A SOCIOLOGICAL ANALYSIS OF FACTORS AFFECTING THE UTILIZATION OF ANTENATAL AND POSTNATAL SERVICES FOR WOMEN OF REPRODUCTIVE AGE IN MAKARFI LOCAL GOVERNMENT AREA OF KADUNA STATE, NIGERIA

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A DISSERTATION SUBMITTED TO THE SCHOOL OF POSTGRADUATE STUDIES, AHMADU BELLO UNIVERSITY IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF MASTERS DEGREE IN SOCIOLOGY,

DEPARTMENT OF SOCIOLOGY,

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ZARIA, NIGERIA

JUNE, 2021

DECLARATION

I Imrana HASSAN declare that the work in this dissertation entitled "A Sociological Analysis of Factors Affecting the Utilization of Antenatal and Postnatal Services for Women of Reproductive age in Makarfi Local Government Area of Kaduna State, Nigeria" has been carried out by me under the supervisor of Prof. Bashir Tanimu and Dr. T. Halliru in the Department of Sociology, Faculty of Social Sciences, ABU. Zaria. The information derived from the literature has been duly acknowledged in text and a list of references provided. No part of this dissertation was previously presented for another degree or diploma at this or any other institution to the best of my knowledge. I am liable for any mistake(s) in this work.

Imrana HASSAN _____ _____

Signature Date

CERTIFICATION

This dissertation entitled "A Sociological Analysis of Factors Affecting the Utilization of Antenatal and Postnatal Services for Women of Reproductive age in Makarfi Local Government Area of Kaduna State, Nigeria" by Imrana HASSAN meets the regulations governing the award of the degree in master of Sociology, Ahmadu Bello University Zaria, and is approved for its contribution to knowledge and literary presentation.

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DEDICATION

This research work is dedicated to my parents late Alhaji Hassan Yusuf and Hajiya Sa'adatu Abdulhamid for their guidance, support and prayer.

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ABSTRACT

This study was focused on a sociological analysis of factors affecting the utilization of Antenatal and Postnatal Services in Makarfi Local Government Area of Kaduna State, Nigeria. Four research questions as types of antenatal and post-natal care services available to women of reproductive age; level of utilization of antenatal and postnatal care services; social, economic and cultural factors determine the use and non-use of antenatal and post-natal services; measures that could be introduced to enhance utilization of antenatal and post-natal health care services and four research objectives also guided the study by utilizing the political economy theoretical perspective and survey design (qualitative and quantitative methods). Data were collected from 250 respondents. The respondents were selected through a combination of cluster and purposive sampling techniques based on availability and willingness to participate. The Primary Health Care facilities and the maternal health services providers were selected based on their location and service provision in the selected study communities. Data were obtained from the women of childbearing age through the questionnaire. In-depth interviews (IDI) were utilized to collect data from the health services providers in the study area. Findings revealed that the factors affecting antenatal and postnatal services utilization operate at various levels - individual, household, community and government. Thus, antenatal and postnatal problems like prolonged/obstructed labour, bleeding in pregnancy, anaemia, postpartum haemorrhage, retained placenta, were most frequently occurring in the study area. It was established from the study that, these problems were due to poor decision making power of the women, quality of health services, finance and distance which significantly affected the utilization of antenatal and postnatal care services. These modifying factors as described by the Marxist theory of political economy were mostly responsible for the patterns of utilization of antenatal and postnatal care services in health facilities by the women. It is therefore recommended among others that, state and local government should employ more staff in order to effectively carry out antenatal and postnatal services in health care centre in Makarfi; The government should employ more midwives to ensure that there is at least one qualified midwife in each health facilities while the existing community health extension workers should be regularly trained in the area of basic maternal and child health services to complement the activities of the midwives and paediatricians. To achieve this, State Government should direct the Local Government Chairman to offer automatic employment to all her indigenes graduating from the School of Midwifery; Government and Non-Governmental Organisation (NGOs) should intensify their commitment towards providing drugs and other materials needed that will motivate expectant mothers to be attending antenatal and postnatal care services regularly; ward heads, opinion leaders, the mass media such as radio and television, religious and traditional leaders should intensify their effort toward enlightening husbands about the importance of having antenatal and postnatal care services by their wives and newborn. This is because now a day a lot of health problems that were not experienced before are surfacing. Thus, it is only through attending antenatal and postnatal care services by women that these problems can be addressed.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Antenatal and postnatal health care utilization services are imperative strategy to decrease maternal morbidity and mortality. World over, an approximate of 536,000 maternal deaths occur annually, equivalent to 810 women died each day, of which over 95% occur in sub-Saharan Africa and Asia. Africa has the highest burden of maternal mortality in the world and sub-Saharan Africa is largely responsible for the dismal maternal death figure for that region, contributing approximately 98% of the maternal deaths for the region. The lifetime risk of maternal death in sub- Saharan Africa is 1 in 22 mothers compared to 1 in 210 in Northern Africa, 1 in 62 for Oceania, 1 in 120 for Asia, and 1 in 290 for Latin America and the Caribbean (Babalola & Fatusi, 2009).This is due to lack of effective utilization of antenatal and postnatal care services by most pregnant women.

Antenatal care (ANC) is the care that a woman receives throughout her pregnancy and some weeks post-partum. The rationale for providing ANC is to screen predominantly healthy pregnant women to detect early signs of, or risk factors for, abnormal conditions or disease and to follow this detection with effective and timely intervention (Lumbiganon et al., 2004). On the other hand, postnatal care (PNC) is the care provided to women and newborn in the first six weeks after birth. The care starts from the birth of the baby to six consecutive weeks with the recommended time of visit, that is, 6–24 hours, 3–6 days, and 6 weeks following childbirth (Limenih,, Endale, & Dachew, 2016).

