኝም	
305	በምትቆይበት ጊዜ ለምግብ ማብሰያ የሚሆኑ የራስሽን እቃዎች ይዞ ማምጣት	1) የሚቻል 2) የማይቻል	
306	ለሁለት ሳምንትና ከዚያ በላይ ለሚያክል ጊዜ አብሮ በማረፊያ ቤቱ በመሆን ሊያስታምምሽ የሚችል ሰው ማግኘት	1) የሚቻል 2) የማይቻል	
307	አንች በማረፊያ ቤቱ በምትቆይበት ጊዜ ቤትሽ ልጆችሽን የሚንከባከብ ቤተሰብ ወይም ዘመድ ማግኘት	1) የሚቻል 2) የማይቻል	
308	ለረጅም ጊዜ ከስራሽ መራቅ (ከቤት ውስጥ ስራ ውጭ)	1) የሚቻል 2) የማይቻል	
309	አስታማሚ ስራው/ዋ ለረጅም ጊዜ መራቅ	1) የሚቻል 2) የማይቻል	
310	ልጆችሽን ከአንች ጋር ወደ ነፈሰጡር ማረፊያ ቤቱ ይዞ መምጣት	1) አስፈላጊ 2) አላስፈላጊ	
ክፍል 4፤ የማቆያ ቤት አጠቃቀምን በተመለከተ			
401	በወሊድ ወቅትና ከወሊድ በሃላ የእናቶች ማቆያ ቤት ተጠቅመዋል?	1. ተጠቅሜያለሁ 2. አልተጠቀምኩም	
402	በስንተኛ ሳምንትሽ ነው ወደ ማቆያ ቤት የገባሽው?	_____ (ሳምንቱን በቁጥር ያስቀምጡ)	
403	ምን ያክል ቀን በማቆያ ቆየሽ?	1. 7 ቀንና ከዛ በላይ 2. 7 ቀንና ከዛ በታች	
404	የእናቶች 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. ጤነኛ ልጅ ለመወለድ		
		2. ሊከሰት የሚችል አደጋ በመፍራት		
		3. ከዚህን በፊትም ስለምጠቀም		
		4. ከሌላ ተቋም ሪፍረ ተደርጌ		
		5. በቤተሰቤ ግፊትና ፍቃድ		
		6. ሌላም ካለ ይገለጽ----		

ክፍል 5 ፣ ከተቋም ጋር የተያያዙ ችግሮች				
501	የተለየ አልጋ፣ ሻውር፣ እና ሌሎች አገልግሎት	1) አለ		
		2) የለም		
502	የባለሙያ ክትትል	1) አለ		
		2) የለም		
503	አዝናኝ ነገሮች፡ ቴሌቪዥን፣ ራዲዮ	1) አለ		
		2) የለም		
504	አልጋ ልብስ ፣ ትራስ፣ ፍረናሽ	1) አለ		
		2) የለም		
506	በቂ የምግብ ማብሰያ ቦታ	1) አለ		
		2) የለም		
507	በቂ ምግብ፣ ቡና፣ ውሃ	1) አለ		
		2) የለም		
508	ባህላዊ የገንጭ ስናስርዓት መኖር	1) አለ		
		2) የለም		
509	የተለየ መጻፍት ቤት ለእናቶች ማቆያ መኖር	1) አለ		
		2) የለም		
510	በቂ ቤተሰብ ሚቆይበት ቦታ	1) አለ		
		2) የለም		

