ADDIS ABABA UNIVERSITY

SCHOOL OF GRADUATE STUDIES

COLLEGE OF SOCIAL SCIENCES

DEPARTMENT OF GEOGRAPHY AND ENVIRONMENTAL STUDIES

Factors Affecting Utilization of Maternal Health Care Service .In Duna Woreda,SNNPR

Tsedeke Tadesse

A Thesis submitted to

The Department of Geography and Environmental Studies

Presented in Partial Fulfillment of the Requirements for the Degree of Masters of Art **(Geography and Environmental Studies)**

Addis Ababa University

Addis Ababa, Ethiopia

Feb, 2015

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Advisor: Dr. Solomon Mulugeta

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This is to certify that the thesis prepared Tsedeke Tadesse, entitled: *Factors affecting maternal health care utilization in Duna Woreda SNNPR* and submitted in partial fulfillment of the requirements for the Degree of Master of Art in Geography and Environmental Studies (population, resource and development) complies with the regulations of the University and meets the accepted standards with respect to originality and quality.

Signed by the Examining Committee:

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Examiner_____Signature_____Date _____

Advisor_____Signature_____Date _____

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Acronyms

ANC:	antenatal care
CI:	Confidence Interval
CSA:	Central Statistic Authority
DWEFD:	Duna Woreda Economic Finance Development
DHS:	Demographic Health Organization
FGD:	Focus Group Discussion
EDHS:	Ethiopia Demographic And Health Survey
HDC:	Home Delivery Care
HSDP:	Health Survey Development Program
MDG:	Millennium Development Goals
MMR:	Maternal Mortality Rate
MHCS:	Maternal Health Care Services
TBA	Traditional Birth Attendance
SNNPR:	Southern Nation, Nationality And People Region
MOH:	Ministry of Health
PADC:	Professional Assistance Silvery Care
UNFPA:	United Nation Population Fund
WHO:	World Health Organization

Abstract

Maternal health care service utilization is very low in developing countries especially in Ethiopia .Having this in mind, this study was made to assess factors influencing the utilization of maternal health care service in *Duna Woreda, SNNPR* Ethiopia. A primary data source was used as a data input and cross-sectional study was conducted from January 10 to March 20, 2014 in *Duna Woreda,* SNNPR. A Total of 130 women birth in the three preceding the survey were selected systematically. Data were collected using questionnaires and FGD were used to collect quantitative and qualitative data, respectively. The study indicates that ANC of coverage the study area was very low; about (46.1%). The main reasons non attending ANC service accessibility and availability of health service. Institutional delivery coverage in the study area was also very low; about 21.6% .majority of delivers took place at home; about 78.4%of delivers took place at home due to presences of relatives nearby, prefer TBA, lack of awareness, and transport problem were the main reason cited for resorting to home delivery. The chi-square test analysis indicate that the risk of non-attendance of ANC service and home delivery was higher for those women whose resident was rural, low educational status, women attitude, higher parity, distance, ,household income and access to media found to be significantly predictors. in conclusion, the study indicate that the low coverage of ANC and delivery care service in the study area due to demographic ,socio-economic and socio-cultural factors. Increasing of maternal health service coverage and promotion of education, information, women awareness for use of institutional delivery and ANC service in the rural and urban community are recommended.

CHAPTER ONE

1. Introduction

1.1. Background of the study

Maternal health care (MHC) can reduce maternal mortality, reproductive mortality and improve pregnancy related out come. Complication of pregnancy and child birth are leading cause of maternal mortality and morbidities for women in developing and developed countries. Pregnancy and child birth are natural and continuous process in which many women are at risk for developing complication during pregnancy and child birth. These complications are the leading causes of disability and death among women of reproductive age (15-49 years) in developing countries (Kassu , 2012).

Maternal health has emerged as global priority because of a great gap in the status of mother's wellbeing between rich and the poor countries. According to WHO (2008), maternal health refers to the health of women during pregnancy, childbirth and the postpartum period. In rich countries, where women have access to basic health care, giving birth is a positive and fulfilling experience. On the other hand, for many women in poor countries it is associated with suffering, ill health and even death.

The World Health Organization (WHO, 2010) estimated that 536,000 maternal deaths occur worldwide each year from complications arising from pregnancy, and a high proportion of these deaths occur in sub-Saharan. Developing countries accounted for 99% (533,000) of the deaths. Slightly more than half of the maternal deaths occurred in the sub-Saharan Africa region alone, followed by South Asia (188,000). Thus, sub-Saharan Africa and South Asia accounted for 86% of global maternal deaths.

The fifth Millennium Development Goal (MDG) aims at improving maternal health and Targets reducing MMR by 75% between 1990 and 2015 that is, it seeks to achieve an expected 5.5% annual decline in MMR from 1990. However, MMR has decreased at the global level at an average of less than 1% annually between 1990 and 2005. To make the achievement of the fifth MDG a reality, MMR will have to decrease at a much faster rate especially in sub-Saharan Africa, where the annual decline has so far been about 0.1 %(MDG report, 2010).Mothers play a principal role in the rearing of children and the management of

family affairs, and their loss from maternity-related causes is a significant social and personal tragedy.

An estimated 358,000 maternal deaths occurred worldwide in 2010, a 34% decline from the levels of 1990. Despite this decline, developing countries continued to account for 99% (355,000) of the deaths. Sub-Saharan Africa and South Asia accounted for 87% (313,000) of global maternal deaths. Eleven countries including Afghanistan, Bangladesh, the Democratic Republic of Congo, Ethiopia, India, Indonesia, Kenya, Nigeria, Pakistan, Sudan, and the United Republic of Tanzania, comprised 65% of all maternal deaths in 2008 (WHO, 2010) .

The progress of reducing MMR is notable, but the annual rate of decline is less than half of what is needed to achieve the fifth Millennium Development Goal (MDG5) target of reducing the maternal mortality ratio between 1990 and 2015. This will require an annual decline of 5.5%. The 34% decline since 1990-2008 translates into an average annual decline of just 2.3%. This is still far from the annual decline of 5.5% required to achieve MDG5 (WHO 2010).

In actual fact, the majority of maternal deaths a worldwide is occurring in least developed countries from pregnancy- related complications. In sub-Saharan Africa, the risk of maternal mortality and morbidity is alarmingly higher with ratio of 1 in 22 compared to a ratio1 in 7300 in developed region (UNFPA, 2004).

Access to the health care includes at least two dimensions; economic access in terms of affordability and geographic access in terms of providers. The poor, most of the time, appeared to have the least access to health care services. These differences in access to maternal health care continue to exist between the richer and poorer, and urban and rural and educated and uneducated (Anwar. et.al, 2004). Ethiopia health care system is among the least developed in sub Saharan Africa and is not, at present, able to effectively cope with the significant health problem facing the country. The service centre are comprised of 143 hospitals, 690 health centers, 1662 health stations of which 62%, 97%, and 77% respectively are owned by the ministry of health(HSDP, 2007). In Ethiopia only 28% of mothers received antenatal care from health professional for their recent birth and 37% received tetanus; only 6% babies were delivered by the health professionals and 5% at the health facility (CSA and ORC Macro, 2006).

According to the Central Statistical Agency (CSA) report of the 2011 Ethiopian demographic and health survey (EDHS), urban women are twice more likely to have received ANC from a health professional than rural women (76 % vs. 26 %) and also 51% of births to urban mothers were attended by a health professional and 50 % delivered in a health facility, compared with 5 % and 4 %, respectively, of births to rural women (CSA, 2011). This shows the existence of a huge gap in maternal health care services utilization between rural and urban Ethiopia.

In this study the researcher was examined the influence of different indicator of women household position on the receipt of skill antenatal and delivery care in SNNPR, Hadiya zone, in Duna Worada. Moreover, the area is characterized by complete absence of research made on the determinants of maternal health care service. This paper will aim to fill these gaps.

1.2 Statement of the problem

Several studies across the world revealed that low utility of maternal health care service to be one of the important causes for this high level of maternal mortality and morbidity in developing countries. The World Health Organization (WHO, 2005) accounted that 536,000 maternal deaths occur worldwide each year from complications arising from pregnancy, and a high proportion of these deaths occur in sub-Saharan. Developing countries accounted for 99% (533,000) of the deaths. Slightly more than half of the maternal deaths (270,000) occurred in the sub-Saharan Africa region alone, followed by South Asia (188,000). Thus, sub-Saharan Africa and South Asia accounted for 86% of global maternal deaths.

Pregnancy and child birth are natural and continuous process in which many women are at risk for developing complication during pregnancy and child birth. These complications are the leading causes of disability and death among women of reproductive age (15-49 years) in developing countries (WHO, 2005).

Maternal death is a major concern of maternal health in developing countries. Maternal mortality in Ethiopia is estimated to be 290 per 100,000.This is one of among the highest in the world(CSA, 2011) compared to 9 per 100,000 live birth in developed countries, 420 per 100,000 live birth in sub Saharan countries and 250 per100,000 live birth worldwide(WHO, 2010).

Moreover, the target reduction of 75% between 1990 and 2015, which requires 5.4% annual decline rate, cannot be met in sub Sahara Africa (MDG Report, 2009).

As different studies documented that the coverage of maternal health care service is very low in Ethiopia. Only about 27% and 6% of women receive professionally assisted antenatal and delivery service (EDHS, 2005), the service coverage also low in SNNPR level.

According the estimate developed by WHO (2007), the number of pregnancy related maternal death was 1 in 92 for the world (1 in 22 for the SSA and 1 in 7300 for the developed region. This clearly shows a big regional gap in health care and maternal mortality. A major explanation for the maternal mortality rate in Africa is lack of access of adequate medical care (ECA, 2009)

Antenatal care coverage of the world is 72%(developing countries 68% and industrialized countries 98%)(UNICEF,2012).According to MHO, health and health related indicators 2011/12,through potential health services coverage has reached 78% in 2011/12. Utilization rate remain low at 0.24% out of patient visits per capita . Antenatal care coverage of Ethiopia is 59.4% and deliveries at health care facilities are 20.3% (MOH , 2012).

According to the Central Statistical Agency (CSA) report of the 2011 Ethiopian Demographic and Health Hurvey (EDHS), urban women are twice more likely to have received ANC from a health professional than rural women (76 % vs. 26 %) and also 51% of births to urban mothers were attended by a health professional and 50 % delivered in a health facility, compared with 5 % and 4 %, respectively, of births to rural women (CSA, 2011). This shows the existence of a huge gap in maternal health care services utilization between rural and urban Ethiopia.

Despite the fact that maternal health care utilization is essential for further improvement of maternal and child health and researchers have devoted considerable attention to the importance of accessibility to health services on health outcome in the country. Little is known about the status and factors influencing the use of maternal healthcare services in Ethiopia in most regions in general, and Hadiya Zone, Duna *woreda* in particular.

The region of SNNPR (Nouthern Nation Nationalities PeopleRregion) the study *woreda* one of the part of the country to share this high maternal mortality rate that prevails over the country .It antenatal care service (ANC) and known deliveries helps to reduce the incidence of maternal

morbidity and mortality by providing opportunities for health promotion and information about danger sign, birth preparedness and where to seek care for pregnancy complications. However, this maternal care utilization in Ethiopia is very low as compared to developed and most of the developing countries. Little is known about determinants of ANC and delivery service utilization in Ethiopia in general and Hadiya zone Duna woreda in particular. Therefore, this study will add its contribution in filling this gap using primary data from the study area.

The health coverage of Hadiya zone is very low during the 2005/06 fiscal year, the zone had only 1 hospital,17 health centers,17 special pharmacies,6 drug shops and 20 rural drug vendors for an estimated population about one and half million that is distributed in its 10 woredas that are connected by poorly developed road network. When it comes to health personal, the available data shows that zone had only 15 doctors in 1997 E.C. This means the zone had roughly one doctor per 94,951/person in 1996/97E.C. Comparatively, the SNNPR as whole had roughly 1 doctor per 55,000 person during the same year(Solomon,2008).This data shows that Hadiya zone is one of the lowest health coverage in the country and low maternal health care utilization in the region .

There are a number of literature have been done in maternal health care utilization in different areas. But those literatures do not have touch the influences of geographical determinants rather they focused only on health perspective and were not considered geographical factors on maternal health particularly delivery and antenatal. For instance, Zeine (2010); Hayelom (2008); Hiberta (2007) and others focused on antenatal care. Haile Abose (2010) was the only one who published his article in Hadiya Zone in general. The main gap of this context he has been assessed a general manner. His article did not touch in each specific area. In this the researcher survey fills this gap in the study. On the other hand, there are serious documents which have the antenatal and delivery utilization. These researches were largely on only urban centers. They have not been assessed antenatal and delivery utilization in rural areas. For examples, Indiras et al, (2006), Melkamu (2005), and others have been conducts the research in urban areas. In addition to this, they were not considering the spatial variation and other geographical determinants like distance from health accessibility and availability in relation to health. Therefore, the researcher filled this and other related gaps in the study area.

1.3 Objectives of the study

1.3.1 General objective

The general objective of the study is to assess factor influencing the utilization of maternal health care service in Duna woreda, SNNPR Ethiopia.

The specific objective of the study:

1. To state the level of utilization of antenatal and delivery care services in *Duna woreda*
2. To identify economic and demographic factors those are associated with utilization of maternal health care services.
3. To examine socio-cultural factors that affects utilization of maternal health care service.
4. To examine the effect of women's attitude on utilization of maternal health care service
5. To express the extent to which accessibility of health institution influences their utilization by women in child bearing age.

1.3.2 Research Question

1) What is the level of utilization of maternal care (antenatal and delivery) service in the woredas?
2) What are the socio-economic and demographic factors influencing utilization of maternal health care services in *Duna woreda*?
3) Does planned pregnancy and positive attitude of husband or partners increase utilization of maternal health care services in *Duna woreda*?
4) What is the effect of women's knowledge and attitude on the utilization of maternal health care services?
5) What are the influences distances from health facilities in utilization of maternal health care service in the study area?

1.4 Significance of the study

Maternal mortality is an important public health problem generally in developing countries where uptake of maternity care is very low. ANC and delivery care is one of the most important interventions proposed by World Health Organization to reduce maternal mortality. Identifying

the factors influencing use of ANC would have meaningful implication in high maternal mortality countries like Ethiopia. This study may help implementation of maternal health programs based on finding.

The study aims at findings useful information that prevents women to deliver in health facilities while large number of them attend antenatal clinic at least once in their period of pregnancy and less than half deliver in health facilities. The information obtained will be useful for the community and decision makes at the and regional level in planning, implementing and evaluating various interventions related to research findings to reduce maternal mortality rate and achieve millennium development goals.

The results of the study could appraise understanding of policymakers by including the main determinant factors affecting the maternal health care utilization in rural Ethiopia. The results can serve as an important input for any possible intervention aimed at improving the maternal health care utilization which will help to reduce maternal mortality rate.

Despite the fact that maternal health care utilization is essential for further improvement of maternal and child health and researchers have devoted considerable attention to the importance of accessibility to health services on health outcome in the country. Little is known about the status and factors influencing the use of maternal healthcare services in Ethiopia in most regions in general, and Hadiya Zone, Duna woreda in particular.

Maternal mortality is a crucial problem in many developing countries, particularly in Ethiopia. The following facts was enforced the study to focus on maternal health care service on SNNPR in Duna woreda. To minimizing maternal mortality rate and ratio in the *woreda*, for planning and evaluating of maternal health care service in the study area, and also this study will benefit the society, particularly women in reproductive age(15-49) to have a better utilization of the Service which was improved their health status and wellbeing, and developing the awareness of health professional and all other concerned bodies of the government about the possible causes of the less utilization of reproductive health care among women in the *woreda*.

1.5 Scope of the study

Research on maternal health care requires a wide study on different groups, levels and areas of the country. But, in order to make the study more manageable, its scope is delimited to one selected *woreda* of Hadiya zone Duna worada in SNNPR. Based on the relevance to the problem only women of reproductive age (15-49 years) in the *worada* are included in the study.

1.6. Limitation of the study

The most challenging and facing problems of the study area was very few respondents, were not willing to give reliable information especially antenatal care service utilization, delivery care service utilization and other related background variables questions partially, absence of very few sample respondents at the time of interviews, shortage of time and finance and varying in quantitative some of information gap between concerned governmental administration

1.7. Organization of the thesis

The thesis constitutes of five chapters and they are organized in the following way. The first chapter deals with the introductory part of the thesis such as statement of the problem, objectives of the study, research questions, significance of the study, scope of the study and limitations of the study. The second chapter includes review of related literatures which are relevant with the research topic. Whereas, the third chapter provides details about the background of the study area such as physical settings including location, climatic and socio-economic conditions, research methodology and procedures employed to collect data and analysis of the data presented. The fourth chapter deals with data presentation. Finally, Chapter Five gives summer, conclusion and possible recommendation based on the results of the study.

1.8 Operational Definitions

Maternal health care refers to the health of women during pregnancy, childbirth and the postpartum period. It is health care services reducing maternal and infant morbidity and mortality during pregnancy and child birth(WHO,2005).

Antenatal care (ANC*)* is the health care of women throughout the course of pregnancy (Zenebe, 2011.)

A skilled attendance of delivery is defined by the (WHO, 2010)health professional-such as a midwife, doctor or nurse-who has been educated and trained to proficiency in the skill needed to manage (uncomplicated) pregnancies, child birth and the immediate postnatal period and in the identification, management and referral of complication in women and the new born.