Antenatal and postnatal cares are important determinants of maternal mortality rate and among the basic components of maternal care in Nigeria. World Health Organization (2010) noted that, antenatal care is a dichotomous variable with a pregnant woman having one or more visit to a trained person during the pregnancy, while postnatal care is a care

given for all mothers and their newborns following delivery to six weeks period. While available evidence indicates limited benefit from traditional maternal care services, antenatal and postnatal care provides opportunity for early detection of diseases and timely treatment. It also provides opportunities for preventive health care services such as immunization against neonatal tetanus, prophylactic treatment of malaria through the use of intermittent presumptive treatment approach, and HIV counselling and testing (Babalola & Fatusi, 2009).

Furthermore, antenatal care exposes pregnant women to counselling and education about their own health and the care of their children. Thus, antenatal care may be particularly advantageous in resource-poor developing countries, where health seeking behavior is inadequate, access to health services is otherwise limited, and most mothers are poor, illiterate or rural dwellers (Babalola & Fatusi, 2009). With the strong positive association that has been shown to exist between level of care obtained during pregnancy and the use of safe delivery care, antenatal care also stands to contribute indirectly to maternal mortality reduction.

In Nigeria, estimates of maternal mortality ratio vary from 300 to 400 per 100,000 live births in parts of Southwest Nigeria to as high as 1,800 per 100,000 live births in Northwest and Northeast of Nigeria (FMOH, 2011). The number of maternal deaths in Nigeria going by the WHO, UNFPA and UNICEF estimates of maternal mortality in 2010 was 57,000; giving a maternal mortality ratio of 867 per 100,000 live births; range from 673 to 1,130 per 100,000 live births. The Nigerian Demographic and Health Survey [NDHS], (2013) noted that, 11.5% of women of the Northwest region of Nigeria delivered at a health facility, while 19.5 and 45.7% of women of the Northeast and Northcentral regions, respectively delivered at a health facility. This was in sharp contrast to the 78.1 and 75.0% of women in the Southeast and Southwest region of the country who delivered at a health facility.

In another baseline survey by the United Nations Population Fund [UNFPA] (2013) of UNFPA Assisted States in Nigeria, the proportion of women who delivered in a health facility was found to be high in Anambra (87`1.9%), Abia (82.8%), Osun (76.4%) and Ogun (74.2%) states, while in Sokoto (5.7%), Kebbi (8.2%), Katsina (7.5%) and Kaduna (12.5%) states, the proportions were extremely low (UNFPA, 2010). Furthermore, a cross-sectional study carried out among women in a semi-urban settlement in Giwa, Northwestern Nigeria revealed that majority (76%) of the women had their deliveries at home and were not supervised by skilled personnel (Idris, Sambo & Ibrahim, 2013). Antenatal and postnatal care service utilization has been identified as an important strategy for reducing maternal morbidity and mortality thereby improving maternal health. Nigeria over the years has adopted ANC and PNC as part of her health delivery services. However, studies that explore the factors affecting the utilisation of antenatal and postnatal service for continuum of care from women's perspective in Makarfi Local Government are rare. Hence, to formulate strategies that promote antenatal and postnatal utilisation for continuum of care, there is an urgent need for empirical information on the factors affecting the utilisation of antenatal and postnatal in Makarfi Local Government Area of Kaduna State.

1.2 Statement of the Research Problem

In a preliminary visit to Makarfi LGA Health Department in 17th June, 2017 by the researcher, it was found that the PHC centers in this area provide some antenatal and postnatal services free yet some women seem to be reluctant to attend. This is largely attributed to their lack of understanding of its value and preference for what a traditional birth attendant (TBA) usually offers. Those who eventually attend the antenatal care clinic either start late, miss appointments or even fail to take or buy their drugs when the PHC centers run short of drugs. Most of them too, do not deliver in the hospital, putting them at risk. Attempts to explain this situation have largely focused on individual and household level factors with

little attention on the community level factors. The study therefore, paid close attention to various types of maternal and post-natal services available and the extent to which social, economic and cultural factors affects the utilization of existing antenatal/postnatal health services in Makarfi Local Government Area, Kaduna state.

Globally, maternal mortality is still a challenge. As at 2013, maternal deaths were estimated to be about 289,000 deaths, equivalent to 800 women dying each day due to pregnancy and childbirth. The maternal mortality ratio (MMR) has reduced by 45%; from 380 to 210 maternal deaths per 100,000 live births between 1990 and 2013. Similarly, the infant mortality rate has dropped by 40%; from 90 (in 1990) to 54 deaths per 1,000 live births (in 2014) (United Nations, 2015 & WHO, 2015). Even though some countries have made remarkable progresses, half of the maternal deaths in the world still take place in Sub-Saharan Africa (SSA) where little or no improvement has been made (Somefun & Ibisomi, 2016).

Together with Southern Asia, SSA account for 86% of maternal deaths which is about 14 times higher than the developed world (UN, 2015). Nigeria still ranks among the highest with regard to maternal deaths due to poor utilization of antenatal and postnatal care services. Nigeria's Maternal Mortality Rate (MMR) range from 300 per 100,000 live births in the southern region to 1,000 per 100,000 live births in the northern region, approximately 40% of women experience complications after delivery and an estimated 15% develop potentially life-threatening complications (Abdulmalik et al. 2013; Federal Republic OF Nigeria [FRN], 2013 & United Nations [UN], 2015). Most maternal and infant deaths occur in the first month after birth: almost half of all maternal deaths occur within the first 24 hours and 66% during the first week (1–3). The first week of life, and certainly the first two days, is the most crucial periods for PNC. This period is a critical time to reach mother and newborn with packages of

preventive and health promotion interventions as well as ensuring access to case management for illnesses (Iyanda, 2017).

