

WACHEMO UNIVERSITY

COLLEGE OF MEDICINE AND HEALTH SCIENCE,

DEPARTMENT OF MIDWIFERY



**ASSESSMENT OF THE AWARENESS AND
UTILIZATION OF INSECTICIDE TREATED BED NET
AMONG PREGNANT MOTHERS ATTENDING
ANTENATAL CARE AT HALABA HOSPITAL, ETHIOPIA,
2010 E.C**

ID NO.

PROPOSED BY:- 1. AYANT U ASFAW

6194/07

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6250/07

**A REASERCH PROPOSAL SUBBBMITTED TO WECHAMO
UNIVERSITY COLLEGE OF MEDICINE AND HEALTH
SCIENCE, DEPARTMENT OF MIDWIFERY FOR PARTIAL
FULFULLIMENT OF REQUIREMENT FOR THE DEGREE
OF BECHLOR SCIENCE IN MID WIFERY**

ETHIOPIA, 2010 E.C

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MIDWIFERY.

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SUMMARY/ABSTRACT

Background:- malaria infections during pregnancy is a major public health problem in tropical and sub tropical regions throughout the world. It poses substantial risks to mother, her fetus and the neonate. The malaria preventive health behaviors among pregnant women as well as the knowledge about malaria and treatment- seeking behaviors in the rural communities have been found to be generally poor. Furthermore the symptoms of uncomplicated malaria are easily missed in pregnancy at the home and community level, and this lead to a lot of poor out comes of pregnancy. The current study therefore assess the determinants of ITNs use among pregnant women to drive evidence- based intervention strategies to neutralize negative and/or positive factors that emerged through this study in the study area.

Objectives:- To assess the awareness and utilizations of insecticide treated bed net among pregnant mothers attending antenatal care, at Halaba Hosipital, Ethiopia,2010E.C

Methods:-institutional cross sectional study design will be conducted in Halaba Hospital from (Jan- march) with quantitative approach methods. close ended pre tested structured questionnaires will be administered by interviewer method of data collection to consecutive (278) consenting women and it will be entered and analyzed by computer.

Work plan:- the process of thinking about and organizing the activities required to achieve desired goal.

Budget:- the total budget required carrying out this study is 2343 Ethiopian Birr.

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LIST OF ABBREVIATIONS

ANC: - Antenatal Clinic

DDT: -Chlorophenothane, Dicophane

EDHS: - Ethiopia Demographic and Health Survey

ETB: -Ethiopian Birr

FMOH: -Federal Ministry Of Health

IPT: - Intermittent Preventive Treatment

IRS: - Indoor Residual Spraying

ITNs: - Insecticide Treated Nets

LLIN: - Long Lasting Insecticidal Nets

LLITNs: - Long Lasting Insecticide Treated Nets

NMCP: - National Malaria Control Program

OPD: - Outpatient Department

RBM: - Roll Back Malaria

SNNPR: - Southern Nation, Nationalities and People Region

SP: - Sulfadoxine-Pyrimethamine

SSA: - Sub Saharan African

WHO: -World Health Organizations

CHAPTER ONE

INTRODUCTION

1.1 Background

Malaria infection during pregnancy is a major public health problem in tropical and subtropical regions throughout the world. It poses substantial risks to the mother, her fetus and the neonate. In Nigeria, malaria during pregnancy is responsible for 11% of maternal mortality. The resultant impairment of fetal nutrition contributes to low birth weight, which is a leading cause of poor infant survival and development in Africa [1-6].

Malaria is one of the leading causes of illness and death among young children. Many children under the age of five years in malaria endemic areas die of cerebral malaria, low birth weight, respiratory distress, hypoglycemia, severe anemia or repeated convulsions. Malaria is also very serious among pregnant women since their immunity is compromised due to the pregnancy. Malaria during pregnancy, if not properly treated, can cause anemia and also miscarriages, stillbirths, low birth weight and maternal deaths. Currently, a range of effective malaria control interventions are being scaled up in Ethiopia to improve access and equity to preventive as well as curative health services. These initiatives include prompt and effective treatment of malaria, selective vector control including insecticide treated nets

(ITNs) and indoor residual spraying (IRS), and prevention and control of epidemics[10, 11].