Accessibility of the health service is refers to the distance between the women residence and health center. It is one of the influencing factors of the utilization of MHC service(Freedman,2003).

Traditional birth attendant (TBA) as a person who assists the mother during childbirth and who initially acquired her skills by delivering babies herself or through an apparentship to other TBAs. It is also traditional birth attendant (TBA), also known as a traditional midwife, community midwife or lay midwife, is a pregnancy and, child birth care provider pregnancy(Melkamu,2005).

Timing of antenatal care refers to percentage of women having their first antenatal visit in 1st, 2nd, and 3rd trimester or having no visits. Antenatal visit refers to a visit to a certified health care professional, e.g. general practitioner, obstetrician, midwife and public health nurse. Only visits to examinations and/or pregnancy-related advice are to be included. Mere prescription of a pregnancy test or booking in a maternity unit should be excluded (UNFPA,2004).

CHAPTER TWO:

2 Review of Related Literature

2.1. Overview of Material Mortality

Maternal mortality is a fundamental complex measure of a country's overall health and development status. It is defined as the death of women while pregnant or within 42 days of termination of pregnancy irrespective of the duration and site of the pregnancy from any cause related to or aggravated by the pregnancy or its management but not from accidental or incidental cause (WHO, 1993). Maternal mortality reflects one of the shameful failures of human development (Freedman et.al 2003).

Maternal health refers also to the health of women during pregnancy, childbirth and the postpartum period. The importance of maternal health care services in reducing maternal and infant morbidity and mortality has received increasing recognition since the International Conference on Population and Development (ICPD) in Cairo. According to the ICPD program of action, maternal health services should include education on safe motherhood; effective and focused prenatal care; maternal nutrition programs; adequate delivery assistance that avoids excessive recourse to caesarian sections and provides for obstetric emergency; referral services for pregnancy, childbirth and abortion complications; post-natal care and family planning (UNFPA, 2004).

The World Health Organization (WHO, 2005) estimates that nearly 536,000 maternal deaths occur worldwide each year from complications arising from pregnancy, and a high proportion of these deaths occur in sub-Saharan Africa. Developing countries accounted for 99% (533,000) of the deaths. Slightly more than half of the maternal deaths (270,000) occurred in the sub-Saharan Africa region alone, followed by South Asia (188,000). Thus, sub-Saharan Africa and South Asia accounted for 86% of global maternal deaths. Maternal Mortality Ratio (MMR) in 2005 was highest in developing regions with 450 maternal deaths per 100,000 live births, in stark contrast to developed regions with 9 maternal deaths per 100,000 live births and in countries of the commonwealth of independent states 51 maternal death per 100,000 live births.

(WHO, 2005) estimates that nearly 536,000 maternal deaths occur worldwide each year from complications arising from pregnancy, and a high proportion of these deaths occur in sub-Saharan Africa. This number declined after five years to, 358,000 women die worldwide from pregnancy-related causes, nearly all in Sub-Saharan Africa and Asia (WHO, 2010).

Maternal mortality in developing countries and economically restrained settings remains a daunting and largely unmet public health challenge. Thus, improving maternal health and reducing 1990 level maternal mortality rates by 75% by 2015 is set as a key goal in millennium development goals (MDGs). Economic development has its own contribution in improving maternal health in developing countries (Seneviratne and Rajapaksa, 2000).

Since the international conference on population and development (ICPD) in 1994, there has been a growing concern about information on levels, trends and differentials in material mortality. However, in most developing countries such information remains fragmentary. It is difficult to monitor maternal mortality in population where it is highest and vital as non-existent or incomplete. To measure maternal mortality accurately, information is required about details among women of reproductive age, their pregnancy status at or near the time of death and the medical cause of the death-all of which can be difficult to measure accurately. Maternal mortality estimates can be obtained from vital registration, longitudinal studies of pregnancy women or repeated household surveys (EDHS, 2005).

2.2. Maternal health care utilization

2.2.1. Antenatal care service

Antenatal care (ANC) is the health care of women throughout the course of pregnancy. Good prenatal care helps ensure the health of both the mother and the baby. Regular checkups and prenatal testing are important parts of prenatal care. It is part of the primary health care services for pregnant women and management of the fetus. Complications during pregnancy and childbirth are unpredictable and often occur suddenly without warning(Zenebe ,2o11).

Antenatal care much theoretically reduce maternal mortality and morbidity directly through detection and treatment of pregnancy related or inter current illness or indirectly through detection of women at increase risk of complication of delivery ensuring that they deliver in a suitable equipped facility (Melkamu , 2005).

Antenatal care can play an important role in improving maternal health; not by it-self but through encouraging women to use other service such as institutional delivery and advice on pregnancy or delivery complication. ANC motivate pregnant women facing any pregnancy complication to seek advice for her problem (Zenebe , 2011).

The WHO (2005) has identified four main interventions as critical in efforts to reduce maternal mortality in developing countries. These are family planning, antenatal care, skilled birth attendance and emergency obstetrics care. It is now recognized that countries with high rates of maternal mortality have low uptake of these four essential interventions. By contrast, countries that have successfully reduced maternal mortality consistently have much higher uptake of this intervention.

Lower utilization of maternal care service among higher gravity (multi parious) women could be due to time and resource constraints faced by those with large families and greater experience of higher parity women with pregnancy and child birth (Addai , 1998).

2.2.2. Delivery service

A skilled attendance of delivery is defined by the (WHO, 2010)health professional-such as a midwife, doctor or nurse-who has been educated and trained to proficiency in the skill needed to manage (uncomplicated) pregnancies, child birth and the immediate postnatal period and in the identification, management and referral of complication in women and the new born. Delivery care can be divided into two general categories. The first one is basic care which includes attending normal deliveries, care of the new born and immediate stabilization of a mother if she has complication before referral. The second one is emergency obstetric care.

Delivery care is important for the health of both the mother and the new born, especially if there are child birth complications. To reduce the risk of infections and any complications can be effectively managed in the presence of qualified attendant with suitable equipment and supplies.

However, in most sub-Saharan Africa, delivery care is far from adequate as a large proportion of deliveries occur at home and in the absence of qualified attendant (Niguse, 2010).

Ethiopia ranks low in terms of delivery assistance from a health professional and delivery in a heath facility. The percentage of births delivered by health professional is 10 times higher in Cameroon (62.10) than on Ethiopia (6%) and the proportion of births delivered by health professional in Senegal (62%), Malawi (57%) and Lesotho (52%) (Macro International Inc. 2007).

The study conducted in south west Ethiopia reported 83% delivered at home and home and 66% the deliveries were attended by TBAs (Mekonen , *2012*) the study *in Gulele District*, Addis Ababa, revealed that one fourth of women preferred at home. This of preference to deliver at home was higher in the study area due to lack awareness, education, and distance from health center.

2.3. The millennium development goals and maternal mortality

Since 2001, 189 United Nation members' states covered for the United Nation Millennium summit. Together they adopted eight interlinked Millennium Development Goals (MDG). These were unprecedented efforts to meet the needs of the world's poor countries towards better health of their people by the year 2015. The fifth goal aimed at improving maternal health, with the objective of reducing by quarter (75%) the ratio of mothers and infant death by 2015 (MDR report,2010).

To monitor the progress towards achieving of this goal, maternal mortality ratio (MMR) as the outcome indicator and the number of births attended to by skilled personnel as the process indicator were the two indicators that's were to be assessed (WHO, 2010). The fourth goal focused on reduction of child mortality health two thirds by 2015. These two goals are somehow interrelated since health children need healthy mothers.

2.4. Factors Influencing Maternal Health care Services utilization

The literature suggests that the use of MHCS in developing countries can be influenced by factors such as the socio-demographic characteristics (SDC) of women; culture; and availability and accessibility of the services (Mekonnen 2002; Isah & Igbekoyi, 2009). Various studies in the

literature indicate an association between factors such as income, education, ethnicity, religion, culture, age, parity and decision-making power to utilization of MHCS. Majority of research publications reviewed were of quantitative studies seeking to identify statistical association between these factors and MHCS use (Idris et al, 2006; Babalola, 2009).

Several studies have been done Worldwide including Tanzania and Ethiopia regarding factors affecting delivery in health facilities. The factors that have been studied include Socio demographic factors, socio economic factors, availability of health services, accessibility, behavior and attitudes of health care providers and socio cultural issues (Moore, 2011).

2.4.1. Socio – economic factors

Logically economic status is an important determinant of health care utilization, since it reflects individuals or a household's ability to pay for health services with a higher wealth and there by a higher budget, the individual can increase its investments in health. On the other hand a wealthy an individual's which current income may affect health care consumption negatively since the opportunity cost of spending time in utilizing health service increase with income (Groissman 2000, Muurinen 1982).

However, empirical finding from developing countries confirm poor-rich tendencies in health service utilization, in both the private and the public health sectors (Wagst aff, 2002). Demographic factors may shape a women's desires to make use of services (for example, younger women may have more positive attitude towards health care), the socio-economic status of an individual and her house hold determines her economic ability to do so (Stephenos et.al. 2002).

2.4.2. Place of Residence.

The place of residence is an important factor affecting maternal healthcare services utilization. A study done based on the 2005 Ethiopian DHS demonstrated that 27% of mothers who gave birth in the five years before the survey received ANC from health professional and further analysis showed that urban women showed higher use of ANC 24 than the rural counterparts, 83% of women in Addis to 22% women in the rural regions (Yaredand Asnaketch, 2002). Proximity to a health facility has been found to affect the use of

maternal healthcare services especially in rural areas (Rahaman et al, 1982 cited in Chakraborty et al, 2003) as these facilities are usually located at long distances. *A* systematic review which assessed the inequalities in maternal health service utilization using 30 papers from 23 countries including Ethiopia showed that pattern of use of the maternal health services was different among countries and even within countries. Urban and wealthy women were more likely to receive assistance of health professional than rural and poor women. The study also showed that wealthier women were likely to seek early ANC than poor women (Say and Raine, 2007). For many, lack of transportation and/or considerations of the cost of transportation serve as mitigating factors to healthcare seeking. For others, the low quality of services and anticipation of poor behavior from health staff may be the mitigating factor/s. In general rural women are less likely to give birth in health facility than their urban counterparts (Babalola and Fatusi, 2009) .

Living in urban areas increases the probability of pregnant women using trained professionals for birth deliveries. In southern India, urban residence increased the likelihood of institutional delivery compared to rural residence Babalola S, Fatusi A (2009) .Place of residence was found to be an important predictor for the use of delivery services in Ethiopia as well as in Nigeria, with urban women more likely to use institutional deliveries compared to rural women. Compiled data from different settings in two reviews showed that urban residence increased the use of delivery services . Gabrysch S, Campbell O M R(2009). In many sub-Saharan African countries, rural areas have poor road networks, inadequate transportation and fewer health facilities compared to urban areas, making women from rural areas less likely to have access to health facility deliveries

2.4.3. Birth Order

A strong relationship has been shown to exist between birth order and utilization of MHCS (Kamal, 2009). Due to uncertainty and the perception of risk associated with first pregnancies, women are more likely to seek medical attention for first-order births than subsequent ones. Having a larger number of children may cause resource constraint, which has been found to be negatively associated with MHCS use.

2.4.4. Education

Research in developing countries has consistently shown maternal schooling to be strongly and positively associated with utilization of MHCS (Kamal, 2009). The higher a women's level of education the more likely she is to utilize MHCS.

2.4.5. Employment

The context within which women are employed influences their access to MHCS. It is generally assumed that women who are working and earning money will have better autonomy and the financial ability to pay for services. However, Miles-Doan & Brewster (1998) argue that this will also depend on the intrinsic characteristics of the job and not simply on its income-generating power. As a result of the contextual differences in women's employment, studies have presented mixed results in the association between employment and MHCS utilization.

2.5. Socio- demographic factors

Influence maternal care there is a general consensus that the use of maternal health care service reduces mothers and child mortality, and improve the reproductive health of women. Parity and maternal mortality are mutually correlated, but the direction of correlation depends on the type of services (Anwar et.al., 2004). The use ANC and delivery care declines with an increase in parity (Hivbret 2007, and Mills et.al., 2007) women having their first child were twice as likely to have facility based ANC compared to women having their fourth or more births. Similarly, low parity women were all most three times more likely than high parity women to deliver at a health facility. And both ANC and delivery care were less common among older women (Anwar et.al., 2004; Mills et.al., 2007).

Other studies also confirm the negative association between high parity and the likelihood of receiving ANC and giving birth in a medical institution (Bloom, 2001). The parity of women is influenced by their age first’s marriage those who may early will have a higher probability to be in the high parity than who marry latter. In the SNNPR region, 45 percent of women are married before age of 15 (wilder, 2007), the highest early marriage rate in the country.

Due to the above state problems, early married women may have a high probability of setting divorced. Studies in Ethiopia and other countries explain the effect of maternal status on utilization of MHC services; Widowed/divorced women were found to be more unlikely to attend MHCS compared to married women (Coren, 2003; Mengist et.al., 1960).

The number of living children determines women's utilization of MHC services. The more children at home, the more limited the women's mobility. Among women with more surviving children at the time of the pregnancy predicted antenatal care scores were lower than among others (Bloom et.al., 2001).

2.5.1 Knowledge of women and attitude in relation to cultural perspective

Perceived interpersonal quality of care overlaps to some extent with traditional beliefs and possibly sometimes with ethnic discrimination. The Concern about quality of services sometimes interacts with other barriers, for example with distance or cost. Perceived quality of services plays a major role in choice of place of delivery. In some areas women decided to go to private health facilities, where they pay instead of going to government health facilities which are closer to their homes and services are provided free.(Mrisho M 2007).

Community beliefs on health facilities delivery are important on the choice of place of delivery. In other places they believe that normal delivery should be conducted at home and delivery at health facilities are beneficial for those with complications only (women identified with problems and risk factors during antenatal clinic). The availability of delivery assistance by TBAs has been reported to be associated with non-utilization of a health facility for delivery in rural areas, Study conducted in northern part of Tanzania shows that traditional births attendants are the ones who determine the place of delivery among Masai tribe and they also arrange for the kind of diet required by the women after deliver, in order to improve health facilities deliveries TBAs must be involved, well informed and full participated.(Shankwaya S 2008, Magoma M 2010)

They believe that TBAs and relatives are affordable and able to meet their expectation during delivery and postpartum period, these services cannot provide at health facilities(Magoma M, 2010).Another findings by Mrisho in Tanzania shows that labor is kept secret because any complications develops it means the women is adulterous and remedy for that is to mention all

men have slept with her(Mrisho M 2007).In Zambia it is believed that placenta must be buried in certain manner for a women to continue bearing children, this is contrarily to health facilities where placenta is burned by incinerator (Shankwaya S 2008).

Different ethnicities have different cultural values and these cultural values may prevent women to access health facility for delivery. Knowing these values and addressing them in the community could improve delivery in health facilities, thought to be an important influence on health care-seeking and place of delivery. Assessment of quality of services is largely depends on personal experience with health system. (DuongD, 2004). Elements such as less waiting times, satisfaction with the service received – including staff friendliness, availability of supplies and waiting times are perceived as good quality. In many cases, the medical 'culture' may clash with the woman's, for example, when family members are not allowed to be present, supine birthing position is imposed or privacy not respected; this may lead to perceptions of poor quality (Thaddeus S 1994). Some studies mention that women report better quality of care in private facilities but that cost deters them from using those services. (Mrisho M 2007). Perceived interpersonal quality of care overlaps to some extent with traditional beliefs and possibly sometimes with ethnic discrimination. The Concern about quality of services sometimes interacts with other barriers, for example with distance or cost. Perceived quality of services plays a major role in choice of place of delivery.

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Other reports from Bangladesh and India came-up with similar finding (Fortney , 1996). About 53.3%of mother preferred to give birth in the presence of relatives, trust TBAs cultural reason and lack of money as reason for non-use of the service.

The use of modern health service is often influenced by individual perception of the women. A women's attitude towards her pregnancy and the presence of social support have been found to influence ANC use in developing countries (Stock . 1983).

A study revealed that women with low social support, who were younger more often single who had lower level of education and income have higher risk than those with adequate socials support (Jeker , 1994).

In Ethiopia studies addressing the factors influencing the utilization of maternity care services are scant. Few studies that do exist focused predominantly on major cities. An earlier community based study in Addis Ababa on maternal mortality found that women who did not have AMC were often those of high risk i.e. illiterate, had low level awareness of problems of child behaving, had low income and were unmarried (Fantahun . 1992).

The important factor in the utilization of maternal health care, especially in Africa is the cultural background of women. Women have less and unequal access to material and other resources; and their inability to make informed choice are the fundamental cause of maternal death and disability. A range of barriers related to women's powerlessness could harm them directly or by limiting their access to the services. This includes ignorance of good health practice as well as lack of awareness of danger sign during pregnancy (WHO, 1994).

In many parts of the world women's decision making is limited even in matter directly related to their own health (UNICEF, 1996). In Bangladesh it is usually the mother in law of the husbands who make decision to seek (or not seek) care (Khan, 1999).