Evidence from studies have clearly established the inverse relationship between ante-natal care, postnatal care and the occurrence of maternal deaths. Thus, the considerable variation in the maternal mortality estimates between different locations within the same region can be attributed, to a large degree, to the differences in the availability of and access to modern maternal health services (Babalola & Fatusi, 2009; Ugbor, David-Wayas, Arua & Nwanosike, 2017). The use of ante-natal and post-natal services also contributes to neonatal health outcomes as the health of the mother and the newborn is closely linked. Maternal complications in labour, for example, carry a high risk of neonatal death. Three-quarters of neonatal deaths occur in the first week, and the highest risk of death is on the first day of life. Furthermore, the main direct causes of neonatal death, globally, are preterm birth (28%), severe infections (26%), and asphyxia (23%). This epidemiological picture underscores the contribution of the delivery process to neonatal deaths (Babalola & Fatusi, 2009).

Studies have also shown that women with postpartum haemorrhage or baby with birth asphyxia, sepsis, or complications of preterm birth can die within hours or even minutes if appropriate care is not provided. The delayed attention to complications during labour usually lead to poor outcomes such as intrapartum stillbirths, neonatal illness, disability, obstetric fistula, and other long-term obstetric complications. Although the nature and frequency of this care differs significantly, the need for care and support after birth is not well recognized in Nigeria and Makarfi Local Government Area of Kaduna state. Rates of provision of skilled care are lower after childbirth than during pregnancy or childbirth, despite both the risks for illness and the potential to improve longer-term outcomes are great.

Despite the availability of few records concerning utilization of ANC and PNC services in Kaduna State, no documented research evidence is available to show the pattern and level

of utilization of the services among women in the rural areas across the state. In addition, no documented cross-sectional study has been conducted to identify the levels of utilization of various components of the services by women in the rural areas. This study is therefore, aimed at assessing the quality of modern maternal health services provided at the health care level, the women's access to and utilization of modern ANC and PNC services and to identify the factors that influence the utilization of the services among women of reproductive age.

1.3 Research Questions

This study is guided by the following research questions:

1. What are the various types of antenatal and post-natal services available to women of reproductive age in Makarfi L.G.A?
2. What is the level of utilization of the existing antenatal/ postnatal health services in the study area?
3. What are the social, economic and cultural factors that determine the use and non-use of antenatal and post-natal health services in Makarfi?
4. What are the various measures that could be introduced to enhance utilization of antenatal and postnatal care in the study area?

1.4 Aim and Objectives of the Study

The broad aim of this study was to make a sociological analysis of factors affecting the utilization of antenatal and postnatal services in Makarfi local government area of Kaduna state, Nigeria. While, the specific objectives of the study were to:

1. To investigate various types of antenatal and post-natal services available to women of reproductive age in Makarfi L.G.A.
2. To study the level of utilization of the existing antenatal/ postnatal health services in the study area.

3. To examine the social, economic and cultural factors that determine the use and non-use of antenatal and post-natal health services in Makarfi.
4. To determine the various measures that were introduced to enhance utilization of antenatal and postnatal care in the study area.

1.5 Significance of the Study

This study aims at making a sociological analysis of utilization of antenatal and postnatal services in Makarfi Local Government Area of Kaduna State. The study will add to the body of existing knowledge in the area and beneficial to all stakeholders on health; researchers, health practitioners and policy makers. More so, government establishments like Ministry of health, United Nations Children Endowment Fund (UNICEF), World Health Organization (WHO), State and Local Government levels will find the data useful. Moreover, it will serve as a reference point to future researchers in the area.

The study is also important, for the reason that it will suggest appropriate strategies that will enhance utilization of antenatal and postnatal health care services in the study area. The findings from this study will draw attention to the problem of basic health care services in Nigeria on the need to take more proactive measures towards basic health care services as we have in developed countries.

Finally, the study will contribute to the existing knowledge on the impact of effective utilization of antenatal and postnatal services in the area of study in particular and the country in general. This therefore, will fill in the gaps in the existing knowledge in area which can be referred to by other people who intend to carry out further investigation.

1.6 Scope of the Study

This study is confined to the sociological analysis of utilization of antenatal and postnatal services. In particular, the study covers types of antenatal and postnatal services available, the utilization and socio-cultural and economic factors affecting the utilization of

the services in Makarfi Local Government Area of Kaduna state. The researcher would have loved to cover the whole Kaduna State but due to the financial problem and time constraints, Makarfi Local Government Area only was selected. The study covers women of reproductive age attending General Hospital Makarfi and Primary Health Care centers located in each ward in Makarfi Local Government Area which include: Tudun wadan Makarfi ward , Gazara, Mayere, Gubuchi, Nasarawan Doya, Gwanki, Gimi, Danguziri, Makarfi and Marke ward. However, the selection of the respondents will cover; health care practitioners such as physicians, nurses, community health workers, midwifery, traditional birth attendants, community leaders and mothers. The choice of Makarfi Local Government as the study area was informed by the fact that the Local Government Area just like other Local Government Areas in Nigeria and Kaduna State in particular is experiencing a lot of maternal and newborn deaths which most of the scholars strongly agreed could be avoided through using key health interventions like; provision of antenatal and postnatal services. Besides, proximity as well as familiarity played significant role in selecting Makarfi Local Government as the study area.