In Ethiopia, malaria is one of the most important public health problems, with more than three-quarters of the landmass (altitude <2000 m) of the country and estimated 68% (>50 million people) of the total population resides in areas at risk of malaria infections. Annually, half a million microscopically confirmed cases of malaria are reported to the Federal Ministry of Health (FMOH) from basic health services. However, the actual number of malaria cases in the country is estimated to be more than 5 million each year. According to the 2007/2008 report of the (FMOH), malaria was the leading cause of outpatient visit accounting for 12% of cases and the second cause of (10%)admission next only to admissions for delivery. *Plasmodium falciparum* and *P. vivax* are the dominant malaria parasites distributed all over Ethiopia and account for about 60% and 40% of malaria cases, respectively[12-14].

The World Health Organization's (WHO) strategic framework for malaria prevention and control during pregnancy in areas of stable malaria transmission recommends three interventions: intermittent preventive treatment (IPT), insecticide-treated nets (ITN), and case management of malaria illness and anemia [1, 2&7].

1.2 Statement of the problem

The malaria preventive health behaviors among pregnant women as well as the knowledge about malaria and the treatment-seeking behaviors in the rural communities have been found to be generally poor across the six geo-political zones. These were also noted by the National Malaria Control Program annual report of 2006 as some of the major challenges in Roll Back Malaria (RBM) implementation in Nigeria. Furthermore, the symptoms of uncomplicated malaria are easily missed in pregnancy at the home and community level, and this leads to a lot of poor outcomes of pregnancy[8, 9].

Malaria burden in Sub Saharan African (SSA) Countries has declined substantially with multi-sectorial program support to vulnerable population. Despite this, about 60% of malaria cases worldwide and over 80% of malaria mortality occur in SSA. It has also been reported

that a child under five dies from malaria every 30 seconds and children who survive severe malaria may suffer irreversible functional disability for the rest of their lives. Nigeria has about 25 percent of the malarial disease burden in Africa, contributing significantly to the one million lives lost per year in the region, mostly amongst children and pregnant women. Malaria related deaths account for about 11 percent of maternal mortality, 25 percent of infant mortality, and 30 percent of under-five mortality resulting yearly in about 300,000 deaths. In fact, severe malaria, from a hospital based study in Nigeria revealed the proportion of those admitted for severe malaria during the study period was 13% [21-23].

In addition, the relative scarcity at local vendors is another deterrent of ITN ownership and subsequent use across Africa. Other factors that affect ownership and / or use of ITN were the house construction design, household sleeping facilities and sleeping arrangements especially in large family and competing needs of the household members in the context of the family and the communities. Sleeping space and sleeping patterns also determine the possibility of hanging and sleeping under ITN [24-26].

The global commitment of Roll Back Malaria (RBM) program is to reduce by 50%, the malaria disease and associated death by 2010, a target set by leaders of 44 African nations in Abuja, Nigeria in April 2000. In addition, the specific targets of malaria control under the RBM initiative are: the use of ITN by at least 60% of people at risk of malaria (young children and pregnant women) and access to effective

preventive treatment by at least 60% of pregnant women. Household ownership and use of Insecticide Treated Nets (ITNs) is one of the main strategies of Roll Back Malaria (RBM) program with a view to reducing malaria burden. In this regard, routine and continuous use of ITNs can reduce malaria transmission by up to 90% and prevent up to 44% of all case mortality among under five children [4, 27, 28].

A prospective cross-sectional survey involving pregnant women at the booking clinic of the University of Abuja Teaching Hospital between May and August 2010 reported that the knowledge of malaria and its preventive measures in pregnancy was 71.5%. Intermittent preventive treatment was used by 15.9% of the respondents. Insecticide-treated net ownership was 42.6%; however, its use declined from 28.5% before pregnancy to 24.6% during pregnancy [20].