2.5.2. The role of the husband

Because of women's lack of control over their own life, decision about women's use of MCH services are made by husbands or other member of the family (WHO, 1990: Abbas, 1986). For instance in Pakistan and other developing countries 2/3 of women delivered at home because of the husband's refusal to use the PADC in hospital (WHO, 1990, Kwast, 1992). This mostly common in many developing countries including Ethiopia. The tradition can severally limit women's ability to use even nearby health facilities (Bachman et.al 1997)

2.6. Accessibility and availability of health services

Accessibility of the health service has been identified to be one of influencing factor of the utilization of MHC service in developing countries (Melkamu , 2005). Studies made in Jordan and Iraq indicates that higher distance of place of residence from the service center significantly affects the use of MHC service. These studies shown that the proportion of non-users is higher for longer distance from the service center (Abbas , 1986 and Zerihun , 2009). The effect of distance is also found to be stronger in Pakistan (Islam and Tahir, 2002).

Satisfaction or dissatisfaction with the service received (e.g. effectiveness of the treatment remedies prescribed, staff attitude, long waiting time, hospital procedure, reliability of the supplies and efficiency) found to affect decision to seek care in developed and developing countries (Kloose H. et.al., 1987). Several studies found the negative relationship between waiting time and MHCs use (Hayelom, 2008).

2.7. Quality of health services

Quality of care is an important consideration in the to seek care. In a study in south west Ethiopia, multiple structural deficiencies were identified in all components of reproductive health care. Adequate amount of absolute minimum equipment is required for maternity and neonatal care was not available in many institutions (Berhane Y. 2000). A study on antenatal care service in North West of Ethiopia reported that 34.7% ANC attends had one or more high risk factors out of which 77.9% were identified by the health workers. Only 16.8% high risk were appointed earlier than the normal data (Fantahun M. Abue beker A and Assefa M. 2000).

During 2004, public and private sector were compared in health care female out-patient in south-central Asia. It was found that women get better care in the private health sector. They felt that's the quality of care was much better in the private sector both in terms of thoroughness of examination and communication between doctor and patient (Bhatia and Cleland 2004:402). Another study conducted in Sirilanka looked at the treatment seeking behavior of two poor urban communities for eight months. The private and public sectors were considered for health cares. The study conclude that there was unsatisfactory interpersonal care in the public sector necessitating the residents to seek service of the private providers who at times would be expensive but perceived to be offering so prior services with better customer care (Russrl 2005:139).

2.8. Need and perceived morbidity

Need factors, which refer to health status, perceived by the individual or evaluated by the health providers (Zenebe Molla. 2011). It is how people view their own general health and functional state, as well as how they experience the symptoms of illness, pain and worries about their health and whether or not the judge their problems to be sufficient important and magnitude to seek professional health care.

Finding from Ethiopia DHS (2005) indicated that the most important reasons for not seeking health care in Ethiopia was found to be concern that there may be not a health provider (81%) concern about getting money for treatment, concern that there may be not a female health provider, concern that having to take transport and concern that there may be not one to complete the house hold chores were cited by about seven in ten women. Distance to a health facility and not wanting to go alone are perceived as big problem by more than three in five women. Only one in three (35%) women perceived getting permission to go for treatment to be big problem 80% of women in rural areas perceived having to take transport as a big problem, compare with only 34 of women in urban area.

A study in *Hadiya* zone, SNNPRs revealed that ANC service utilization is significantly influenced by maternal age, mothers who are in the age groups of 25-29 years were less likely to utilize ANC service than women who are 35 years and older. Positive husband attitude toward ANC service was significantly related to antenatal care service utilization. Moreover, in this study the use of antenatal significantly related to mother's level education. Mother was primary

educational level were more likely to attend ANC than women who are unable to read and write. It was also observed that availability of women's time is important. In developing countries, women spend more time on their multiple responsibilities for care of children, collecting water or fuel, cooking, cleaning and trade than non their own health., furthermore, maternal education, age, husband attitude and family size and perceived with regard to the determinants of ANC morbidity were major predictors of ANC service utilization (Zeine, et.al., 2010).

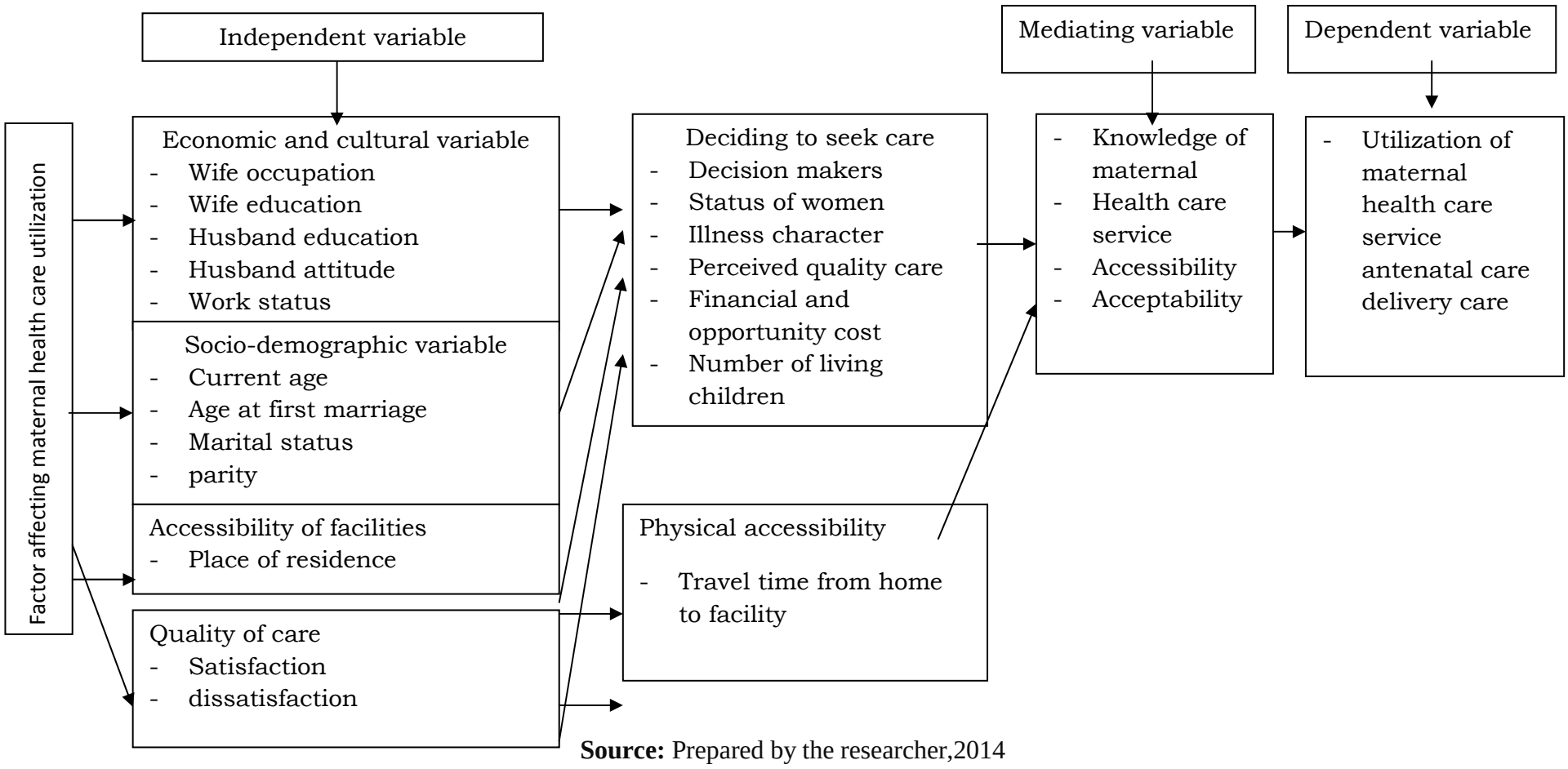
2.9. Health care provision in Ethiopia

Before 1992, Ethiopia's health service system was highly centralized with resources remaining heavily in Addis Ababa and some urban areas, with an emphasis on curative, hospital based care. Nevertheless, the majority of Ethiopia's population lives in rural areas were health coverage is very minimal in addition to diversified health problems. Considering the seriousness of the problem, the government understood construction of primary health in facilities at the lower administrative unit can at least minimize the situation (Collier et al 2002). Accordingly (MOH, WHO, et.al., 1999) primary health care units and their five satellite posts are intended to serve a total of 25000 populations located with 10km radius catchments areas. Next in district hospitals, each serving a population of 25000 and acting as a referral and training center for 10 primary health care units the regional hospitals will provide a specialized service and serve a population each and the specialized hospitals will provides comprehensive unitary specialists service and act as a center for research and post basic training (MOH, WHO, 1999).

Hadiya zone is one of the 14 zones in SNNPRS of Ethiopia. The Zone is administratively divided in two 11 *woredas* and 324 *kebeles* (the smallest administrative units). The health coverage of *Hadiya* zone is very low during the 2005/06 fiscal year, the zone had only 1 hospital,17 health center,17 special pharmacies,6 drug shops and 20 rural drug vendors for an estimated population about one and half million that is distributed in its 10 *woredas* that are connected by poorly developed road network. When it comes to health personal, the available data shows that zone had only 15 doctors in 2O06. This means the zone had roughly one doctor per 94,951/person in 1996/97E.C. Comparatively, the SNNPR as whole had roughly 1 doctor per 55,000 person during the same year(Solomon M.2008).This data shows that *Hadiya* zone is one of the lowest health coverage in the country and low maternal health care utilization in the region.

2.10. Conceptual Frame Work

Based on related literature the following conceptual framework is used in the study.



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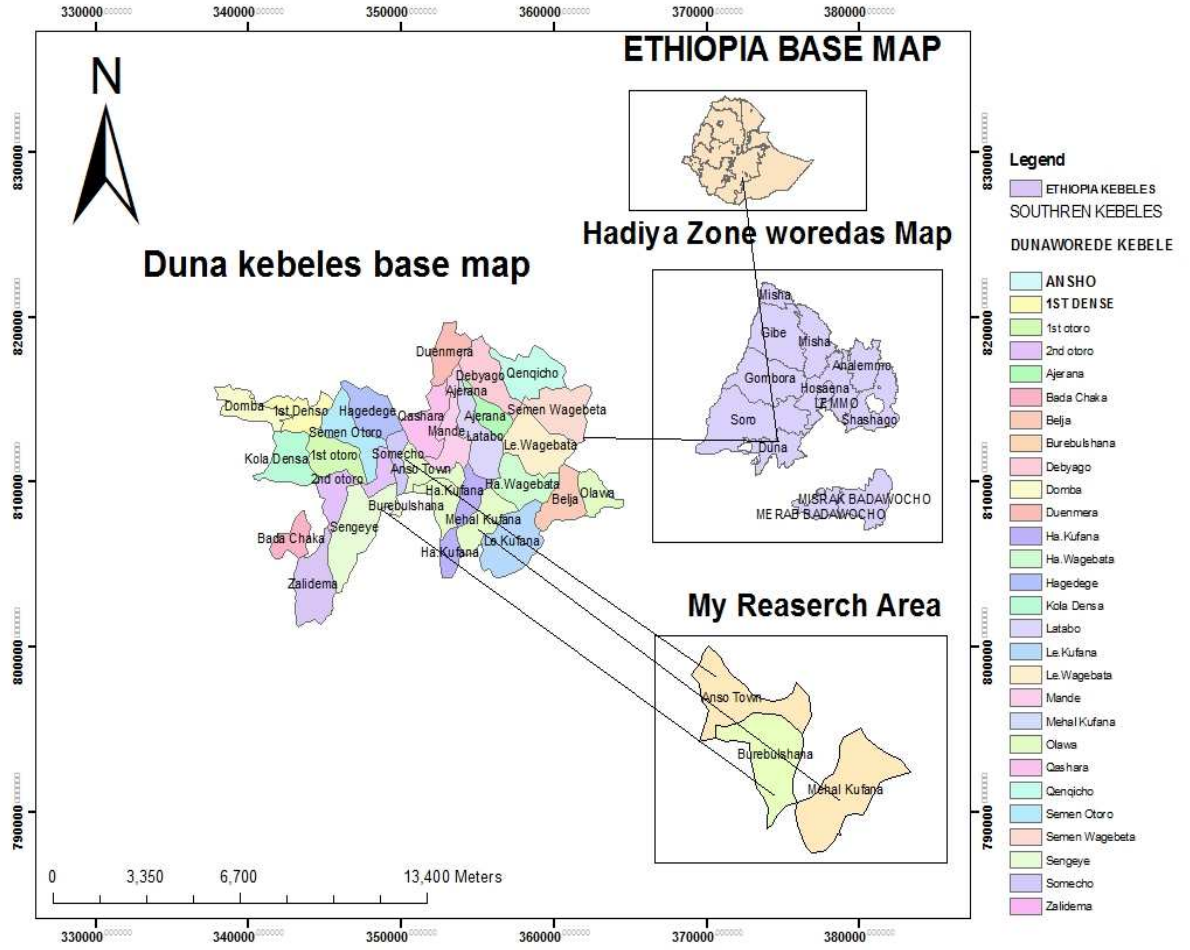
CHAPTER THREE

3. Research Design and Methodology

3.1. Map of the study area



source: prepared by the researcher ,2015.

Fig 3.1 Map of study area.

Hadiya zone is one of the 14 zones in SNNPRS of Ethiopia. The zone is located at around distance 232 kms south of Addis Ababa. The zone is geographically located in 7°3′19″-7°56′1″N and 37°33′14″-38°52′12″ E south west of SNNPR.The Zone is administratively divided in two 11 *woredas* and 324 *kebeles*[1] (the smallest administrative units). It is one of the most densely populated parts of Ethiopia. Its population reaches 1243776 (CSA 2007). By 2010 based on the census report projection, its population has increased to 1316962. Total areas of the Hadiya zone were 3850 square km and the population density is 342/square km. More than 90% of its population depends on agriculture for subsistence. Considering land use, out of the total area, 69% is cultivated, 7% grazing land, 6% forest and bush land, 2% cultivable, 7.22% non-cultivable and 8.78% used for non-agricultural activities, settlement, marshy and swampy areas and rivers (HZFED 2008).

The health coverage of Hadiya zone is very low during the 2005/06 fiscal year, the zone had only 1 hospital,17 health *center*,17 special pharmacies,6 drug shops and 20 rural drug vendors for an estimated population about one and half million that is distributed in its 10 *woredas* that are connected by poorly developed road network. When it comes to health personal, the available data shows that zone had only 15 doctors in 2O06. This means the zone had roughly one doctor per 94,951/person in 1996/97E.C. Comparatively, the SNNPR as whole had roughly 1 doctor per 55,000 person during the same year(Solomon .2008).This data shows that Hadiya zone is one of the lowest health coverage in the country and low maternal health care utilization in the region.

[1] The smallest administrative unit in the woreda(sub division of woreda)

Duna woreda was one of the 10 *woredas* of the Hadiy*a* Zone, found in SNNPR. The *woreda* is comprised of 1 urban and 31 rural kebeles. The study area was 42km far from the Hosanna town (the capital of Hadiya zone). The total population of the *woreda* was 133,006 Out of this, 65406 male and 67600 were females (Duna *woreda* annual report of, 2013). Total area of Duna *Woreda* was 350 square km and the population densities were 380 person/square km. This can tell us how the population pressure on land is high in the study area in Duna Woreda Wadiya zone. Besides more than 95% of its population depends on agriculture for subsistence of life. The statistical evidence from (DWFEO, 2013) shows that there is high number of young age population in rural areas with high demand for farm land. Regardless of the small proportion of the cultivable land in the study area, the population, particularly young population that demands the farm land is proportionally high. The *woreda* is the fourth administration level from top-down in Ethiopian government structure. It is further divided in to *kebeles* which are the lowest political administration units.

The *woreda* was characterized by inadequate health facilities because of shortage of infrastructure and rugged topography. These are 5 health clinics and 32 health posts own by the government and 1 clinic owned by private. There is no government or private owned hospital in the Woreda. The health professionals of the *Woreda* were 50 health extension worker, 3 health officers, 60 nurses, 5 pharmacist, 6 laboratory technicians. There are no medical doctors in the study area. The overall health coverage of the woreda is 57% while that of the zonal are 62% of that zone (Duna *Woreda* annual report of 2013). This inadequate quality of the health service has a negative impact on the health condition of the people of the Duna *Woreda*.

3.1.1. Climate

The *woreda* consists of *Dega*, *woina Dega* and *Qolla* agro-ecological zone and its mean annual rainfall is 1196.22mm.The temperature range from 10^0c to 18o 18^0c in a wet season and 20o $20c^0$ to $25c^0$ in a dry season. The *highest* rainfall is recorded in July and August and the lowest is in between December and February (Mulugeta, A. 2001).

3.1.2. Topography

Duna is found at the southern edge of the western plateau of the physiographic region (Mulugeta, 2001, P4).The elevation within the wore*d*a ranges from 2,970m mean sea level *Sengiye* and

1000m mean sea level at the wagabata above. The average elevation of the woreda is taken as to be 1985m from the mean sea level.

3.1.3. Study population

Target population for the study is those women in reproductive age (15-49) who have given at least one birth in the past three years.

Inclusion and exclusion criteria to the study population

Inclusion criteria

- All women of married age (15-49 years)
- Married women who have given birth in the previous 3 years.
- Those who have permanent residence in the study area.