1.7 Operationalization of key concepts

Antenatal: is a medical care given to pregnant woman throughout the period of her pregnancy.

Post-natal: this is a medical care provides to both mother and her new born baby or babies from the time of delivery up to consecutive six weeks which is equivalent to forty-two days.

Pregnancy: is the state of being pregnant

Pregnant: is any woman having a baby or babies developing inside her body from the time of conception to the time of delivery.

Maternity: this is the state of being or becoming a mother due conception that has taken place in her body

Mortality: is the total number of deaths in a particular situation or period of time that have taken place within a specific area.

Delivery: is act of giving birth to a new baby

Reproductive: it deals with reproducing or act of producing new baby or babies

Neonatal: it concerns with the child that has just been born not for a long period of time

Culture: is the accumulated knowledge, values, ideas, beliefs, materials and non-materials objects that are shared and have been passed from one generation to another among the individual members in a society.

Economic: is an activity one involved in life to earns his or her living so that to provide basic necessity for life such as provision health care services.

CHAPTER TWO

LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.0 Introduction

This chapter critically reviews the concept and empirical studies on antenatal and postnatal care, availability of maternal and post-natal services for women of reproductive age; Utilization of Antenatal/post-natal health services; Social, Economic and Cultural factors affecting use and non-use of antenatal/postnatal health service in Nigeria. It also provides the theoretical framework for the study in which the Marxist political economy of health was reviewed and adopted for the study.

2.1 Conceptual Clarification

2.1.1 Antenatal Care

Antenatal Care (ANC) is an umbrella term used to describe the medical procedures and care that are carried out during pregnancy. It is the care a woman receives throughout her pregnancy and is important in helping to ensure a healthy pregnancy state and safe childbirth. The objective, therefore, of antenatal care is to assure that every wanted pregnancy results in the delivery of a healthy baby without impairing the mother's health (Ekabua, Ekabua & Njoku, 2011). Antenatal care refers to the regular medical and nursing care recommended for women during pregnancy. Furthermore, it is a type of preventive care with the goal of providing regular checkups that allow doctors or midwives to prevent, detect as well as treat potential health problems that may arise in a pregnant woman (WHO, 2005). Antenatal care, the care that a woman receives during pregnancy, helps to ensure healthy outcomes for women and newborns (WHO/UNICEF 2003).

Antenatal care is the care women receive throughout the period of their pregnancies in order to ensure that the women and their newborns survive pregnancy and childbirth (Fraser, Cooper & Nolte, 2006). Antenatal care should be received from qualified health care professionals (nurses, midwives or doctors) during pregnancy with the aim of tracking the

progress of the baby as well as to monitor the health of both the mother and the baby. UNICEF/WHO (2003) outlined the main functions of antenatal care as:

i. Preparing the pregnant woman and her family for childbirth.

ii. Educating the pregnant woman, her family and the community about pregnancy, childbirth and general health promotion.

iii. Assessing and monitoring the health status of the woman and the progress of the pregnancy.

iv. Providing appropriate preventive measures such as nutritional supplements like iron and folic acid, provision of tetanus immunization, malaria prophylaxis/treatment as indicated.

v. Diagnoses and treatment of complications of pregnancy.

This care is provided on scheduled visits unless complications necessitate otherwise. The usual approach to antenatal care, which is based on European models developed in the early 1900s, assumes that frequent visit to the clinics is desirable for pregnant women. Frequent visits to the antenatal clinic were the norm, and the women are classified by risk categories to determine their chances of complications and the type of care they need. Many developing countries have adopted this approach although, apparently oblivious of long distance to clinics and inability of poor women to afford the transport fare (Fraser, Cooper & Nolte, 2006).

The scheduled visits recommended by Cicekliogl u, Soyer and Ocek in Nwosu, Urama and Uruakpa (2012) are; the first (booking) appointment which should take place before 12 weeks of pregnancy and should give opportunity for patient assessment, health education and baseline investigations; the second visit at 16 weeks of pregnancy to assess the progress of pregnancy and initiate iron and calcium supplements to the pregnant woman; the third visit at 20 weeks of pregnancy during which an ultra sound scan is recommended to check for any

structural abnormalities affecting the baby, while the fourth visit is at 24 weeks of pregnancy for routine medical examination of the mother and the expected baby, the fifth visit at the 28th week of pregnancy is to treat any case of haemoglobin level below 10g/dl and to provide anti - D prophylaxis for mothers with rhesus factor negative.

The sixth visit as explained by Cicekliogl u, Soyer and Ocek (2005) is usually carried out at the 36th week of pregnancy for routine medical checks of the mother and baby while the seventh visit often carried out at the 40th week of pregnancy for routine assessment of the mother and baby and the eighth visit is also for routine checks. Azuogu, Azuogu and Nwonwu (2011) explained that this schedule was not evidence-based and often discouraged the women because of its frequency. They explained that a good antenatal care should be able to separate the women into those eligible for the basic antenatal care and those at risk.

According to Azuogu, Azuogu and Nwonwu (2011) those at risk should be seen at more frequent intervals, referred to higher levels of care to ensure their safety and that of the unborn child. Karanja in Olufunmilayo and Olusola (2011) explained that these schedule of visits and activities are usually modified based on the health status of individual women and the baby. Considering the need to modify the antenatal care so as to ensure compliance and make it more practicable, the WHO (2005) introduced the concept focused antenatal care and recommended that a minimum of four (4) antenatal visits is necessary for a pregnant woman and that the guideline for antenatal visits in all countries should include at least, the measurement of blood pressure, testing of urine for disease germs, glucose and protein and blood tests to detect syphilis, HIV and severe anaemia and to provide to the mothers information that will improve their health and prevent complications associated with pregnancy and childbirth. For a normal pregnancy, these visits should take place within the first 12 weeks of pregnancy, at 26 weeks, 32 weeks and 36 weeks of pregnancy.