A study in Kenya reported factors such as knowledge of ITN, level of education, marital status and occupation of caregiver affected ITN ownership and use by under five children in households. A recent review on community acceptance of bed nets revealed that various factors influences the use of bed nets, including cultural, behavioural and demographic factors, ethnicity, accessibility, gender relations and seasonality of Malaria. Free distribution of ITNs, otherwise called 'catch-up' followed by routine provision of ITNs or using subsidy through vouchers for ITNs to vulnerable population in public health clinics or commercial outlets (keep-up) has dramatically increased national coverage and use in the intervention communities [29, 30].

In line with the Roll Back Malaria (RBM) initiative and the Abuja Declaration, Ethiopia has intensified its fight against malaria. Important steps have been under taken particularly to scale-up the implementation of ITNs in the country. In 2006/2007, about 18 million nets were distributed to about 9 million households in malarious areas of the country. The National Five year Malaria Control Strategic Plan (2006-2010) for Ethiopia is to achieve 100% coverage of all ITNs targeted areas with 2 ITNs per household by 2008. However, the national Malaria Indicator Survey (MIS) carried out from October to December 2007 indicates that in areas below 2000m, only 36.6% of the study households owned more than one long lasting insecticidal nets (LLINs) [15-17].

A household cluster survey conducted in Oromia and Southern Nation, Nationalities and People Region (SNNPR) by the Carter Center in January 2007 revealed that 45.4% of the surveyed households in Oromia and 51.2% in SNNPR owned at least one mosquito net of any type and the coverage for at least one LLIN was 32.5% and 40.1%, respectively, indicating a ten-fold increase compared to the Ethiopia Demographic and Health Survey (EDHS) 2005 results of less than 1% in these two regions. However, changes in the health care delivery system and provision of anti-malaria interventions by themselves might not necessarily be followed by changes in the behavior or knowledge about the causes of disease and prevention among the population. The scaling up and effectiveness of anti-malaria interventions are dependent on the local understanding, perceptions and household behavioral practices of the community. The local socio-cultural context, social and economic factors coupled with poor health

service coverage and low community awareness and participation may lead to poor treatment seeking behavior and inappropriate utilization of the currently available cost-effective preventive health interventions such as ITNs and IRS. One of the problems in the implementation of effective malaria interventions is lack of adequate information about the knowledge, attitude, behavior and practice of the local community towards malaria, its prevention and control [18, 19].

The current study therefore assesses the determinants of ITNs use among pregnant women to drive evidence-based intervention strategies to neutralize negative and reinforce positive factors that emerged through this study in the study area.

1.3 Significance of the study

Malaria affects the day to day performance of human beings and create huge burden on economic, social and other aspects of their life in addition to their health effect. By this reason, this study is believed that it will provide an insight for prevention and controlling methods of malarial diseases especially among pregnant women. Therefore the current study is initiated to assess the determinants of ITNs use among pregnant women to drive evidence-based intervention strategies to neutralize negative and/or reinforce positive factors that emerged through this study in the study area.

The result of this study will give a clue about easily available, affordable and cost effective personal and community protective methods. And finally generate and encourage further studies about regular utilizations of ITNs among pregnant mothers and community as the whole.

2 CHAPTER TWO

2.1 LITERATURE REVIEW

Malaria burden in Sub Saharan African (SSA) Countries has declined substantially with multi-sectorial program support to vulnerable population. Despite this, about 60% of malaria cases worldwide and

Over 80% of malaria mortality occur in SSA. It has also been reported that a child under five dies from malaria every 30 seconds and children who survive severe malaria may suffer irreversible functional disability for the rest of their lives

A study conducted in Nigeria demonstrated that 39.1% of the women used ITNs. This is rather too poor considering that this strategy has been shown to hold the key prevention in pregnancy (49)

In fact, severe malaria, from a hospital based study in Nigeria revealed the proportion of those admitted for severe malaria during the study period was 13% (2-4).