Exclusion criteria

- All unmarried women age (15-49 years)
- Women age (15-49) who have not given birth in the previous three tears.
- Women who are not permanently residing in the study area.

3.2. Study design

Cross sectional community based survey was conducted in the area to collect relevant data from the target women.

3.3. Source and methods of data collection

3.3.1. Source of data

Both primary and secondary source of data are used in this study. Primary data was collected by using structured questionnaire and FGD guide questions which are prepared in English and then translated in to Amharic language. Published and unpublished materials like books, journals area specific health service report like *Duna* Health Office was the sources of secondary data. The source population was all women residing in the 32 *kebeles* in the study area. Of these, eligible (target) population was all women in the reproductive age whose recent birth occurred within the last three years survey. This relatively recent time frame is chosen to limit problem of recall bias.

3.3.2. Methods of data collection

Both quantitative and quantitative data was collected through interview using structural questionnaire.

3.3.3. Measuring instrument

After reviewing of relevant literature, variable that could address the objective of the study were gathered from previous similar studies and other materials. After extensive revision, the final version of the English questionnaire was developed. An individual who has a very good ability of both English and Amharic language translated the final Amharic version of the questionnaire back to English to check with the first for any inconsistency or distortion in the meaning of words and in the content of the instrument.

3.3.4. Data collection processes

A structured and pre-tested questionnaire which is first prepared interviewers who have completed 10^{th} and 12^{th} grades in English and translated to Amharic language is used to collect the quantitative data by 10^{th} and 12^{th} grade completed interviewers (5 females and 5 males) and 6 nurse supervisors 2 male and 3 female) who are fluent speakers of the local *Hadiya* and Amharic language was given a through training on the interview techniques and the questionnaire for four day before data collection.

The questionnaire was administered to mothers aged 15-49 who have at least a child within three years preceding the survey. The was checked using range and consistency check methods. The researches witnessed, re-interview a sample of respondents and check as many filled of questionnaire as possible each day in all selected sites.

Pre-test

The pre-test of the questionnaire was carried out in one of the *kebeles* which is not selected for the study *woreda* outside of the selected *kebeles* that has similar socio-demographic and agro-climatic characteristics with the people. A total of 20 respondents. Both the interviews and supervisors assessed clarity, understandability and completeness of the questions, and the others.

3.4. Sample size

The sample size determination by using Carvalho`s (1984) sample size estimation rule. That is the maximum proposed sample size population in a range of 501-1200 determined sample size is 130. Therefore, in selected kebeles from total of 1190 household heads, 130 household heads were selected.

Name of woreda	Total kebeles	Sample kebeles	Total eligable households in sample kebeles	Percentage share of household from the total
Duna	32	Ansho	450	38%
		Bure-Buleshana	360	30%
		Mahale Kuffana	380	32%
		Total	1190	100%

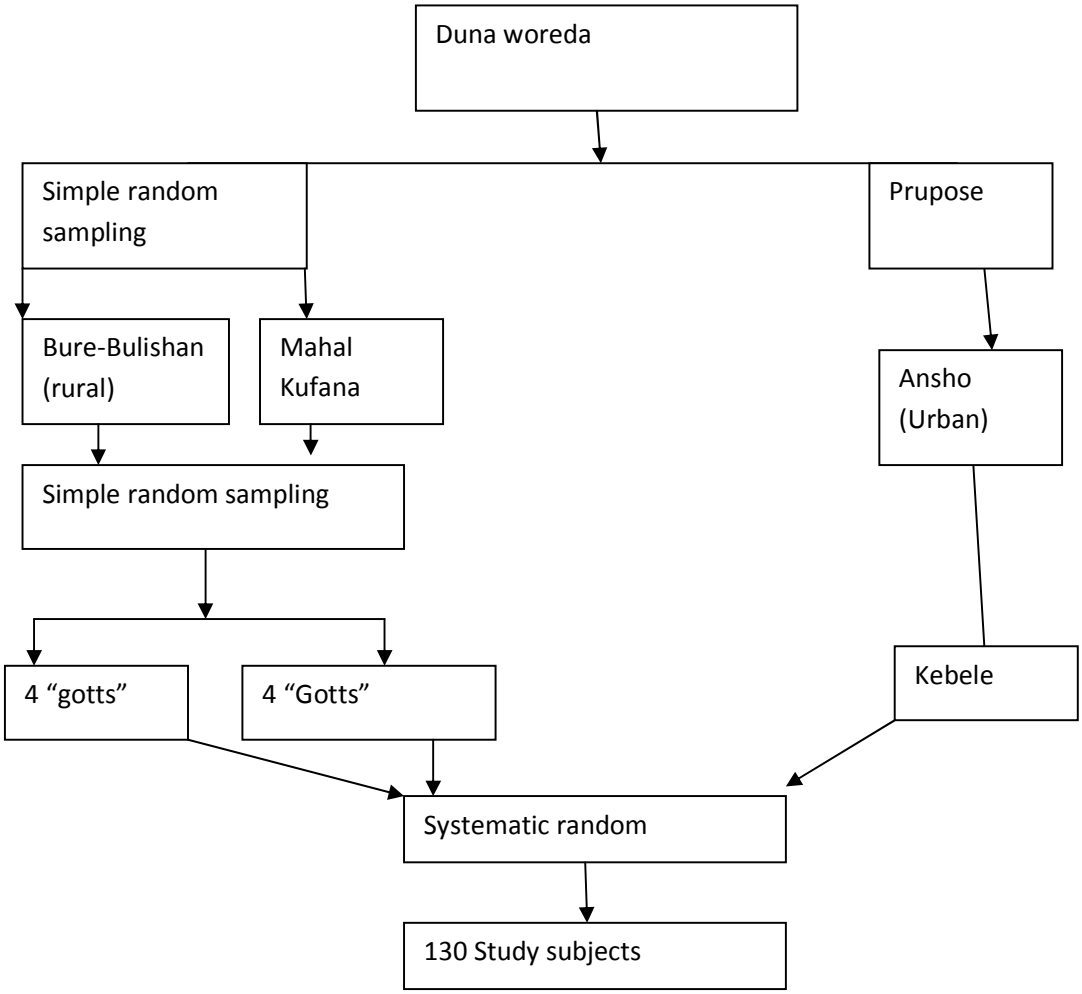
Table 3.1 the number of households and sample drown in each kebeles.

3.4.1. Sampling procedures

According to SNPR Regional Statistics Abstract (2013) a total of 13,500 reproductive age of women (15-49) were living in the Duna . In each kebele an average of 300-450 reproductive age groups of women was living. A multi-stage sampling technique applied to select the study subject in the study area. In the study area, there are 31 rural and one urban kebeles are found. First, three kebeles were selected (one from urban and two from rural).two rural kebeles namely Mahal Kuffana and Bure Bulishana were selected using simple random sampling methods and Ansho town(the only urban kebele) was selected purposefully . So as to see whether some independent variables rural and urban residents or not .The second step was there are 12 Gotts in the selected rural kebeles, 4 Gotts were selected from each kebeles by using simple random sampling. The third step households were visited to select a list of households with eligible women among the selected gotts. Using sampling frame,10% of eligible women are included from each selected gotts.

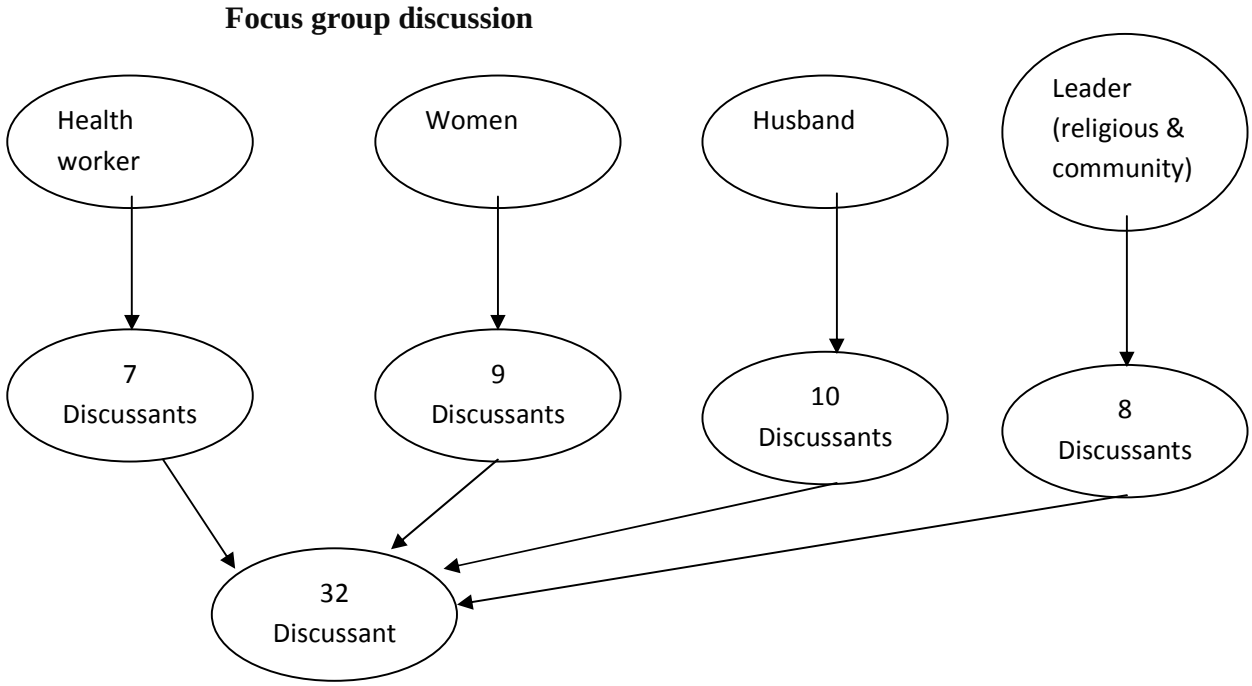
Finally, 130 eligible respondents were made to be included from both rural and urban in the study by using systematic random sampling.

Figure 3.2: schematic presentation of sampling procedure for quantitative method.



3.5. Focus group discussion

For the qualitative data the kebeles administrator, the head of the district desk, and the supervisors, with principal investigator were used to identify eligible discussant. A total of four and FGD each holding 7 to 10 discussants was carried out. FGD discussion was conducted with women age 15-49 years, health workers, religious and community leaders and husbands separately to get in depth information on key issues by insuring homogeneity. Awareness about utilization of ANC and delivery care services and the main reasons for the non-utilization was the main issues discussed during the FGD.



Focus group discussion is the qualitative data which support quantitative data. The interviewers, supervisors and the principal investigator were discussed in the results. The feedback is obtained from the pretest and contributes much to the improvement of the questionnaire.

3.6. Monitoring of data collection

During the actual data collection data collectors were assigned for each supervisor. The supervisors checked the activities of each data collector by walking with them in each kebele and sometimes –random spot-checking of the households to ensure reliability of the data clarity and proper identification of the respondents and feedback to the data collectors in the next morning before the actual procedure. The researcher randomly checked at least 6% of the supervisors' work each day for completeness and relevancies.

3.7. Ethical consideration

The objective of the study is explained to the identified study subject. They were that briefly that any information concerning them will never be passed to any individual or institution without their agreement. And women are kindly requested to be part of the study but also been inform that it is their right to reject completely to participate or to stop at any time in the process. The

researcher at the end intends to submit a copy of research result to the woreda health office that enables them to undertake interviewers and supervisors on (data collection procedures, and proper categorization and coding of the questionnaire) are believed to enhance quality of data. To ensure anonymity was assure that they were not required to write their names on the questionnaire. This would ensure that the respondents are anonymous. Anonym it will occur when the researcher cannot link a participant with the data for that person.

3.8. Method of data analysis

Both descriptive and inferential statistical methods was used in the analysis of the data using text form, tables, bar graphs, pie chart, univariate, frequency and percentage were used in the descriptive analysis part which identifies the important factors that influence the utilization of maternal health care services while in inferential methods bi-variate methods will be identified, the important factors that influence the utilization of maternal health care service including the chi-square test whether there is an association between use of maternal health care services and the independent variable.

CHAPTER FOUR

4. Data Analysis and Interpretation of ANC Results And Discussion

In this study a total of 130 women with age group 15-49 year who delivered within three years before the survey were interviewed from the three *Kebeles* of *Duna Woreda* in Hadiya zone. All eligible women in the selected sample responded to the questionnaire,

4.1. socio- Demographic characteristics of the respondents

The largest study group was in the in the age group 20-34(50%) years, with a mean age of 27.8+ . About (30%) in the study area, the respondents were illiterate.(31.5%)had completed secondary high school and higher education. According to (Yang. 2010) education is the best determents of utilization of ANC service. His finding shows that educated women were more likely **to** receive ANC than those who had no education. Low education of pregnant women and unwanted pregnancy were barriers to use of prenatal care service. Additional barriers were negative attitude towards pregnancy and attitude towards prenatal care (Erci, 2003).

Out of the total respondents (14.6%) were living in the urban area and the majority of the women (85.4%) were living in the rural area. This show that majority of respondents living rural area rather than urban. Different studies demonstrate that a rural women use less antenatal care service than urban women. The women living rural area cannot use antenatal care service because of transport problem, lack of education and awareness, economic and other problems. (Monica,2003).Also other in many sub-Saharan African countries shows that rural areas have poor road networks, inadequate transportation and fewer health facilities compared to urban areas, making women from rural areas less likely to have access to health facility deliveries (Yvonne.S 2010)

With regard to religion and ethnicity, the majority of total respondents were Protestant accounting for (96%) while only 4% of them were Orthodox Christians and others. The majority ethnic group in the study area were Hadiya accounting for about (96%) of the respondents and the rest 4% were from the different ethnic groups include Kambata , Timbaro and others.

Educational status of respondents in the study area, the majority52.3%was primary education complete, 40% illiterate and 15.3 %were complete secondary education and above. This shows that majority respondents were complete primary education and a few respondents were secondary education completed in the study area. About 80.8% of the respondents were house wives 11.5% were farmers 5.4% were the civil servants and 2.3% of the them were traders. The main reason why most of the women were house wife was the fact that most of them were uneducated and living in rural areas. Concerning respondents husband occupation 50% were farmers, while 38.5% were traders and 11.5% were civil servants. This show that majority of the respondents in the study area were depend on agriculture. With regard to husband education, majority of husbands 61.5% has completed primary education (1-8) and the reaming 15.4% and 23.1% were illiterate and secondary school respectively. This indicates that most of the respondent husbands were completed primary school.

According to the family size of the women in the study area tends to the larger family. The majorityt of the respondents 50% of the women had 4-6 family size while 38.4%had below 4 family and11.5% been above seven family sizes. This indicates that most of the respondents in the study area were large family size. Regarding to the family planning from out of the total respondents 97% was not use family planning and only 3% of the total respondents use family planning.

Similar studies indicate that family size was a strong determinant of antenatal care service utilization. Mothers who live within house size less than three people were more likely to use antenatal care service than those living in a house hold size greater than five. Furthermore, maternal education, and age, husband attitude, and family size perceived with regard to the determinants of ANC morbidity were major predictor of ANC service utilizations (Zeine. et al 2010)

Table 4.1 socio-demographic characteristics of the women respondents

Variance		Frequency	Percent
Resident	Rural	111	85.4
	Urban	19	14.6
	Total	**130**	**100**
Age at first marriage	45-19	40	31
	20-34	65	50
	35+	25	19
	Total	**130**	**100**
Current Marital status	Married	120	92.3
	Others	10	7.7
	Total	**130**	**100**
Ethnicity	Hadiya	125	92.3
	Others	5	7.7
	Total	**130**	**100**
	Primary(1-8)	41	31.5
	Secondary and	20	15.5
	Total	**130**	**100**
Religion	Protestant	125	96
	Orthodox	5	4
	Total	**130**	**100**
Husband Education	Illiterate	20	15.4
	Primary	80	61.5
	Secondary	30	23.1
	Total	**130**	**100**
Husband Occupation	Farmer	65	50
	Civil servants	15	11.5
	Others (trade)	50	38.5
	Total	**130**	**100**
Women education	**I**lliterate	52	40
	Primary(1-8)	68	52.3
	2a above	20	15.3
	Total	**130**	**100**
Women Occupation	House wives	105	80.8
	Farmer	15	15.5
	Civil servants	7	5.4
	Others	3	2.3
	Total	**130**	**100**
Family size	1=3	50	38.5
	4-6	65	50
	7-7	15	11.5
	Total	**130**	**100**
Family planning	use family planning	4	3
	Not use	126	97%
	Total	**130**	**100**

Source own field survey, 2014

4.2. Obstetric Characteristics of the Respondents.

Table 4.2 obstetrics characteristics of the respondents in the duna *woreda* in Hadiya Zone in 2014

Variables		Number (n=130)	Percent%
Age at first marriage	<15-20	76	58.4
	21-25	34	26.1
	25+	20	15.1
	Total	**130**	**100**
Number of live birth	0	4	3
	1	25	19.2
	2-6	75	57.6
	>7	26	20
	Total	**130**	**100**
Intended Pregnancy	No	120	78.4
	Yes	28	22.6
	Total	**130**	**100**
Parity	1-4	40	30.7
	5-7	60	46.1
	8+	30	23
	Total	**130**	**100**
Even had abortion	No	105	80.7
	Yes	25	19.3
	Total	**130**	**100**
Even had infant death	No	104	80
	Ye	26	20
	Total	**130**	**100**

Source own field of study, 2014

Table 4.2 above, from all respondents 23% of women responded that their last pregnancy has been planned and almost 78.4% of women responded that their last pregnancy has not been planned. Regarding to the age of marriage the majority of the respondents 54.6 % were married below the age 20 years with mean age at ±2.5years. Regarding to the number of live birth majority of the respondents 57% was 2-6 birth. This indicated that majority of the women married in young age because of a little awareness about education and other related problems.