Babalola and Fatusi (2009) explained that while available evidence indicates limited benefit from traditional antenatal care services, focused antenatal care provides opportunity for early detection of diseases and timely treatment. It also provides opportunities for preventive health care services such as immunization against neonatal tetanus, prophylactic treatment of malaria through the use of intermittent presumptive treatment approach, and HIV counselling and testing. Furthermore, antenatal care exposes especially the less knowledgeable pregnant women to counselling and education about their own health and the care of their children. Thus, antenatal care may be particularly advantageous in resource-poor developing countries, where both health services and health seeking behaviour are inadequate. According to the UNICEF (2008), the antenatal care period presents important opportunities for reaching the pregnant woman with a number of interventions that may be vital to their health and well-being and that of their babies. Regular contact with the doctor, nurse or midwife allows the health personnel to manage the pregnancy and provide a variety of services which include treatment of hypertension to prevent eclampsia, tetanus immunization, intermittent preventive treatment for malaria and distribution of insecticide-treated mosquito nets, prevention of mother-to-child transmission of HIV, micronutrient supplementation and birth preparedness including the provision of information about danger signs during pregnancy and childbirth.

Lucas and Gilles in Mohammed and Isa (2015) added that the antenatal care period also provides opportunity for the supply of information on birth spacing which is recognized as an important factor in improving infant survival. According to the latest estimates from a Multiple Indicator Cluster Survey, the WHO (2009) reported that 78% of women in the developing world receive antenatal care from skilled health care providers at least once during pregnancy as against more than 98% in the developed countries while the regional averages in Central and Eastern Europe/Commonwealth of Independent States ranges from

68% to 95%. It has been reported that more than 9 in 10 pregnant women that are attended to at least once in Latin America and the Caribbean and in East Asia and the Pacific (Stephenson, Baschieri, Clements, Hennik & Madise, 2006).

In a study in South-eastern Nigeria, Shiffman and Okonofua, (2007) found that less than half of all women in the developing countries benefit from the minimum recommended four (4) antenatal visits while in South Asia, just one third of pregnant women receive care at least four times (WHO, 2009). In Nigeria, about 64% of women receive antenatal care from qualified health care provider but only 28% from the Northwest which shares some characteristics with people in parts of Niger state, 54% from the Northeast and 56% from the North-central geopolitical zones (Health Reform Foundation of Nigeria-HERFON, 2006). These suggest that the remaining women either do not receive antenatal care at all or receive care from untrained traditional birth attendants, herbalists or prayer houses.

2.1.2 Postnatal Care

Postnatal period is the time beginning immediately after the birth of a child and extending to 42 days (Fraser et al, 2006) while postnatal care is the health care given to the mother and the newborn immediately after delivery through the first 42 days after childbirth (Park, 2006). Biologically, the postnatal period is the time after delivery in which the mothers body including the hormonal levels and the uterus (womb) returns to the pre-pregnancy state. Rosman and Graham (2006) outlined the following objectives of postnatal care:

i. Prevent postpartum complications such as puerperal sepsis.
ii. Rapid restoration of the mother to optimum health.
iii. Check the adequacy of the breast feeding.
iv. Provide family planning services.
v. Provide basic health education to the mother and the family.

The postnatal period is critical to the health and survival of a mother and her newborn. The most vulnerable time for both the mother and child is during the hours and days after birth. Lack of care in this period may result in death or disability as well as missed opportunities to promote healthy behaviours affecting women, newborns, and children (Stephenson et al, 2006).

In a study on maternal mortality and access to obstetric services in West Africa, Rosmans, Etard, Walraven, Hoj, Dumont and Bernis (2003) reported that half of all postnatal maternal deaths occur during the first week after the baby is born and majority of these occur during the first 24 37 hours after childbirth. Rosman et al (2003) added that the leading cause of maternal mortality in Africa is haemorrhage which accounts for 34% of maternal deaths. The majority of these occur during the postnatal period. Falkingham (2003) reported that puerperal sepsis and infection claim another 10% of maternal deaths. Virtually all of these occur during the postnatal period.

Despite the importance of postnatal care to both the mother and the child, it has been reported by NDHS (2003) that only about 23% of women who gave birth outside a health care facility receive postnatal care within two days of birth and 3% have medical check-up within the first week after childbirth while about 70% of women that deliver outside a health facility receive no modern postnatal care. Variation has been recorded between attendance for antenatal care and postnatal care among women in some parts of Nigeria. Galadanci, etal (2007) found that only 11.4% of women who received antenatal care returned for postnatal care after 6 weeks of childbirth in the UNICEF zone D made up of Adamawa, Bauchi, Borno, Gombe, Jigawa, Kano, Nasarawa, Plateau, Taraba and Yobe states of Nigeria. This has added to the increased maternal mortality and morbidity in these parts of the country.

2.2 Types of Antenatal and Post-natal Services Available for Women of Reproductive age

In Nigeria, antenatal care services include history of previous and current pregnancies, routine measurement of weight, height and blood pressure, abdominal palpation, nutritional advice, examination for the presence or absence of oedema, distribution of iron and folate supplements, malaria prophylaxis, blood testing for haemoglobin, urine testing for protein and tetanus toxoid vaccination (Osungbade, Oginni & Olumide, 2008).