A cross sectional study conducting in Gulu district IDP camps indicate that ITNs utilization by pregnant women was low at about only 35%. The report

further reveals that only 20.9% of pregnant women had slept under an ITN a night before the survey in IDP camps.(5_8)

Same study in center Uganda in Luwero district which showed that 31.3% of pregnant women reported using mosquito net during their previous pregnancy (9_11)

A study by Gikandi et al in Kenya found that more than half of the net used by pregnant women were obtained from Antenatal clinics(12_15)

A cross sectional study that was conducted in selected malaria prone areas of Ethiopia showed that ITN distribution and utilization were 97.6% and 81.6% respectively. The majority of households(53.2%) owned a single bed per family, highest in Dire Dawa (93.7%) and lowest in Afar(17.6%). Most of respondents(91.1%) cited that ITNs are useful to control malaria either through prevention of mosquito bite 60% or prevention of the disease 39% (16-20)

In addition, the relative scarcity at local vendors is another deterrent of ITN ownership and subsequent use across Africa. Other factors that affect ownership and use of ITN were the house construction design,

Household sleeping facilities and sleeping arrangements especially in large family and competing needs of the household members in the context of the family and the communities. Sleeping space and sleeping patterns also determine the possibility of hanging and sleeping under ITN (20-22)

The global commitment of Roll Back Malaria (RBM) program is to reduce by 50%, the malaria disease and associated death by 2010, a target set by leaders of 44 African nations in Abuja, Nigeria in April 2000. In addition, the specific targets of malaria control under the RBM initiative are: the use of ITN by at least 60% of people at risk of malaria (young children and pregnant women) and access to effective preventive treatment by

at least 60% of pregnant women. Household ownership and use of Insecticide Treated Nets (ITNs) is one of the main strategies of Roll Back Malaria (RBM) program with a view to reducing malaria burden. In this regard, routine and continuous use of ITNs can reduce malaria transmission by up to 90% prevent up to 44% of all case mortality among under five children (4, 23, 24).

Malaria continues to be a major public health problem in Ethiopia, accounting for about 18% of all outpatient consultations and 22% of deaths in health facilities. About 50 million (>68%) of the country's population are at risk, pregnant women and under-five children being the most vulnerable groups. Transmission in the country is generally seasonal and unstable, and hence, large-scale epidemics frequently occur particularly at higher altitudes. *Plasmodium falciparum* (about 60%) and *P. vivax* (about 40%) are the most important malaria parasites in the country. Insecticide treated nets are reported to be highly effective in reducing childhood mortality and morbidity from malaria. In Ethiopia insecticidal net coverage has increased to 53.3% (25-27)

A study conducted in Shashengo district, southern Ethiopia 65.6% women responds that malaria is transmitted due to poor personal hygiene and environmental sanitation whereas 18.8% of them said malaria is acquired because of bad season. Only 15.6% of them responded that malaria is transmitted through mosquito bites. The majority of respondents (91%) was aware of the consequence of untreated malaria and 81.9% of them mentioned ITNs as one of malaria prevention methods. Only 21.4% used ITNs every night rather majority of them (78.6%) used it seasonal particularly during cold season. (27-29)

A cross sectional study done in rural population of northern Ethiopia states that study participants were asked to name the main symptoms of malaria and 96.7% mentioned fever 93.4% rigor or shivering, 86.7% headache 84.3% chills and 90.2% said that malaria is transmitted by the bite of mosquito. A total of 95.5% reported that malaria could also be transmitted from one person to another. The two main reason given for not owning a net included lack of access to nets(68.3%) and a believe that ITNs could not prevent malaria (27%). Lack of money was not mentioned as a barrier for not owning the net but 4.8% did not know why there households had no nets. 78% of women from households without nets states that they wished to have a net for a future use.(29-30)