Also Similar studies indicate that a number of socio- demographic characteristics of the individuals affect the underlying tendency to seek care. In this regard, good examples are maternal age, parity, Low educational attainment and family income, which have been repeatedly examined as determinants of heath care use .In regard to maternal age, the young age more likely to use ANC than old age women (Talia M.2004 and Bimal Kantl Pual, 2002).

The largest number of respondents (80.7%) had no abortion problem, the rest 19.3% of the respondents were responded that there was the problem of abortion. According to infant death 22.6% had the problem of infant death and 78.4% were no problem of infant death. This indicates that abortion and infant death rate are greater than the world standard of 25% and 14% of infant deaths and abortion respectively (WHO, 2010).

4.3. Socio- Economic Characteristics of Women Respondents

Table 4.3. Socio-Economic characteristics of respondents

Variable		Number(n-130)	Percent (%)
Women occupation	Civil servant	7	5.4
	House wives	105	80.8
	Farmers	15	11.5
	Others	3	2.3
	Total	**130**	**100**
Husbands occupation	Civil servant	20	15.3
	Farmers	95	73
	Traders	14	10.76
	Others	1	0.7
	Total	**130**	**100**
House hold income;	<300	50	38.4
	400-600	65	50
	700-1000	10	7.6
	1000+	5	3.8
	Total	**130**	**100**
Living standard	Low	100	76.9
	High	2	1.5
	Medium	28	21.5
	Total	**130**	**100**
Access to media	No exposure	55	42.3
	TV/Radio/Newspaper	75	57.7
	Total		**100**

Source: own field of survey, 2014

Socio- economic characteristics of women respondents in the above table 4.3 indicate that, majority of household income 50% were between 400-600 birr per month. Regarding to the respondents, living standards, most of the women were earned low income 76.9%. Regarding to the women occupation, the most of the respondents were house wives 80.8% and followed by farmers 15.3%. The majority of their husband occupation was famers 73%. This indicates that the most of the women income and living standard were low in the study area.

Similar study reveal that women in higher socio-economic groups tends to exhibit pattern of more frequent use of maternal health care service than women in low socio-economic groups (Malkamu Fanta,2005). Also occupation of mother was an important predictor for the utilization of antenatal care services in the study area. In general, women with no formal job were less likely to use antenatal care services as compared to house wives. This result was consistent with previous study in Ethiopia and south India state (CSA, 2000, WHO, 2001). Not working women were expected to have lower control over resources in the house hold. They are less likely to use knowledge about pregnancy and child birth due to lesser freedom of movement outside the house hold and less likely to seek information in service available for pregnancy care. To the contrary, it's also argued that women works in developing countries are often poverty induced and there for likely to have negative impact on the use of their health care services as it involves opportunity and monetary costs.

4.4. Antenatal Care Service

4.4.1 Respondent perception on the quality of the ANC service.

Table 4.4 Show that the respondent perception of the quality of ANC service.

Variable	Responses	ANC uses	ANC non use	total	Percent
Lack of privacy at ANC service	Yes	25	30	55	42.3
	No	60	15	75	57.7
	Total	**85**	**45**	**130**	**100**
Behavior of workers	Very good	18	5	23	17
	Good	50	35	85	65
	Fair	7	15	22	18
	Total	**57**	**55**	**130**	**100**
Length of waiting time	Short	30	15	45	34.5
	Fair	40	20	60	45.5
	Long	10	25	35	22.9
	Total	**80**	**50**	**130**	**100**
Confidence of ANC	Yes	60	20	80	61.5
	No	40	10	50	39.5
	Total	**100**	**30**	**130**	**100**
Quality of ANC	Good	12	12	24	18.4
	satisfactory	18	15	33	25.3
	poor	65	8	75	56.1
	Total	**95**	**35**	**130**	**100**

Source: own field of survey 2014

Table 4.4 above indicates that general respondent perception on the quality of the ANC service. From the total respondents 45.8% 0f women considered that fair of waiting time, and 22.9% as said short. About 57.7% 0f the respondents believed that there was privacy problem .privacy clinics are good embracers of their customers or users of ANC service rather than government clinic. Respondents also asked for the quality of ANC service and 56.1% women said poor and 18.4% said fair, the respondents demonstrate that absolute minimum equipment were one of the factors for poor quality of service. The similar studies reveal that, quality of ANC is an important consideration in decision to seek care. In a study south west Ethiopia, multiple structural deficiencies were identified in all components of reproductive health care. Adequate

amount of absolute minimum equipment were required maternity and neonatal cares were not available in many institution (BerhaneY, 2000). A study on ANC service in North West of Ethiopia reported that 34.7%ANC attendees had one or more risk factors out of which 77.9% were identified by the health workers. Only 16.8% high risk mothers were appointed earlier than the "normal dates" (Fantahun M, 2000).

4.4.2. Timing and number of ANC visit

Timing and number of and ANC visit that can be determinants of maternal health care service. The women who continuously visit ANC services are more advantageous than the women who do not visit of ANC services .As different studies documents' that continuously visit ANC and delivery care services were better and effective for mothers and child health care. Timing and number of ANC visit in the study area can be shown in 4.5 below.

Variables		Frequency	Percent(%)
Timing of ANC Visit	1st trimester	30	50
	2 trimester	20	33.3
	3rd Trimester	15	16.7
	Total	**60**	**100**
Received ANC	Yes	60	46.1
	No	70	53.9
	Total	**130**	**100**
Frequency of ANC Follow up	Time	N=60	Percent%
	One time	8	13.3
	Three time	25	41
	Four time and	16	26.6
	Above	11	18.3
	Total	**60**	**100**
Status of tetanus Vaccine	Yes	40	58.3
	No	20	41.7
	Total	**60**	**100**
Number tetanus Vaccine	One time	40	66.6
	Two time	20	33.4
	Total	**60**	**100**
Health education during ANC	Yes	28	46.7
	No	32	53.3
	Total	**60**	**100**

Source : own field survey 2014

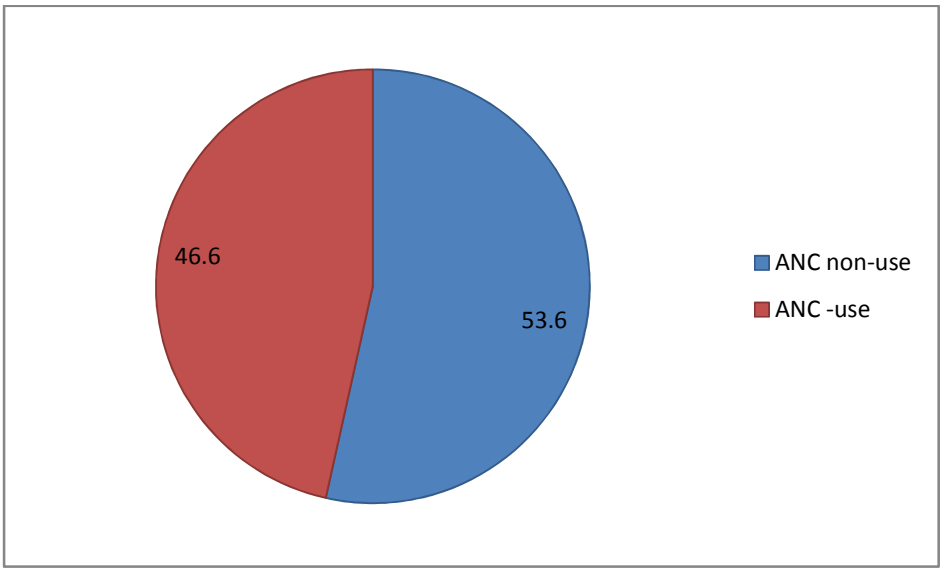
Table 4.5. Timing and number of respondents on ANC visit in Duna Woreda

As to table 4.5 above shows that Timing and ANC visit affect maternal health care service in the study area. As different studies documented that for better and efficiency of ANC, at least four ANC along with early first visit are recommended. Thus, the number and timing of ANC visit can be a factor in its effectiveness'. Table 4.5 shows that the percentage distribution of women by duration of pregnancy when the first visit were occurred. Among the women who received ANC, the majority of the women 50% made their 1st in the 1st trimester and 33.3% of them even made their 2nd trimester. But only 16.6% of them received 3rd trimester. Regarding to the respondent receive ANC the majority of respondents 53.9% cannot received.

In general, majority of respondents 41% had follow up ANC two time and only 18.3% respondents follow up ANC four and above time .out of total care attendance 58.3% had got TT vaccine. Form ANC user the majority 53.3% had not received education during any visit.

4.4.3 Antenatal care utilization level

Antenatal care utilization level of study area, 60(46.1%) had at least one antenatal visit during their last pregnancy within three year before the survey. While 70(53.9%) had none. The finding demonstrate that majority of women in the study area cannot use antenatal care service .This study finding is consistent with as observed in (EDHS,2005) only 28%of mothers received antenatal care from heath professional for their most recent birth (CSA and ORC macro,2006). However, in Ethiopia the proportion of mother attending ANC was low even for women with access to the service. The number of previous pregnancies is an important determinant for utilization of ANC service. In this study and it is consistent with study done in India (Addai I, 1998). Lower utilization of maternal care service among higher gravity (multi parious) women could be due to time and resource constraints faced by those with large families and greater experience of higher parity women with pregnancy and child birth.



Source: Field survey, 2014.

4.4.4 Reason for non –use of ANC

The non –use of ANC service of the study population sample was asked reason for their non-attendances of the service as it shown in the table 4.6. The survey found the important reasons non-attendance of ANC service was as follows. I was healthy for 42.8%, have no idea 24.2% too busy 8.5% and financial constraints and husband's disproval share 2.3%

variable	Frequency	Percent%	Valid percent
Being too busy	6	4.61	8.5
I was healthy	30	23.1	42.8
Long distance	10	7.63	14.2
Financial problem	5	3.8	7.1
Husband disapproval	2	1.5	2.8
I have no idea about it	17	13.2	24.2
Total	70	53.9	100

Source own survey, 2014.

Table 4.6 Reason for non –we of ANC (multiple response were possible)

As it is indicated in the above table 4.6 reason not to use ANC service in the *woreda* was found I was health 42.8% .This indicate that, primary reason for non- attendance were too busy, lack of

awareness or I have no idea about it 24.2% for the majority of the women followed by long distance14.2%. This shows that majority of respondents in the study area had no idea or awareness about ANC use or lack understanding of the nature and importance of ANC and delivery care services.

Another study in Addis Ababa showed that lack of awareness, absence of illness are major reason for not- attending care (Fantahun.M,2005). This study also assessed women's reason for ANC non- attendance the most frequent reasons given by the individual and through FGD and found for non- attending of ANC and delivery care services were lack of awareness about ANC, apparently heath , distant health services, work over load , male health workers attendant, lack of privacy and unfriendly healthy workers who were not committed to thei work at heath facilities and others. This indicates that lack understanding of the nature and importance of ANC and delivery care services. The finding of the quantitative part of this study was consistent in the focus group discussion and previous studies in Ethiopia and elsewhere. Another interesting finding came up during the focus group discussion factors related to non-attendance for ANC. Previous on studies in Ethiopia indicate that the primary reason for non-attendance were too busy, lack of awareness and being apparently of health, which was the case in the quantitative part of the study.

4.4.5 Respondents' Knowledge attitude of ANC services

The knowledge/attitude of the study population sample was asked to identify their knowledge and attitude about ANC service. As it shown in the table 4.7 below.

Variable		*Frequency*	*Percent*
Benefit of ANC cheek-up	*Maternal health*	*15*	*11.5*
	Child health	*10*	*8*
	Both	*105*	*80.6*
	Total	***130***	***100***
Place of ANC follow up	*Hospital*		*-*
	health center	*70*	*53.8*
	Clinics	*60*	*46.2*
	Total	***130***	***100***
Source of ANC information	*Health institution*	*65*	*50*
	Radio/TV	*15*	*3.8*
	TBA	*41*	*31.5*
	Health provider	*29*	*22.3*
*Main reason to start ANC for the first time (**ANC user N=60**)*	*Because illness*	*38*	*63.3*
	To start regular check-up	*12*	*36.7*
	Total	***60***	***100***
Husband attitude	*Positive*	*77*	*59.2*
	Negative	*32*	*24.6*
	Don't known	*21*	*16.2*
	Total	***130***	***100***
Knowledge of dangerous heath problem related ANC	*Yes*	*92*	*70.7*
	No	*38*	*29.3*
	Total	***130***	***100***

Source own survey, 2014

Table 4.7 Respondents' knowledge/ attitude of ANC services in the study area

The above table 4.7 indicated that among ANC users and non-users, the majority 80% reported that ANC cheek up has benefit to the health of both mothers and children and none of the respondents follow up ANC at hospital because there was no any hospital in the *Duna woreda* or study area. The majority 70.7% have the knowledge of dangerous heath problem during pregnancy. Regarding the source of information about ANC service 50.8% mentioned as main source of information for ANC service was health institution. The finding demonstrates that majority respondents have got the information for ANC service from health institution.

The ANC users have given different reason for initiating ANC visit for the first time. Among the several reasons given 36.7% were for medical check-up and regular follow-up 63.3% were mentioned that were the causes for to start ANC service. Regarding the husband's attitude towards ANC service 59% of husbands had positive attitude towards ANC and delivery care service (Table 4.7).

The similar finding demonstrate that the important factor in the utilization of maternal health care services, especially in sub Saharan-Africa is the cultural back ground of the women were barriers related to women's powerlessness could harm their heath directly or by limiting their access to the services. This includes ignorance of good heath practices, as well as lack of awareness of danger sign during pregnancy or misinterpretations. Also many women in developing countries need a husband's permission to visit a health facility or must be accompanied, particularly when the husbands are away from home. This tradition can severally limit women's ability to use even nearby health facilities (Bachman et.al 1997, Bihatu.J 1998)

4.4.6 The women residence and ANC service utilization

The women residents and ANC service utilization in the study area shown below in the table 4.8

Women residence	Selected respondents	ANC users	Non-users
rural	111	46(%)	65(%)
urban	19	15(79%)	4(%2)

Table 4.7 above shows that women residence and ANC service utilization .

The women resident was the most important factor for less utilization of ANC service in the study area. From total rural respondents 46(32%) were use ANC utilization and 65(58%) were non use ANC service in the study area. And from total rural respondents 15(79%) were use ANC service and 4(21%) were non use. This shows that majority of non users of ANC service were living in the rural area rather than urban in the study area due to that in the rural area poor road construction, distance from health center ,low education and lack of awareness . Similar studies demonstrate that a rural women use less antenatal care service than urban women. The

women living rural area cannot use antenatal care service because of transport problem, lack of education and awareness, economic and other problems. (Monica et al.2003).Also other in many sub-Saharan African countries shows that rural areas have poor road networks, inadequate transportation and fewer health facilities compared to urban areas, making women from rural areas less likely to have access to health facility deliveries (Yvonne.S 2010)

4.4.7 Place of service provision

In the place of the service provision the sample population and the study area are mentioned below figure 4.2

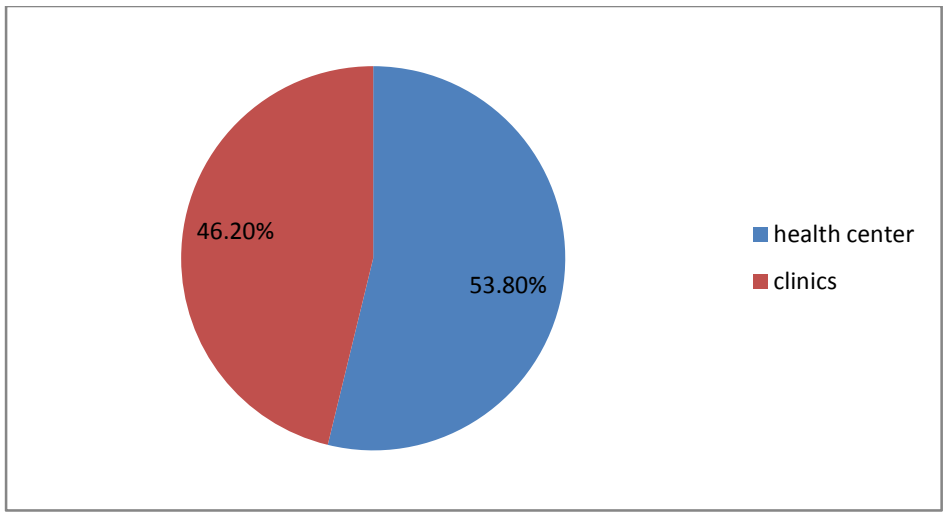


Figure 4.2, place of service provision.
Source: field survey of 2014

The majority of women 53.8% attended the ANC service in the health center by health extension workers but the rest almost 46.2% of women received in clinics and others. The finding shows that majority of women 53.8% followed antenatal care service in the health center.