Recent evidence has shown that some components of antenatal care, such as routine measurement of height and weight, and examination for the presence or absence of oedema, have not been found to have any impact in reducing the risk of serious complications and maternal deaths. Furthermore, severe bleeding in pregnancy, which accounts for 24–28% of maternal deaths, has many causes; none of which can be eliminated through antenatal care. World Health Organization recently advocated that only examinations and tests serving an immediate purpose and proven to be beneficial should be performed during antenatal visits. These examinations should include, at a minimum, measurement of blood pressure, testing of urine for bacteriuria and proteinuria, and blood tests to detect syphilis and severe anaemia (Osungbade, Oginni & Olumide, 2008).

On the other hand, postnatal period is defined as the first six weeks after birth – is critical to the health and survival of a mother and her newborn. The most vulnerable time for both is during the hours and days after birth. Lack of care in this time period may result in death or disability as well as missed opportunities to promote healthy behaviours, affecting women, newborns, and children (WHO, 2012; Asefa & Giru, 2016). Study conducted by WHO (2012) have established that, half of all postnatal maternal deaths occur during the first week after the baby is born, and the majority of these occur during the first 24 hours after childbirth. The leading cause of maternal mortality in Africa and Nigeria in particular

accounting for 34 percent of deaths is haemorrhage, the majority of which occurs postnatally. Sepsis and infection claim another 10 percent of maternal deaths, virtually all during the postnatal period. HIV-positive mothers are at greater risk of postnatal maternal death than HIV-negative women. Access to family planning in the early postnatal period is also important, and lack of effective PNC contributes to frequent, poorly spaced pregnancies (WHO, 2012).

Similarly, Sub-Saharan Africa has the highest rates of neonatal mortality in the world and has shown the slowest progress in reducing newborn deaths, especially deaths in the first week of life. Each year, at least 1.16 million African babies die in the first 28 days of life – and 850,000 of these babies do not live past the week they are born. Asphyxia claims many babies during the first day, and the majority of deaths due to preterm birth occur during the first week. Thirty-eight percent of babies in sub-Saharan Africa die of infections, mainly after the first week of life. The majority of these deaths are Low Birth Weight (LBW) babies, many of whom are preterm. In addition, long term disability and poor development often originate from childbirth and the early postnatal period (WHO, 2013; Worku, Yalew & Afework. 2013).

More so, at least one in four child deaths occur during the first month of life. These deaths often take place before child health services begin to provide care, usually at six weeks for the first immunisation visit. Low coverage of care in the postnatal period negatively influences other Maternal, Newborn, and Child Health (MNCH) programmes along the continuum of care. For example, the lack of support for healthy home behaviours, such as breastfeeding, can have ongoing effects for the child in terms of undernutrition.. Additionally, newborns and mothers are frequently lost to follow up during the postnatal period for prevention of mother-to-child transmission (PMTCT) of HIV (Regassa, 2011; Berhe, Tilahun, Aregay, Bruh, & Gebremedhim, 2013).

Based on the fact that, post natal period is critical to the new mother and babies, the types of postnatal care: services provided include: Essential routine PNC for all mothers; Assess and check for bleeding, check temperature; Support breastfeeding, checking the breasts to prevent mastitis; Manage anaemia, promote nutrition and insecticide treated bednets, give vitamin A supplementation; Complete tetanus toxoid immunisation, if required; Provide counseling and a range of options for family planning; Refer for complications such as bleeding, infections, or postnatal depression; and Counsel on danger signs and home care (Fekadu, & Regassa, 2014; Tesfahun, Worku, Mazengiya & Kifle, 2014; WHO, 2014; Asefa & Giru, 2016).

Moreover, other postnatal care services include: Essential routine PNC for all newborns; Assess for danger signs, measure and record weight, and check temperature and feeding; Support optimal feeding practices, particularly exclusive breastfeeding; Promote hygiene and good skin, eye, and cord care; If prophylactic eye care is local policy and has not been given, it is still effective until 12 hours after birth; Promote clean, dry cord care; Identify superficial skin infections, such as pus draining from umbilicus, redness extending from umbilicus to skin, more than 10 skin pustules, and swelling, redness, and hardness of skin, and treat or refer if the baby also has danger signs; Ensure warmth by delaying the baby's first bath to after the first 24 hours, practising skin-to-skin care, and putting a hat on the baby; Facilitating birth registration; Refer for routine immunisationsl and Counsel on danger signs and home care (WHO, 2014; Asefa & Giru, 2016). Despite the fact that, these antenatal and postnatal care services are basic for all pregnant women, new mothers and their babies, the availability of these types of services in primary and secondary health care centres in Makarfi Local Government area has not been established through research of this kind to the best of my knowledge. This study therefore seeks to fill the gap.

2.3 Utilization of Antenatal and Post-Natal Health Services

Not all pregnant women attend antenatal care (ANC), of those that attend, many fail to make the recommended 4 visits. Many women give birth in homes attended by unskilled health workers. This is buttressed by the proportion of pregnant women that had made at least a single ANC visit between 2005 – 2012 worldwide stood at 81%; however, only 55% had actually made the recommended four (4) ANC visits, indicating sub-optimal use of ANC services that will facilitate the detection and management of complications that do arise during pregnancy (WHO, 2013a). Among the 6 WHO regions, only the Americas and European regions that have achieved 86% and 80% respectively, regarding the proportion of women that have attended four ANC visits. While in African and Eastern Mediterranean regions less than half of all pregnant women had attended four ANC visits between 2005 – 2012 (WHO, 2013a).