Long lasting insecticide treated nets (LLITNs) along with artemisinin-based combination therapy (ACT) has resulted in 73% reduction in in-patient malaria cases as well as 62% reduction in deaths in children under-5 years of age in Ethiopia (31-34). Over the last 10 years, Ethiopia has been promoting and scaling-up ITNs implementation. In line with the 60% ITNs coverage among pregnant women by 2005 in malarious areas of Africa set by the Abuja Summit in 2000, the Ethiopian government agreed to put into place strategies to scale-up and achieve the targets (National 5-year (2001-2005) strategic plan for malaria prevention and control in Ethiopia. The distribution of ITNs in Ethiopia primarily targets households with pregnant women and children under the age of 5 years residing in malarious areas (National 5-year (2006-2010) strategic plan for malaria prevention and control in Ethiopia, unpublished document 2006). In 2006-2007, 16 million nets were distributed to 8 million households in malarious areas (35-38). In line with the Roll Back Malaria (RBM) initiative and the Abuja Declaration, Ethiopia has intensified its fight against malaria. Important steps have been undertaken particularly to scale-up the implementation of ITNs in the country. In 2006/2007, about 18 million nets were distributed to about 9 million households in malarious areas of the country. The National Five year

Malaria Control Strategic Plan (2006-2010) for Ethiopia is to achieve 100% coverage of all ITNs targeted areas with 2 ITNs Per household by 2008.

However, the national Malaria Indicator Survey(MIS)carried out from October to December 2007 indicates that in areasbelow2000m, only 36.6% of the study households owned more than one long lasting insecticidal nets (LLINs) (28-30).A household cluster survey conducted in Oromia and Southern Nation, Nationalities and People Region (SNNPR) by the Carter Center in January

2007 revealed that 45.4% of the surveyed households in Oromia and 51.2% in SNNPR owned at least one mosquito net of any type and the coverage for at least one LLIN was 32.5% and 40.1%, respectively, indicating a ten-fold increase compared to the Ethiopia Demographic and Health Survey(EDHS) 2005results of less than 1% in these two regions. However, changes in the health care delivery system and provision of anti-malaria interventions by themselves might not necessarily be followed by changes in the behavior or knowledge about the causes of disease and prevention among the population. The scaling up and effectiveness of anti-malaria interventions are dependent on the local understanding, perceptions and house hold behavioral practices of the community (38-42).

3 CHAPTER THREE

OBJECTIVES

3.1 General objectives

To assess the awareness and utilizations of insecticide treated bed nets among pregnant mothers attending ANC at Halaba Hospital, Ethiopia, 2010 E.C

3.2 Specific objectives

- ✓ To determine factors that affect utilizations of insecticide treated bed nets among pregnant mothers attending ANC.
- ✓ To assess awareness of malaria prevention treated bed net among pregnant mother attending ANC.
- ✓ To assess utilizations of insecticide treated bed nets among pregnant mothers attending ANC.

4. CHAPTER FOUR:MOTETHODS AND MATERIALS

4.1Study area and period

The study has been conducted in Halaba Hospital from jan-Mar, 2010 E.C. Halaba is the district (liyu woreda) of SNNRP, Ethiopia . It is located in southern side of Ethiopia about 203kms from the capital city of Ethiopia, Addis Ababa and 90km from capital city of SNNRP, Hawasa. .the total population was27,359 of which 13,741 aware male and 13,618 female. The proportion of male and female is about 50.2 to 49.8(%), respectively. It is a warm and dry climate with a relatively low level of precipitation.

Halaba Hospital gives an outpatient and inpatient services. In the Outpatient Departments (OPD), it has Medical OPD, Surgical OPD, Pediatrics OPD, Gynecologic OPD and Emergency OPD and specialty clinics like TB & ART clinic, Adult reproductive Health clinic And it also has preventive services like ANC, EPI and FP and inpatient give services by dividing in to:- Medical ward, Surgical ward, Pediatrics ward, and Gynecologic &Obstetric ward.