4.4.8 Antenatal care providers.

Antennal acre service provider in the study area mentioned in the fig 4.3

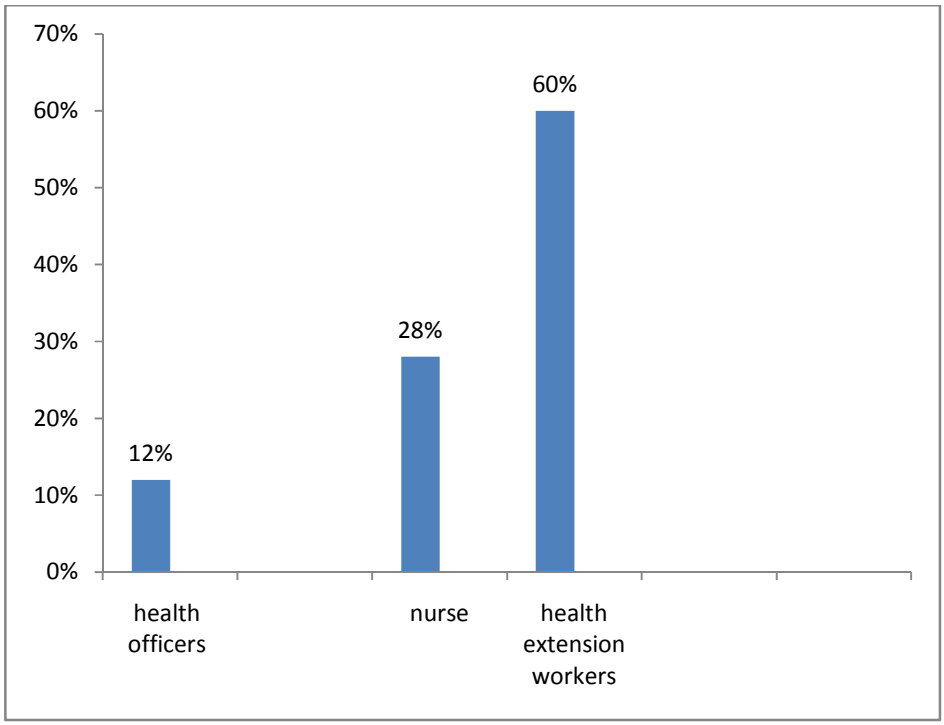


Figure 4.3 Antenatal care providers
Source: Own field survey, 2014

As it is shown fig 4.3 the health extension workers were the important attendant of ANC providers for the majority of women in the study area. About 60% of women receive antenatal care services from heath extension workers. The nurse provided for 28.4% of women but only less than 12% women were provided the service by heath officers and others. This showed that majority (60%) of women received antenatal care service from heath extension worker in the study area.

4.4.9 Reason for choice of Health Institution for Antenatal care Attendance.

The respondent's reasons for choice of heath Institution for antenatal care attendance in *Duna woreda* are indicated in the figure 4.4 as follow.

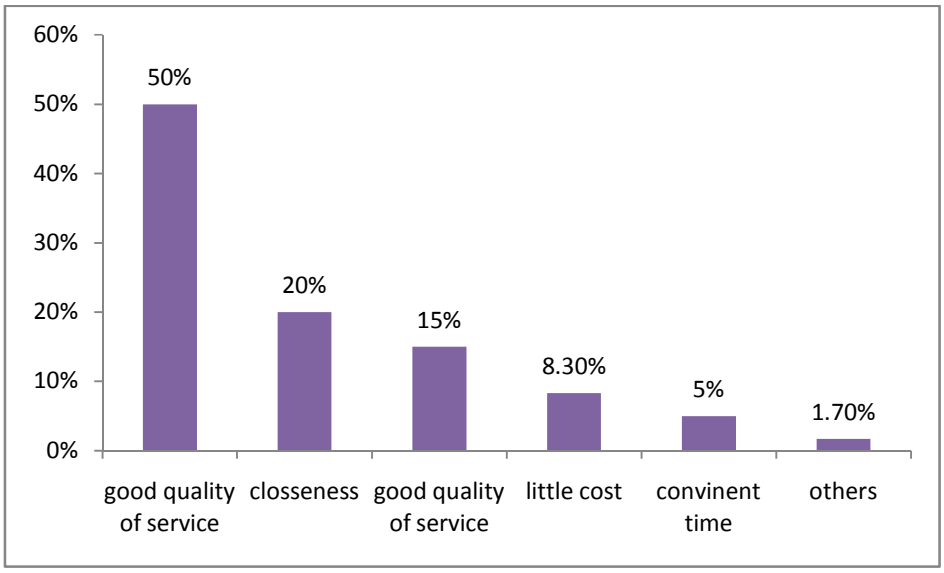


Fig 4.4 Reason for choice of health intuition for ANC service

Source: field survey of 2014

Those women who attend antenatal care in health centers were asked the reason for choice of heath institution care attendance. Regarding the respondents 30(50%) had said good quality services, 12(20%) were closeness, 9(15%) were good quality heath workers, 5 (8.3%) were little cost 3 (5%) were convenient time. The most frequent reason for choosing health institution for ANC attendance was good quality of service 30 (50%) (See fig 4.4)

4.4.10 Health service factors.

The health service factors are most important factors that affect ANC service in the study area as mention 4.8 below

Variable		Frequency	Percent
Payment for ANC	Yes	15	25
	No	45	75
	Total	**60**	**100**
Perception of payment for ANC	Unaffordable	1	6.7
	Fair	4	26.6
	Very small	10	66.7
	Total	**15**	**100**
Average time spent from home to health facllity	Less than an hour	54	41
	1-2 hour	70	53.8
	Greater than 3 hours	6	4.6
	Total	**130**	**100**

Source own feed survey of 2014

Table 4.8 health service factors ANC service

Regarding the heath service payment 25% women paid for ANC service and the majorities 75% of women were no paid for ANC service but service was not available because of lack of equipment in the health institution. Those 25% paid for ANC due to the absence of government healthy center nearby. The others also mentioned that ANC service in private health centers better than government because good care for pregnancy women and available equipment in private health center. Additionally, both users and non-users were asked about the perception of distance from home to heath facility 53,8% of women reported that as an average distance (1.2 hours) and 4.6 % said too far. This shows accessibility of health services have been an important determinate of utilization of maternal health services in the study area. The scarcity of vehicles especially, in remote area cost of transport, poor road conditions and difficult of walking for hours to the nearest health facility may also pose problem for pregnancy women.

In most area in Africa, one in three women lives more than five kilometers away from the nearest health facility *(Islam A, and Tamar M, .2002*). The scarcity of vehicles especially, in remote area cost of transport, poor road conditions and difficult of walking for hours to the nearest health facility may also pose problem for pregnancy women. A study in Jordan has also shown that distance of place of residence from the service and time and cost involved in traveling to service were all highly significantly associated with non-use of the maternal health care services (*Abbas H.1998*)

4.4.11 Focus group discussion in ANC service

A total 32 participants were involved in 4 groups of pregnant women, husbands, elderly men, and religious leader and clans representatives in one group, including health workers.

From focus group discussion, almost the entire group defined ANC as a care provided during pregnancy to prevent any problem related to pregnancy and child birth. ANC service was also important for well being of both the women and the fetus. The majority of the group discussants were able to name the danger signs of pregnancy related health problems. Such as sever hypertension, severe headache, severe anemia marginal bleeding etc...

The group discussants were asked the barriers that affect the utilization of antenatal care services. The main reason for non-using ANC which was supplemented by the qualitative data. Were most of the focus group discussants reported that is not well united as expected because of lack of awareness, absence of health problem, and work over load either in the house hold or in the field looking after cattle, long waiting time, cultural reason and confidence on local TBA'S. some of the discussants agreed that most of the women do not go health institution for fear they might be seen by male health worker and this is unacceptable by their culture and is preferred to been by female's attendant only. One of the discussant from pregnant women said "some of the pregnant women believed the creator does an on us whatever he likes. She added if you go to health institution you would acquire disease" one of attained traditional birth attendant (TBA) said.

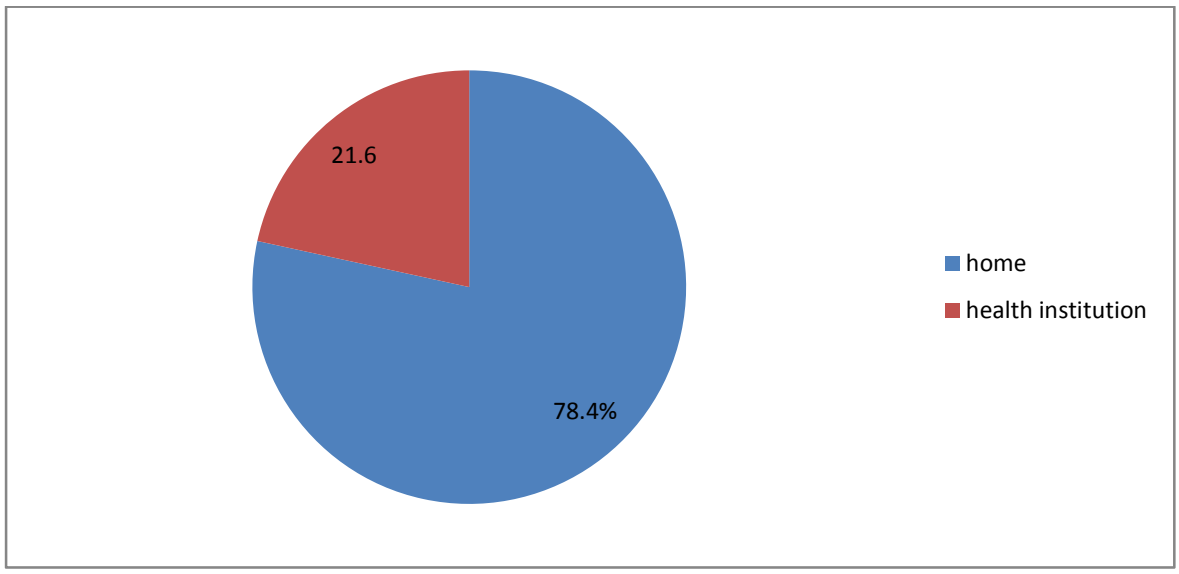
"Most of the women in our area do not go too far away ANC service unless they faced serious health problem, because they do not like removing their closes and being examined by someone else"

But from religious point of view, all the discussants agreed that from religious point of view attending modern health care service is not prohibited. One of a religious leader said "according to Orthodox religion it is not prohibited to attend antenatal at health institution rather than cultural behaviors or miss interpreting the bible"

4.5 Results of Place of Delivery

4.5.1 Utilization of place of safe delivery pattern

Access skilled assistance and well-equipped health facilities during delivery can reduce maternal mortality, and morbidity, and improve pregnancy outcome. It can be motioned (fig4.5.1)below



Source – owe field survey -2014

Figure 4.5.1 Respondents place of delivery in *Duna Worada,Hadiya Zone,*.SNPRS

The result suggest that in the (fig 4.5.1) place of last delivery 102(78.4%) of delivers took place at home and 28(21.6%) at health institutions. The indicate that majority of respondents' 78.4% delivered at home in the study area. They preference to delivered at home was due to lack awareness and education, and distance from health center.

The similar studies in Indonesia mentioned that more than 90% delivered at home (or someone else's home and more than 90% were attended by TBAs. Another studies in Ethiopia explained that the institutional very low. According to the report safe motherhood need assessment conducted in 1996 only 4.5% of the women give birth at the health facilities (MOH,1996). Ethiopian demographic and health surrey (2000) reported similar figure *(Bhatia, 2004)* studies conducted in *rural (Butajer, Admitulu)* revealed that 88% and 83% respectively mothers preferred to give broth at home.

The study conducted in south west Ethiopia reported 83% delivered at home and home and 66% the deliveries were attended by TBAs (*Mekkonen M, 2012*) the study *in Gulele District*, Addis Ababa, revealed that one fourth of women preferred at home. This of preference to deliver at home was higher in the study area due to lack awareness, education, and distance from health center.

4.5.2 Home Delivered Respondents

Home delivered respondents in file study Area demonstrated tables 4.5.1 below.

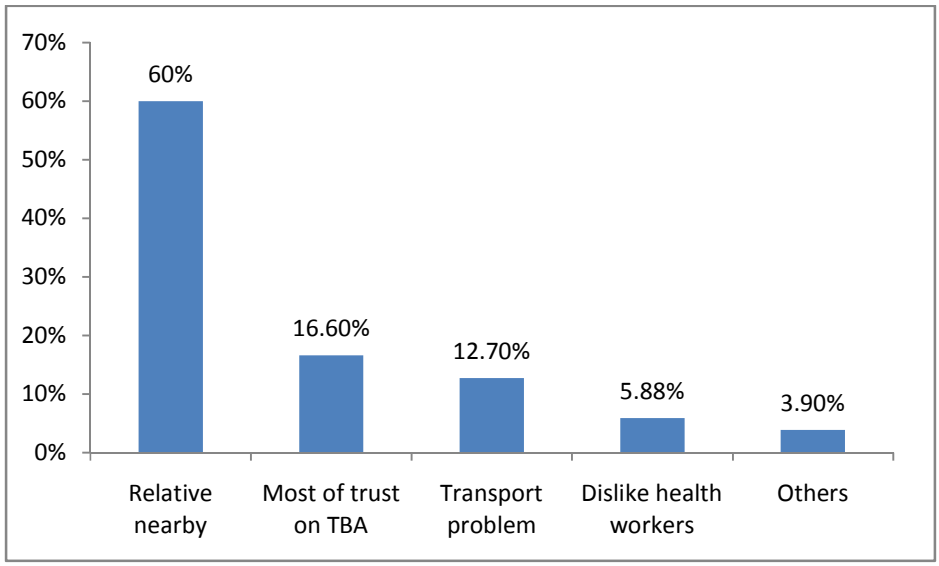
Variable		Frequency	Percent
Assisting during Home delivery N=102	Close relatives or friends	55	53.92
	TBA	20	19.6
	Neighbors	23	22.54

Source- own field work, 2014

Concerning home delivery, about 53.9% of home deliveries were assisted by close relatives /friends and only 19.6% were delivered by TBAs. This indicate that majority 53.9% of mothers was delivered by close relatives/friends and traditional birth attendance.

4.5.3 Reason for home delivery

The reason for home deliveries of the respondents of the study area can be mention graph 4.5.1 below .



Source-own field work 2014

Graph 4.5.1 Respondents reason for delivery at home in *Duna Woreda*.

Regarding the reason for home delivery of respondents in the study area can be motioned about graph 4.5.1 indicate that majority the respondents raised as main reason for home delivery were close relatives nearby 67(60.8%), also the most of trust on TBA 17(16.66%), transport problem 13(12.7%),dislike health worker 6(5.88)others 4(3.9%). Most of the respondents asked for why they prefer home delivered due to trust TBAs cultural reason and lack of money as reason for non-use of the service.

Other reports from Bangladesh and India came-up with similar finding (Fortney j, 1996). About 53.3%of mother preferred to give birth in the presence of relatives, trust TBAs cultural reason and lack of money as reason for non-use of the service. Another finding in the present study is that utilization of ANC was three to four time those mothers who experienced unless and perceived susceptibility to dangerous sign of healthy problems during pregnancy This study finding was consistent with a study conducted in Ethiopia .Fantahun.M 2005. This implies significant proportion of women seek for help from skilled birth attendances after developing obstetric complications and other traditional intervention failed. Studies in India and Iraq showed lack of recognition or perceived serious of health problem as a significant reason for not seeking out health care that accounted for half of maternal deaths (CSA, 2011)

4.5.4 Reason for choice of health institutions for delivery care attendance

Those women asked the reason for choice of delivery at health institution the most frequent reason was good quality of service 14 (50 %) closeness 6 (21.4 %) good quality of health workers 5 (17.85 %) continent time 2(7.14%) and others 1(3.57%). This finding is indicate that the reason for choice of health institution were good quality of health service 14(50%) show graph below 4.5.3

Graph 4.5.3 reason for choice of health institution for delivery care attendance in *Duna Woreda.*

Source: field survey of 2014

4.5.5 Focus group discussion on place delivery of the respondents

The group discussion started with general questions whether they had the knowledge of delivery care service or not. Regarding delivery care services, most of the discussants agreed that delivery care is the care provides for, women by trained health professional in the health institution.

However, one of the discussant stated that “if that go to the health institution they will be seen by male delivery assistances with no adequate privacy and unfriendly of some of the staffs who are no committed to their work”. So that, feel shy and therefore unless there are life treating

conditions they do not prefer to deliver at health institution.FGD participants also said “we fee free to apply pressure during labour in front of our friends and relatives than health professional. Moreover, we do not have satisfaction on the service given in the health center. As a result, we do not deliver there”

The group were also interviewed the choice of delivery site. The majority of the discussants reflect mixing of opinion with no clear choice of delivery. Some of discussants agreed that the best place to deliver a child is health institution. The majority of discussants preferred home delivery. According to participant home delivery has adequate privacy and assisted by relatives and TBAs with no payment on the other hand, one of married man discussants said “most women attend antenatal care throughout the whole pregnancies period but usually delivery at home because lab our is unpredictable and usually arises suddenly warring also transport problem”.