One of the reasons for the low number of ANC visits was because less than 50% of all pregnant women commence ANC visit in the first trimester. In some countries of Africa, the figure is as low as 10%. For instance, women who reported to have had at least one ANC visit in Malawi, half did so in the first trimester, while in Senegal, more than 90% of pregnant women were reported to have had their first ANC visit in the third trimester. Without doubt, such practices will not enhance the attainment of the primary objective of ANC aimed to identify and commence early management of high risk pregnancies (Ezugwu, Agu, Nwoke, & Ezugwu, 2014; Wang et al., 2011).

In Nigeria, 25%, 64% and 11% of pregnant women had their first ANC in the first, second and third trimester respectively suggesting that the majority of women have commenced ANC after five months (Wang, Alva, Wang & Fort, 2011). This could have led to the late identification of complicated pregnancies and partly responsible for Nigeria being among the top 11 countries with the highest MMR in the world (WHO et al., 2010). The North east and

north west of Nigeria had the lowest use of ANC and PNC services. A pregnant woman in the South west zone is 6 and 9 times more likely to have 4 ANC visits compared to her counterparts in the North West and North East zones of Nigeria respectively (Health Reform Foundation of Nigeria, 2007).

Gazali, Muktar and Gana (2010) conducted a study in Maiduguri, Borno State, to identify the barriers to utilization of maternal healthcare facilities among pregnant and non-pregnant women of child bearing age in Maiduguri Metropolitan council and Jere LGAS. They used survey method to collect data for the study. They administered seventy eight questionnaire and six in-depth interviews plus four sessions of focus group discussion. They conducted three sessions in each of the two local government areas. Findings from their studies reveal that socio cultural factors affect the use of maternal healthcare services in the LGAs under study. These factors are associated with the tradition, norms and values of people that affect the way and manner in which they seek medical help although this study could not be generalized due to some limitations. In their study also, they found that socio demographic factors also play important role in how sickness and illness are acted upon and the pattern of utilization of healthcare services. Although some factors may be individual others are institutional based. Conclusively, the study revealed that poverty, socio-cultural beliefs and practices, attitude of health workers and availability of facility and quality service. Others are cost, distance, time, lack of drugs, equipment and qualified health personnel, etc. consequently; there is low utilization of the maternal health care facility in the study areas.

Butawa, etal (2010) carried out a study to explore knowledge and perceptions of maternal health and awareness of health services among women and men of reproductive age in rural communities in Zaria, Kaduna state Nigeria. It was a cross sectional descriptive study which is made up of the sample of 647 respondents, consisting of men and women.

Respondents were between the ages of 15 and 49, except for 17 younger married girls and 49 men and women who were over 50 years of age. They used closed-ended questionnaire to collect information from 326 women who had delivered within the past two years and 321 adult male heads of household. The questions were asked of husbands and wives, with some men having more than one wife. In a three point scale (poor, fair, good), only 3.1% of men and 1.2% of women had good knowledge of maternal health. The association between the respondents‟ educational level and their maternal health knowledge was statistically significant. Socio-economic barriers were identified as limiting this population's optimal utilization of maternal health services. Also, some respondents‟ perceived available health care services to be of low quality. They concluded that for reproductive health to be improved in the rural part of Northern, Nigeria, formal education must be improved as well. Also the quality of maternal care given by the attendants must be improved and there should be increase awareness about maternal healthcare services in the rural area of the North.

Dairo and Owoyokun (2010) conducted a study on factors affecting the utilization of antenatal care services in Ibadan, Nigeria. A cross-sectional study was carried out in two randomly selected local government council area in Ibadan. A pretested questionnaire was administered to 400 women. Information was obtained from the women on their attendance at antenatal clinic and the reasons for not attending the antenatal clinics. The result showed that, majority (76.8%) of the respondents attended ANC clinic. Women in urban areas were more than 2 times likely to attend antenatal clinic than women in urban areas. Women who were Muslims or other religions were more than 2 times likely to attend ANC clinic than women who were Christians. Also, women who were 25 years and older were more than 2 times more likely to utilize antenatal than women who were 25 years or younger.

Abubakar, Sambo and Idris (2011) assessed the awareness and utilisation of antenatal care services and delivery services in a rural community, Northwestern Nigeria. The study was a

cross sectional descriptive study. A structured interviewer administered questionnaire was used to collect information on awareness and utilization of antenatal care services amongst women in the reproductive age group including attendant at last delivery in Bomo village, North Western Nigeria. The result revealed that Two hundred and sixty women in the reproductive age group participated in the study. More than half of the respondents (58%) were 29years and below. All the women were aware about ANC services while 83% had used the ANC services during their previous pregnancy. However, only 8% of the women were attended to by a skilled attendant at last delivery. More than half (58%) of the women delivered at home unattended to by anyone.

Regassa (2011) conducted a study on antenatal and postnatal care service utilization in Southern Ethiopia: a population-based study. The study examined the prevalence and factors associated with antenatal Care (ANC) and Postnatal Care (PNC) service utilizations. A cross-sectional population based study undertaken in 10 rural villages of the Sidama zone, southern Ethiopia. The data were collected from a representative sample of 1,094 households drawn from the study population using a combination of simple random and multistage sampling techniques. Two dependent variables were used in the analysis: The ANC, measured by whether a woman got the service (at least once) from a health professional or not during her last pregnancy and PNC which was approximated by whether the last born child completed the required immunization or not. Household and women's characteristics were used as explanatory variables for both dependent variables. The result revealed that, the level of ANC and PNC service utilizations is 77.4 % and 37.2% respectively. The predicted probabilities, using logistic regression, showed that women who are literate, have exposure to media, and women with low parity are more likely to use both ANC and PNC services.