4.2 STUDY DESIGN

- ✓ Institutional based cross-sectional study design will be conducted
- ✓ **4.2.1 Source population**
- ✓ All pregnant mothers who attending ANC in Halaba hospital
- ✓ **4.2.2 Study populations**
- ✓ All pregnant mothers who attending ANC at Halaba Hospital during the time of data collection period
- ✓ **4.2.3 Study units**
- ✓ Individual pregnant mothers who visit ANC at Halaba and will be selected for the study during the time of data collection period.

4.3 Eligibility criterion

- ✓ **Inclusion criterion**
- ✓ All pregnant mothers who come to Halaba for ANC follow up during the time of data collection period.

✓ **Exclusion criterion**

- ✓ Pregnant mothers who are mentally ill and physically not capable to communicate and listen.
- ✓ Pregnant mothers who are not volunteer to participate.

4.4 Sample size determination

The sample size of this study will be determined by using a single population proportion formula with the following assumptions.

Thus, $n = Z^2 pq / d^2$ Where,

✚ n = sample size.

✚ p = expected proportion of ITN utilization among pregnant women 24.6% [20].

✚ $q = (1 - p) = 75.4\%$

✚ Z = constant at 95% Confidence Interval (1.96).

✚ d = margin of error (5%).

$$n = (1.96)^2 (0.246)(0.754) / (0.05)^2 = 285.$$

Since the source population is <3000, we will use the population correction formula, by considering the monthly average of ANC visit from Oct-Nov/2010E.C, which is 180. So yearly visit $N = 12 * 180 = 2160$.

Then, $n_f = n_i / (1 + n_i / N) = 285 / (1 + 285 / 2160) = \mathbf{252}$

By considering 10% none response rate, the final sample size was 278.

4.5 Sampling techniques and procedures

The study units all pregnant mothers who visit ANC at Halaba during the time of data collection period and full fills the inclusion criterion will be selected for the study through convenience sampling technique and included in the sample until the required sample size becomes achieved.

4.6 Study variables

✓ Dependent variables

- Utilizations of ITNs.
- Awareness about ITNs.

✓ Independent variables

- Age
- Occupation
- Marital status
- Religion
- Family size
- Accessibility
- Ethnicity
- Residence

- Gender
- Income and residence accommodation.
- Knowledge
- Attitude

4.7 Data collection method

The data will be collected by using interviewing, pretest, standardized questionnaire of data collection method. Oral translation to local language will be used by the principal investigator, who is data collector during data collection time in order to maintain its consistency. Any problem faced during data collection must be solved in the next day of data collection

4.8 Operational

definitions

- ❖ **High risk groups:** - part of population which are highly vulnerable to the malarial disease and identified as pregnant women &/or children less than 5 years age.
- ❖ **Insecticide treated bed nets:** - a net or screen dipped in an insecticide for protection against mosquito bite during sleeping.

- ❖ **Knowledge:** - what the individuals know about malaria and its prevention.
- ❖ **Knowledgeable:** - those study unit who answers more than 50% of the knowledge addressing questions.
- ❖ **LLINs:** - factory pre-treated nets that require no further treatment during its expected life span of 4-5 years.
- ❖ **Practice/utilize:** - those study unit who answers more than 50% of the practical addressing questions.
- ❖ **Re-impregnation:** - nets treated with one of pyrethroid insecticides at home or community level.
- ❖ **Treated nets:** - nets to be treated with insecticide before use.
- ❖ **Untreated nets:** - nets not treated with insecticide before use.
- ❖ **Utilization:** - regular practical application of malaria control interventions as the part of their behavior.

4.9 Data Processing and Analysis

The collected data was organized. Then, entered and analyzed by computer . Frequency distribution tables and statistical graphs were used to summarize data. Cross-tabulations and bivariate analysis were used to show the association between variables. Logistic regressions and Chi- square test was applied in order to examine the association between dependent and independent variables. A p-value of less than 0.05 was considered statically significant at 95% confidence level.