The FDG participants confirm the presence of a harmful traditional believes in their area. They state it by saying; “the fetus is no expected to be delivered unless the pregnant women sits in a hole made on the ground to delivery by putting her legs a part on the cow dung and leaves of Gulls positioned around the hole’’ .

Another discussant also said “village also selects TBAS because of tradition, Convenience and special attention they receive. Traditional birth attendants TBAs are trust, highly acceptable and affordable in the community”. Health worker also invited to discuss the main reason for low utilization of ANC and delivery car services in the study area. all discussants agreed that the main reason for under utilization of maternal health care service were due to cultural influence from generation to generation, misinterpretation of the work of health institution, existence of male dominance that led women to fee shy and to decreased utilization of maternal health care services.

But from religious point of view all the discussants agreed that from religious point of view attending modern health care service is not prohibited. One of a religious Leader said ‘’ according to attend delivery at healthy institution rather than cultural or behavioral or misinterpreting the bible’’.

The recommend the most feasible way to increase maternal health care utilization by their own Language and ethnicity using local leaders priority to train female midwife training and refreshment of traditional birth attendance.

4.6 Determinants of Utilization of ANC Service on Woreda

4.6.1 Bivariate Analysis of ANC

The ANC attendance was cross tabulated with the different independent variable like socioeconomic-, demographic, women's autonomy, the role of husband, availability and accessibility, and attitude and knowledge of women on the service. The cross tabulation was made with different dimension of the above independent variable as it was shown in table 4.6

The chi- square statistics showed the significance of association between the dependant variable(the use of ANC service or not use)and the independent variable describe above at 95% CI

Thus the following discussion will show the results of the association in each independent variable.

4.6.2 Socio Economic and Socio-Demographic Determinants of ANC Service

Table 4.6 Association of selected factors that affect the utilization of ANC service in *Duna woreda Hadiya zone in SNNPR 2014*

Factors Socio- economic and socio- demographic

variable		ANC use		P_ VALUE	Chi -square (x^2)
		Yes	NO		
Women resident	Urban	14(73.7%)	5(22.3%)	P=009	6.78
	rural	46(41.4%)	55(58.6%)		
Current age of respondents	15-19	27(67.5%)	13(32.5%)	P=000	25.4
	20-34	31(48.4%)	33(51.65)		
	>34	1(4%)	24(96%0		
Women education	illiterate	24(35.3%)	44(64.7%)		
	Primary school	21(50%)	21(5%)		
	Secondary and above	15(75%)	5(25%)	P= 006	10.17
Access to media	No exposure	35(33%)	40(67%)	0.08	6.1
	TV, Radio/newspaper	25(42%)	35(58%)		
Women occupation	House wife	42(40%)	63(60%)		
	Farmer	10(66.6)	5(33.4%)	P= 024	9.43
	Merchant	3(75%)	1(25%)		
	Civil servant	5(75%)	1(25%)		
House hold income	<300	9(18.3%)	40(81.7%)		
	400-600	38(57.5%)	28(24.5%)	P= 000	30.74
	700-1000	10(83.4%)	2(16.6%)		
	>1100	3(100%)	0		
Husband education	Illiterate	8(38%)	13(62%)		
	Primary school	30(37.9%)	49(62.1%)	P= 003	11.59
	Secondary and above	22(73.4)	8(26%)		
Parity	1-4	27(67.5%)	13(32.5%)		
	5-7	32(52.4%)	29(47.8%)	P= 000	29.5
	8 and above	1(3.4)	28(97%)		
Age at first marriage	12-15	26(56.6%)	20(43.4%)		
	16-18	25(36.7%)	43(63.3%)	P=0.04	6.08
	>18	9(56.3%)	7(43.7)		

Source-own field work 2014

Socio Economic and Socio-Demographic Determinants of ANC Service in the above table 4.6 shows .The chi-square test has found that ANC service utilization significantly association with women's resident, education, occupation, husband education, access to media, house hold income. Women education and ANC service utilization are associated

significantly(x^2=10.17p<0.006). This indicates that women who use ANC in the three years period were increase with an increase in the level of education. As table 4.6 shows that 35.5% of women with no education and 75% of ANC users women was secondary and above. Similarly, ANC increase with increase in the level of husband education. Research in developing countries has consistently shown maternal schooling to be strongly and positively associated with utilization of MHCs (kumal, 2009). The higher a women's level of education the more likely to use MHC service.

But also women occupation had an influence on the utilization of maternal health care service. Women occupation and ANC service use is significantly associated (x^2 =9.42. P< 024). With regard to this, of women who are civil servant only 25% are found to be the non –users but the proportions of non –users increase among the farmers 33.4% and house Wives 64.7% non- use of ANC service respectively.

Women's utilization of ANC service and residence are significantly associated (x^2=6.78. p< .009). Accordingly 58.6% of women who are living in the rural area are found to be the non – users but it reduced to 22.3% in the urban women. . Different studies demonstrate that a rural women use less antenatal care service than urban women. The women living rural area cannot use antenatal care service because of transport problem, lack of education and awareness, economic and other problems (Monica et al.2003).

House household income and use of ANC service to be significantly associated in the study area. (x^2=30,p<=0.000). Women who have lower house hold in come have low proportion to use ANC service. But the reverse is true for those women whose house hold income was higher. Of the women whose house hold income was one thousand and above none of our non use but this proportion is increase to16.6% of women whose household income was between 700and 1100 . And 81% of women whose house hold income below 300 found to be the non use.

In this study it was found that 67.5% and 4% of women in the age group 15-19 and 35and above respectively had attended. ANC service utilization declined with increase age. The percentage of women who used ANC declined from 52.4% to 3.4 % for one goes from women having given less or equal two births 8 or more birth respectively.

4.6.3 Association of quality of some selected health service with attendance

As we can see table 4.6.1 the chi-square test result indicated that there is an association between ANC attendances and some selected healthy barriers. Some of the health service barriers were measured based on respondent's view of present attendees and those of non attendants.

The ANC attendance was cross tabulated with different independent variable like accessibility and availability. Women attitude and knowledge and the role of husbands as it is shown in Table 4.6.1 Association of quality of some selected health service with attendance

Variables		ANC use		**P-value**	**x^2-(chi-squre)**
Accessibility and availability		**Yes**	**No**		
Traveling time	Below 1 hour	27(50%)	27(50%)	P=0.046	5.96
	1-2 hour	3 3(47%)	37(53%)		
	3 and above hours	0	6 (100)		
Waiting time	<1 hour 2-3 hour 7.3 hour	20(40%) 0 0	30(60%) 71(100%) 9(100%)	P=0.000	37.8
Distance	Very close Average Too far	20(37%) 2(2.85%) 1(16.6%)	34(63%) 68(97.15%) 5(83.4%)	P=.000	33.26
Women attitude and knowledge					
Information about ANC	Yes	27(30%)	63(70%)	P=.000	30.17
	No	33(82.5%)	7(17.5%)		
Knowledge about benefit of ANC	Yes No	27(40.2%) 33(52.4%)	40(59.8%) 30(47.6%)	P=.048	5.8
Women attitude ANC service.	Positive Negative	27(33.7%) 33(66%)	53(66.3%) 17(34%)	P=.000	12.87
The Role of husband					
Attitude of husband	Positive Negative	27(31%) 33(67.3%)	50(69%) 20(37.7%)	P=.003	9.34
Husband advice	Yes No	25(38.1%) 50(61.6%)	38(76%) 32(40%)	P=.000	16.04
Financial support	Ye No	12(24%) 48(60%)	38(76) 32(40)	P=.000	16.04
quality ANC	Good Satisfactory Poor	27(41.5%) 20 (44.4) 13(92.9%)	48(58.5%) 21(55.5%) 1(7.1%)	p=.000	15.513

Source-own field work 2014

4.6.4 Accessibility and availability

Distance of health centers from the women home was also found to be one of the significant determinant for the women use of ANC service in the baivariate analysis (x^2 =33.26. p=0.000). This indicate that the antenatal of care service of use increase with increase of close distance. About2.85% of women use ANC in far distance from the health center and 37% of women use ANC service close to the health center. The similar study indicates that the location and quality of the service available are also important factor affecting MHCS utilization. Proximity to health facility has been found to affect the use of MHC service especially in rural area (Bahaman et.al 1982 et.al Chakraborty et al. 2003) as these facilities are usually located at long distance. For many, lack of transport and /or considerations of the cost of transportation serve as mitigating factors.

Traveling time taken to reach the health service center significantly affect the use of ANC (x^2=5.96.p<0.046) similarly to different areas, the proportion of non-users to ANC service linearly related to in the study area. As the time taken to the health center increase, the proration of women who do not attend the ANC service increase. Thus 100% of women are found to be the non-users of ANC who travel 3hours and above and the proportion falls to 53% and 50% for those women who travel one to two hours) and below one hours respectively. Similarly to different areas, the proportion of non-users to ANC service is linearly related in the study area. Length of waiting time at ANC clinics has significantly associated with ANC attendance. The pattern of relationship demonstrates that the proportion of non-attendants increase a Length of waiting time increase.

4 .6.5 Women Attitude and Knowledge

Women‘s access to information about ANC service and their use of the service was also significantly association (x^2=30.7.p=0.000). About 70% of women who have no information about ANC service are known to be non- users in the stud area. But about 17.5% of women use the service that had got some information about the ANC service.

The Women’s attitudes towards the ANC service and their use of the service were significantly associated (x^2=12.87.p=000) of the women who have negative towards ANC service 34% are found to be the non-a users.

Quality of ANC given to pregnant women at ANC clinics is a significantly associated with ANC attendance. Among women who reported the quality was poor were attendees. The proportion of respondents who were attainders and those who said the quality was good satisfactory and fair were 92.9%, 44.4% and 41.5 % respectively.

The other important factor which found to be the significant determinant of the use ANC service were their knowledge about the benefit of service (x^2=12.87.p=0.000) . Women who do know the benefit of the service 66.3% are identified as the non-users of the service.

4.6.7 The Role of The Husband

Financial support of the husband for MHC use and women use of ANC are significantly associated (x^2=16.04,p=0.000). About 76% of women who are not supported by finance from their husband were found to be the non-users. But it was lower which was 40% for those who have financial support from their husband. The attitude of the husband towards MHC was also found to obstacles to use ANC service in the study area (x^2=9.34.p<0.03). Of women whose husband attitude was negative forwards ANC service 69% are found to be the non-user but this proportion on falls to the 37% for the positive.

4.7 Determinants of pace of delivery care utilization in *Duna woreda*

4.7.1 Bi-variate Analysis

Different variable like demographic , socio- economic , women status, the role husband, availability and accessibility attitude and knowledge of women cross-tabulated with the utilization of PADC . The study used dichotomous outcome for the PADC (yes or no) and checked the association taken in deferent dimension of the above independent variable. The chi-square test revealed the significant association between PADC and some independent variable at 95%CI. The result is shown in the table 4.7 below.

Table 4.7 Association of some socio –demographic and socio- economic variable with preference of place of delivery in Duna woreda

Variable	response	Health center	Home	p- value	Chi-square(x^2)
women residence	Urban Rural	16(42.2%) 4(3.6%)	3(17.8%) 107(96.4%	P=0.000	80.93
Current age of respondents	14-19	8(17%)	37(83%)	P=0000	45.5
	20-34	10(10%)	(87%)		
	35 7	(7.6%)	42 (93.4)		
Women education	Illiterate Primary School Secondary School	24(35.3%) 21(50%) 15(75%)	44(64%) 21(5%) 5(25%)	P=006	10.17
Wife occupation	House wife farmer Merchants Civil servants	42(40%) 10(66.6%) 3(75%) 5(75%)	63(60%) 5(33.4%) (25%) 1(25%)	P=024	9.43
Husband education	Illiterate Primary Secondary and Above	8(38%) 30(37.9%) 22(73.4%)	13(62%) 49(62.1) 8(26.6%)	p=003	11.59
Howe hold income	<300 400-600 700-1000 >1100	9(18.3%) 38(57.5%) 10(83.4%) 3(100%	40(81.7%) 28(24.5%) 2(16.6%) -	P=000	30.74
Marital status	Married Others	20(16.6%) 0-	100(83-4) 10(100%)	P=0.02	10.58
Parity	1-4 5-7 8+	17(19.10%) 2(16.6) 1(3.4%)	72(81.9%) 10(84.4%) 28(96.6)	P=000	22.06

Source-own field work, 2014

4.7.1 Socio-economic and demographic determinants.

As one can seen from table 4.7. The chi-square test result indicated that there was an association of delivery at health institution and some selected health services barriers. It showed respondents distribution that delivered at health institution and home, according to some socio-demographic and Economic determinants.

The socio-economic determinants that were found to affect the PADC significantly associated were residence, women education, women's occupation, household income and husband education.

Women residence were significantly associated (x^2=80.92.p=0.000) .with women of the urban (82.2%) were more likely to utilize PADC than the rural 3.6%.

Accordingly, women who delivered at health institution increase with an increase in the level of education. The table 4.7 depicts that 35.3% of women with illiterate and 75% of women with secondary and above had delivered at health institution respectively. similarly delivery at health institution increase with an increase in the level of husband education.

Women occupation significantly associated with PADC (x^2=9.43.p<0.24) women in the study area who were civil servants 75% were more likely to utilize than famer 66.6% house wife 40%.

PADC and house hold income had a significantly associated in the study area(x^2=11.9, p<0.03). Chi-square test found the liner association between household income and PADC.Women whose income less than 300(18.3%) were less likely utilize PADC than women whose income was 400-600(57.5%) 700-1000(83.4%) and 1100(100%) respectively. As house hold income increase the probability of utilization of PADC also increase.

It was found that 10%and 7.6% of women in the age group15-19 and 35 and above respectively had delivered at health institution indicating a decline in utilization of delivery as age increase.

In this study, parity and PADC were significantly associated. Moreover, the use of health institutions' delivery service decline as an increase in parity and number of living children .the percentage of women who delivered in health institution was 19.10%, 16.6% and 3.4% for women who had less than two birth from5-7 births and eight or more birth respectively.

4.7.2 Association of some selected variable with preference of delivery in the duna woreda

As we observed in table 4.7.1 accessibility and availability women attitude and knowledge on place of delivery and the role of husband significantly associated with professional assistance delivery care utilization.

Table 4.7.1 Association of some selected variable with preference of delivery in the duna woreda

variable		**PDAC use**		**p-value**	**x^2(chi-square)**
Accessibility and availability		**Yes**	**No**		
Distance	Very close Average Too far	20(37%) 01(1.4%) 0-	34(63%) 690(98.6%) 6(100%)	P=0.000	33.2
traveling time	<1 hour 2-3 hour >3 Lour	20(40%) 2(3%) 0-	30(60%) 680(97%) 10 (100)	P=0.000	
Women attitude and knowledge on place of delivery					
Knowledge about importance	Yes No	20(28.5%) 20 3.3	50(72.5%) 58(96.6%)	P=0.000	2026
Attitude on place of delivery care	Home Institution	20(22.2%) 2(5%)	70(76.8%) 38(95%)	P=0000	10.5
Knowledge Safe delivery	Ye No	20(24.3) 3(6.25)	62(65.8) 48(91.25)	P=000	13.8
The role of husband					
Husband advice	Yes No	20(28.5% 2(3.3%)	50(71.5) (96.7)	P=000	20.26
Husband financial support	Yes No	20(33.8%) 3 4.2%)	39 (66.1%) 18(95.8%)	P=0.02	28
Husband attitude	Positive Negative	20(28.5%)50 1(1.66)	(71.5) (98.4)	p=000	20.2

Source own field of survey, 2014

4.7.3 Availability And Accessibility

Utility of PADC was significantly associated with the different dimensions of availability and accessibility factors. However, distance from home to health center was found to have

significantly association with the utility PADC(x^2=33.2, p=0.000). The chi-square test showed the linier association between the service utility and distance. Women who live too far from the health center zero percent were less likely to utilize PADC service than those women of an average distance (14%) and women who were close to the health centers (37%).

Travel time to reach the service was also significantly associated with the utilization of the service (x^2=37.81, p-=0.000). Women who travel longer distance between two to three hours (40%) women who travel less than one hour more likely to use PADC than women who travel two to three hour (3%) and greater than three hour, zero percent.

4.7.4 The Role of Husband

The importance barrier for the utilization of husband's role to use the MHC service. Husband's role in giving advice, financial support and husband's attitude the service found to have significantly associated with the utilization of PADC.

As the chi-square test measured the associated between PADC and husband role giving advice were found to be significantly associated (x^2=20.26, P=0.000).This 71.5%of women who do not be give any advice from their husband were not the user of PADC but 28.5% of the women who are supported with their husband in advice about MHCs were the users of PADC.

Husbands financial support and women's utilization of PADC is also significantly associated (x^2 =28,p<0.02)66.+% of women who do not have financial Support from their husband are found to be the non-users of PADC but 33.8% of the women who have financial support from their husband use PADC in the study area.

The attitude of the husband towards MHC service and women's utilization of PADC was also significantly associated (x^2=20.2, p=0.000). The negative attitude of the husband for MHC came to be a threat for the 98.4% of the women not use the PADC 28.5% of women use PADC whose husband have a positive attitude towards the service.