4.10 Data Quality Assurance

To assure the quality, validity and reliability of data, pre-taste of the standardized questionnaire will be conducted on 5% of the total sample size in Halaba Hospital prior to full scale study test the instrument, strategies and to make necessary correction the data was collected under principal investigator supervision expert advice was employed and pertinent change was made accordingly. Data collected was cleared and checked for completeness and internal consistency at a time of data collection day and before processing.

4.11 Ethical Considerations

Data will be collected without affecting the privacy of any that will be involved in the study. a letter explaining about the research will be provided by wechamo University College of medicine and Health science, department of midwifery. Verbal consent from each subject must be asked and secured after detail explanation of the main purpose of the study. Confidentiality of the information forward by subjects will be assured by omitting names of the study subjects from the questionnaire and large effort will be made to maintain the privacy of the respondents during interview.

4.12 Disseminations plan

At the end of the study, it will be presented to Wechamo University College of medicine and health Sciences. The result will disseminate to the department of Midwifery and College.

5 CHAPTER FIVE: WORK PLAN AND BUDGET BREAKDOWN

5.1WORK PLAN

GANT CHAR

NO	Activity	Responsi ble person	Oct	No v	De c	Jan	Fe b	Ma r	Apr	Ma y	Ju
1	Title submissio n	Research er									
2	Title selection	Departm ent									
3	1 st draft submissio n	Advisor									
4	2 nd draft submissio n	Advisor									
5	Final proposal submissio n	Research er									
6	Proposal presentati on	Research er									
7	Questionn aire	College									

	duplication										
8	Data collection	Researcher									
9	Data analysis and report writing	Researcher									
10	1 st thesis draft submission	Researcher									
11	Finalize paper	Researcher									
12	Monitoring	Advisor									

5.2 -Budget breakdown

No .	Budget Category	Unit Cost	Multiplying Factor	Total Cost (Birr)
<i>1</i>	<i>Personnel</i>	<i>Daily wage</i>	<i>Number</i>	

	<i>Advisor</i>	<i>100</i>	15	<i>1, 500</i>
	<i>Data Collector</i>	<i>100</i>	5	<i>500</i>
	<i>Subtotal</i>			2000
2	<i>Supplies</i>	<i>Cost per item</i>	<i>Number</i>	
	Questionnaire duplication	1	278	278
	Pen	5	10	50
	Pencil	3	5	15

Consent request letter

We are graduating student from Wechamo university faculty of medicine and health science department of midwifery.

We are conducting a research on assessment of awareness and utilizations of insecticide treated bed nets among pregnant mothers attending ANC at, Halaba Hospital , Ethiopia, 2010EC

Hello, we name is ----- we are from wechamo University College of medicine and health sciences, department of midwifery. We would like to interview you a few question about ITN. The objective of this study is to assess the acceptance of ITN among pregnant mother who follow ANC. so your cooperation and willingness for the interview is help full in identifying problem related to the subject matter. Your

name will not be written in this form and all information that you give will be kept strictly confidential .your participation is voluntary and you are not obliged to answer any question if you do not wish to answer.

Do we have your permission to continue?

IF yes, continue to next page .Thank you in advance!

Q.no	Question	Variables or possible response	Skip rule
Section 1	Socio demographic characteristics		
1.	Age in years;	-----	
2.	Current religion	A Orthodox B Muslim C Catholic D Protestant E Others (specify)	
3	3. Marital status	A Single B Married C Divorced D Widowed	
4	Educational Qualification:	A Unable to read and write B Read and write C Primary D Secondary E Tertiary/university	
5	Occupational status:	A Farmer B Student C Housewife D Merchant E NGOs F Government employee G Others (specify)	
6	Ethnic group:	A Oromo B Amara C Tigre D Somali E Others (specify)	
7	Residence:	A Urban B Rural	

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