4.7.5 Women attitude and knowledge on place of delivery

The women's attitude towards the preference of place of delivery found to be significantly associated with PADC (x^2=10.26p=0.000). About 67.8%of women are non users of PADC who prefer to delivery at home and 95.7 women who prefer to delivery at health institutions utilized the PADC. Women's knowledge on the importance of PADC and the use of it is significantly associated (x^2=20.26,p=000).71.5% women were the non-users of PADC who do not have the knowledge on the importance of PADC of those women who have the knowledge about the importance of the service, 33.8% are the users of the services.

Women's knowledge about safe delivery and the use of PADC was also significantly associated PADC also significantly associated (x^2=13.8,p=0.000)of women's group who do not have knowledge 91.25% are not users of PADC and almost 65.8 of women who know about safe delivery are users of PADC.

Chapter Five
Conclusions and recommendation

5 Conclusions

In conclusion, this study demonstrated that utilization of maternal health service was inadequate in general. As clearly depicted the majority of maternal health indictors (antenatal and delivery services) during the period of three year preceding survey. The most important factors influencing utilization of antenatal and delivery care services were demographic, socio-economic, accessibility and availability and socio- cultural in nature

- The utilization of antenatal care and delivery care service in the study area can be said inadequate, because of multiple structural deficiencies, absolute minimum equipment, low provision of the content of ANC service, the coverage of ANC service, according to the recommended number of vicinity for sufficient care has found only 46.1 % in the *woreda*.

- The main reasons for non-use of ANC service in the *woreda* were found to be being healthy 42.8%, having no idea about it 24%, too busy, long distance and work overland.

- Bi-variate analysis showed that all the demographic and economic factors such as education of both partner, occupation of both partner, house hold income, access to media, the respondent residences, family size, attitude towards ANC and delivery care of both partner, and financial support are significantly predictors of the use of ANC and PADC in the study area.

- Accessibility and availability of health service have been shown to be important determinants of utilization of maternal health care service in the study area.

- The result this finding show that the level of institutional delivery care still very low, it was 21.6%. However, more than half of the women who attend antenatal care were delivered at home and almost all of these deliveries were attended by TBA, (untrained TBA, close relatives/ friends).

- The most important reason for non-attendance delivery care service in the woreda to be trust on TBA / friends (60%), cultured factors, distance from health service, lack of

awareness, transport problem are major barriers for non- attendance of delivery service in the study area.

- The numbers of parities were found to be positive predictors of antenatal care attendance and choice of delivery site while ANC non- attendance and age of women 35 + years were to be barriers of institutional delivery care service in the study area.

- The finding this study, showed that in particular, for study area rural women access to maternity care service was relatively very low, women had to travel long distance to get the nearest health facility, which has a negative impact to maintain behavioral consistency.

- Bi-variate analysis show that the utilization of ANC service and husband's provision of advice on MHC use for their women was significantly associated. Of women who are not provided with any advice about MHC 61.6% were found to be the non- users but this proportion decrease to 38.4% for those which are supported by advice from their husband.

5.1 Recommendation

The findings of this study had important implication for improving utilization of maternal health care service and further research's. Based on the above finding of the study the following recommendations were made:-

- The wider coverage disparity between the study area and the country and regional level for the result shows, it may be due to the time gap for the period of the survey. Maternal health care has been given great attention globally and nationally in these recent times. The government of the country has made effort to improve the quality of the service so as to reduce the high rate of maternal death in the study area.
- The heath planner has to be aware of the existing behavioral inconsistency in the utilization of maternity care services from one birth to next and advice the necessary measure to minimize such problem in the woreda.
- Improving training and/or refreshment of TBA, with the new role they should play in handing pregnancy and child birth and integrate with in the formal heath care system by giving priority training for female skilled delivery attendants.

- Improvement in access to and quality of health care, that means the aim must be to ensure that all pregnant woman have access to skilled attendant at the time of every and to the necessary care for obstetric complications when they arise.
- There must be improvement in the distribution of heath centers minimizing the problem of accessibility in terms of distance for non- attendances of MHC service both in the rural and urban kebeles. Wider provision or ambulance service for the rural women of the woreda has great importance in increasing the MHC service use by the skilled attendants in the health center and hospital especially during the time of delivery complication.
- Government non- governmental organizations and private MHC providers must be encouraged to work on the sector so as to increase accessibilitiy and availability of the service.
- The national and regional mass media must work much on the issues of MHC services enabling the women know about the importance of the service. Moreover, the government of the region and woredas should work on accessing electronic media for these non- educated women of the area with local language.
- Stakeholders should work on provision of the service emphasizing on the home to service provision in the rural area.
- Since pregnancy related complication are the main reasons for utilization of health facilities. Therefore, community awareness program must focus on the danger signs related to pregnancy and child birth by heath providers.
- As women's education is an important for factor the institutional delivery and ANC service. But women education was very low in the study area, therefore, education office has improving education among girls, beyond primary and secondary school, need to be strongly encouraged in the study area.
- The majority of the women of the woreda were found to be illiterate. Research should be made to identify the different factors that limited women education in the study area.

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Questionnaire for Community based Survey on Factors Influencing Utilization of maternal Health Care Services in Hadiya Zone, Duna Woreda

Greeting

Hello! My name is _____ from Duna Woreda of Hadiya Zone of SNNPR Health Bureau. I am working in research team of Addis Ababa University College of Social Science, Department of Geography and Environmental Studies. This is a study which will be made aiming at assessing the level of utilization of maternal health care and it's determines in this woreda. The target population of the study is married women age 15-49 who gives birth at least one in the last three years. Moreover, you are one of the selected women to be part of the study to provide information's that are required for the study. You are kindly requested to be included in the study which will have important in improving maternal and child health service. The interview will take 1 hour. No information concerning you as individual will be passed to another individual or institution without your agreement. My sister or mother, you participation is voluntary and you have the right to refuse not to be the part of this study. If you agree to be included in the study I will start my question by asking general identification point. However, be sure that the information that you provide us will be secret.

The study has approval from Addis Ababa University. My I continue? If yes, continue the interview. If not, thank and stop the interview.

Name of the interviewer _____ sign_____ date of interview _____

Starting time _____

End time _____

Name of the supervisor _____ sign_____

1) Household identification

    01. Questionnaire code _____

    02. Residence: region _____ zone _____ woreda_____kebele_____

03. *Gott* _____

04. House number _____

05. How long have been living in this *kebele* _____

06. When was your date of give birth regardless of the outcome of pregnancy_____

_____

Part I: Socio-Demographic Characteristics

1.1. Place of residence? : 1. Rural 2. Urban

1.2. What is your religion? : 1. Orthodox 2. Muslim 3. Catholic 4. Protestant 5.others (specify)

1.3. To which ethnic group do you belong? : 1. Hadiya 2.Kambata 3. 0the

1.4. What is the highest level of education you completed?

	You	**Your Husband**
1)	Never attended	1. Illiterate
2)	Read and write only	2. Read and write only
3)	Primary school 1 to 6	3. Primary school 1-8
4)	Secondary school and above	4. Secondary school 9-12 and above
5)	Other specify_____	5. Other specify _____

1.5. Age _____

1.6. What is your current marital status: 1. currently married 2. Divorced 3.Windowed4. Separated 5. Other specify _____

1.7. Age at first marriage _____

1.8. How old were you when you had your last child_____

1.9. Number of children ever born----------

1.10. Number of surviving children----------

1.11. Do you have any sensor daughter to whom you? 1. Yes 2. No

1.12. Have given birth that is now living with you? 1. Yes 2. No

1.13. How many sons and daughters live with you? 1. Son_____ 2. Daughters----

1.14. Do you have any son or daughter to whom you have given birth who are alive but live with you? 1. Yes 2. No

1.15. How many sons and daughters alive but not living with you? 1.sons------

2. daughters----------

1.16 Have you given birth to a boy or girl who was alive but later died?

1. yes 2. No

1.17. How many sons and daughters have been died? 1. Son-- 2. Daughters---------

1.18. How many is your household family size? _____

Part II: Socio-Economic Characteristics of the Respondents

2.1 Women residence 1. Urban 2. Rural

2.2 Women's educational level 1.Literate 2. Primary school

3. Read and write 4. Secondary School 5. Above these

2.3 Women's personal income per month 1. ----birr/day 2. Don't know

2.4 Women occupation 1 House wives 2.farmer 3. Civil Servant 4. Own private business

5. Other (specify)_____

2.5 Household income _____

2.6 Husband education 1 Illiterate 2.Read and write 3. Primary school 4. Secondary school 5. Other (specify)_____

2.7 Husband occupation 1.Farmer 2.cival servant 3. Private trade 4. Daily laborer

5. Other (specify)_____

2.8 How often do you read newspaper 1 .Not at all 2.once in week 3. At least once in a week 4. Almost every day

2.9 How often do you listen to the radio? 1. not at all 2. Once in a week 3. At least once in a week 4. Almost every day

2.10 How often do you watch television?

2.11 Not at all 3. At least once in a week

2 Once in a week 4. Almost every day

Part 3 Questionnaire on ANC

3.1. Was the pregnancy intended? 1. Yes 2. No

3.2. From where do you think pregnant women could yet ANC?

1, Health institution 2, TBA 3, Relative friends 4, Cha 5, Others

3.3. Where do you here about the source of ANC service?

1, health institution 2, Radio /TV

3.4. Do you know about the benefit of ANC? 1, Yes 2, No

3.5, If yes what is the benefit ANC 1, Maternal health 2, Child health 3, Both for maternal and child health 4, Others specialty

3.6. Do you see any one of the antennal cheek ups for the recent child birth? 1Yes 2. No

3.7. If yes, at what gestation did you go 1, 1-4and month 2, 5-6 month

3, 7-9 month 4, Don' know

3.8. If yes what was the total number 1, Once 2. Two 3. Three or more

3.9. If you went for ANC check – ups to which health institution did you go

1, Hospital 2. Health center 3. Clinic 4, other specialty

3.10. Why did you go to that particular health institution? (Multiple response possible)

1, Close to where I live 1, yes 2 No

2, little or no expiry 1, yes 2 No

3. Convent time of Service 1, yes 2 No

4. High quality of service 1, yes 2. No

5, other specialty

3.11. What is the main reason you initiated for ANC follow up?

1, Health problem 2, To start regular check up 3, Other specify

3.12. If you attend ANC, was health education given during each visit?

1, yes 2, No 3, don't know

3.13. Did you pay fee during your antenatal care? 1, yes 2, no

3.14. If for the question No 313 is yes, how do you feel about the payment for ANC

1, Unaffordable 2, Fair 3, Very small

3.15. How much on average did you pay for ANC service provost _____birr

3.16. If you had ANC at least once, where is the person sought care?

1, Doctor 2, Health officer 3. Nurse 4, health extension workers

3.17. If you had ANC at least once, what was the type of service Given during ANC

1, TT vaccine 1, Yes 2, No

2, Antenatal card 1, Yes 2, No

3, Health education 1, Yes No

4, Multi vitamin and minerals 1, Yes No

5, Blood pressure Yes No

3.19. What was the number of TT vaccine _____

3.20. Reason for not using ANC (multiple response are possible)

1, Health providers were not available 2, Financial constraint

3, long distance 4, Long waiting time 5, I was healthy 5, Poor quality of the service 6, Husbands disapproval 7, I have no idea about it 8, affordable

3.21 The Level of Antenatal Care Utilization

1) Urban _____ 2) Rural _____

2) Part 4 determines on the choice and assistance delivery and during delivery

4.1. where did you deliver your last baby? 1, Hospital 2, Health center
3, Health station/clinic 4, Home 5, other specialty

4.2. Why did you want delivery your baby in particular place? (if a health institution)

1, Close to where I live high 2, Quality service 3, Good approach with workers

4, little expenses to deliver in this particular institution 5, other specialty

4.3. If you delivered at home, why? (More than one answer is possible)

1, Expense for delivery at health institution is an affordable 1, yes 2, no

2, Dislike behaviors of health workers at institutions 1 yes 2, no

3, More trust on TBAs institution (relative health workers in health institution) 1 yes 2, no

4, Wishes to deliver at home where relatives are nearby 1, yes 2 no

5, other specialty

4.4. If you deliver at home who assisted you during delivery? Health worker

2, TBA 3, Close relative friends Neighbors 5, other specialty

4.5 have you paid for delivery care 1, yes no

4.6 was payment affordable 1, yes 2 no

4.7. Who was you companion at labor?
1, husband 2. Sister/mother 3 in law 4, other

4.1 availability, accessibility and affordability

4.8 Is there any health service center in your locality? 1 yes 2 no

4.9 distance from home to health center Very close 2. All rare 3. Too far

4.10 Times taken to reach any heath service center?

1, 0-1 hour 2. 1-2 hours 3. 3 hours 4. 3 and above

4.11. Waiting time toilet the service in any health service center

0-1 hour 2.1-2 hours 3.3 hours 4. 3 and above

4.12 . Can you get materials service in any time (day or night)? Yes 2. No

4.13. Walking time to get the ANC service in week

1, One day 2.Two days 3. Three days 4. Four and above

4.14. Do you think that there is sufficient health service provision for delivery in your locality

1. Yes 2. No

4.15 . Is there any payment needed for the maternity care service? 1, Yes 2. No

4.16 Is the payment needed for ANC affordable? 1. Yes 2. No

4.2 women status

4.17. Last decision on purchasing daily items.

1, Respondent 2, jointly 3, husband 4 others

4.18 Decision on purchase large items?

1, Respondent 2. Jointly 3. Husband 4. Others

4.19. The last decision on visiting relatives

1, Respondent 2. Jointly 3. Husband 4.others

4.3 The role of husband

4.20 Is there any advice from your husband to use materials health care? 1. Yes 2. No

4.21. Is there any financial support from your husband for material health care? 1. Yes 2. No

4.22 Compensation during ANC visit? 1. Yes 2. No

4.23. Is your husband give you permission to go maternal health care service center
1. Yes 2. No

4.24 What his attitude towards the service? 1. Positive 2. Negative

4.4 Attitude and Knowledge

Antenatal Care

4.25 . Do you believe that pregnant woman should get ANC follow up ?

1. Yes 2. No 3. Not know

4.26 Have you heard about ANC follow up? 1. Yes 2. No

4.27 Do you have knowledge about the un healthy pregnancy?

1. Yes 2. No

4.28 By whom such pregnancy woman was delivered?

1. Health institution 2. Relative (friends) 3. TBA 4. TTBA 5. Others

4.29. Do you know about the benefit ANC 1. Yes 2. No

4.30 If for question number 803 is yes, what is the benefit of ANC?

1, Maternal health 2, Child health 3, Both for maternal and child health 4, Other

Part 5, Professionally Assist Delivery Care

5.1. Where do you deliver? 1, At home 2 Health institution 3. Others

5.2 . If you want to deliver at health center, why? 1, It is my usual practice 2, I have learn about it when I follows up ANC 3. For my child and my health 4. Others

5.3 Do you know about the importance of PADC 1. Yes 2. No

5.4 Do you know about what to mean by save delivery? 1. Yes 2 .No

5.5 . Where you aware about where to delivery your child? 1. Yes 2.No

5.6 . Does institution delivery have any? 1. Yes 2. No

Part 6. Quality antenatal care

6.1. How long was the time you spent in waiting to get ANC service?

1 .Short 2.Fair 3. Long

6.2. Did you think that of privacy was problem at ANC?

1. Yes 2. No 3. Don't know

6.3. What is your feeling about the quality of ANC given?

1. Good 2.Satisfactory 3.Poor

6.4. Do you have confidence on the service provided at the health institution?

1. Yes 2. No

6.5. How do you rank the behavior of health workers providing ANC service?

1. Very good 2. Good 3. Fair 4 bad

6.6. How do you feel about the distance from your home to the nearest health institution? (Health center, clinic) 1Very close 2.Average 3.Too far

67. How long does it take to travel from your home to the nearest health institution?_____ _____Hours

Focus group discussion (FDG)

Introduction

Good morning! Well come to our group discussion

My name is _____my colleague near to me is _____we can from the SNNPR health service

Would you be willing to participate in the discussion?

If yes, process if no thank and stop the discussion

Name of the moderate _____ sign_____

Date_____time_____

Preparation

Topic: community perception of antenatal care utilization and preserve to place of delivery.

Target avoidance pregnant woman, husband, religion and community leaders and health workers

Objective of the discussion

To exploration community's understand and preparation of antenatal care utilization and preference to place of delivery in Duna Woreda

To assess factors affecting utilization of maternal health care service particularly antenatal and delivery care including IT vaccination

Description of the participation

A total of four group each comprising a minimum seven and maximum of ten participants will be involved

- Next we would like to hear a little about your experience or knowledge about antenatal care and child bearing
- Who can tell us about antenatal and delivery care service?”
- Is there any health education given about ANC and DC and how much is nits important.
- Who would like to be telling us dangerous health problems related to pregnancy and child birth?
- What are the causes?
- What is the consequence?
- Would you explain further?
- Pregnancy related risks and antenatal care
- How we would like to ask you specific question about health problem related pregnancy child birth
- Do you think that a health pregnant woman attend ANC? Why?
- Where do you think is the best place for ANC > why would you explain further?
- What are the primary reasons for pregnant women should attend ANC clinics?
- What are the primary reason pregnant woman not attend ANC clinics?
- Where do you think the best person to visit during delivery? Why?
- Who do think the best place for delivering a child? Why?

- What is your opinion about ANC and preferences to religion point of view?
- Which group the population do you expect not to utilize the service and what and their reasons? And would you explain further?