Onasaga, etal (2012) conducted a study in Ife central, Osun State, Nigeria to determine the factors influencing the utilization of antenatal clinic among pregnant women in Ife central, Ile Ife. They used descriptive research design with stratified sampling technique to select 102 women in Ile Ife central local government area. They collected data using questionnaires and utilize both descriptive and inferential statistics to analyze the data they got from the respondents setting a level of significance at 5% (0.05). Findings from their studies reveal that majority of respondent, 47.1% first heard of ANC in the hospital. 85% of the respondent knew that the service was available in the hospital. 57% of respondent attended ANC regularly. The study showed that majority of the respondent opined that affordability of antenatal services, schedule of ANC, and lack of knowledge about existing services in ANC and husbands acceptance of the services rendered as a major factor prohibiting them from using the services. Their findings reveal that there is also significant association between knowledge, distance, marital status, religion and level of education of respondent under the study and their utilization of ANC services with $p < 0.05$ but no association was found between parity and occupation of respondent under the study and their utilization of ANC services.

Ugal, etal (2012) conducted a study in Obudu and Ogoja local government area of Cross River State, Nigeria to assess the availability, utilization and relationship with maternal health outcome (childbirth). The cross sectional study was carried out among women of reproductive age in the urban areas of Obudu and Ogoja Local Governments of Cross River State, Nigeria. The results of the study indicated that maternal health facilities were available but majority of them do not satisfy the international standards for both Basic Essential Obstetrics Care (BEOC) and Comprehensive Essential Obstetrics Care (CEOC). In addition, the utilization of health facilities was hampered by cost, culture and decision-making. The study also found that there was a significant relationship between utilization of

maternal health facilities and maternal health outcome manifest in successful and healthy birth outcomes. They recommended that upgrading of maternal health facilities in all areas is germane to improving maternal health outcome. This can be achieved by providing facilities cheaply and readily to the people and relevant information to women.

Ibor, etal (2012) carried out a study to examine the utilization of antenatal care centers in Ibadan, Oyo State. The purpose of the study was to evaluate the utilization of antenatal care centers among child-bearing women in Ibadan North Local Government Area, of Oyo State, Nigeria. They obtained data for the study through the administration of two hundred and thirty-one copies of questionnaire to child bearing women and the data was analyzed using tables, simple percentages and multiple regression analysis. The result showed that 6.3% of the utilization of ANC by childbearing women was explained by age, cultural preference, income, education, religion, marital status and occupation. The strength of contribution of each of these selected factors showed that mother's education had the greatest contribution to the utilization of ANC, followed by cultural preference, income, marital status and mother's occupation. The ANOVA result also indicated that age, culture, income, education, religion, marital status and occupation significantly influenced the utilization of ANC by child-bearing women. The study therefore, revealed that though the utilization of ANC centers was low but the combination of socioeconomic and demographic variables significantly influenced their utilization by child-bearing women. From the findings of the study, they made a recommendation that government and other sponsoring agencies should provide antenatal care free or subsidize the charges in order to guarantee easier access to ANC by childbearing women.

Idris, Sambo and Ibrahim (2013) carried out a study in the Northern part of Nigeria, to determine the barriers to utilization of maternal health services from the perspective of mothers in northwestern Nigeria. It was cross-sectional study of 150 mothers, selected

through multistage technique, Data were collected using a structured interviewer-administered questionnaire, and analyzed using SPSS statistics. They found that the use of MHS among the study subjects was poor. The major reasons that the subjects gave for poor use of maternal healthcare facilities were that they had never experienced obstetric complication in the past and also the health care provider in the healthcare facility showed negative attitudes to them. Cost of care was not seen as prominent factor hindering them from utilizing the healthcare facility. They recommended that, while there is a need to increase the use of MHS by raising awareness on it, bringing it closer to the mothers and making it more affordable, there is a more pressing need to improve its quality which could be achieved by building the capacity of the health care providers on modern concepts for delivery of MHS. Furthermore, they prescribed that further studies should be carried out to explore ways through which the negative attitude of health care providers could be alleviated.

Yar'zever and Said (2013) evaluated the knowledge and barriers in utilization of maternal health care services in Kano State, Northern Nigeria. The study utilized cross-sectional descriptive study explored knowledge and Utilization of maternal health services among Urban and Rural reproductive women. The views of (n=1000) married women within the age group of 14 to 49years were selected randomly both in urban and rural areas. In a two point scale (good, poor), Knowledge of maternal health facilities and services generally show that urban and rural had extremely good knowledge of maternal health service and programs provided by the government with 99.0% of urban and 82.4% of rural. While overall, only 63.4% and 51.4% both urban and rural utilize health facilities and its programs. There was a statistically significant association between the respondents' level of education, income, age and their knowledge score ($p = 0.005$) for both urban and rural: knowledge of

maternal health facilities was higher among those with formal education, high income and younger respondents

Jacobs, etal (2017) examined the predictors of antenatal care, skilled birth attendance, and postnatal care utilization among the remote and poorest rural communities of Zambia: A multilevel analysis. A cross-sectional baseline household survey was conducted in May 2012. A total of 551 mothers with children between the ages 0 and 5 months were sampled from 29 catchment areas in four rural and remote districts of Zambia using the lot quality assurance sampling method. Using multilevel modeling, we accounted for individual and community-level factors associated with utilization of maternal health-care services, with a focus on antenatal care (ANC), skilled birth attendance (SBA), and postnatal care (PNC). The result revealed that utilization rates of focused ANC, SBA, and PNC within 48h were 30, 37, and 28%, respectively. The mother's ability to take an HIV test and receiving test results and uptake of intermittent preventive treatment for malaria were positive predictors of focused ANC. Receiving ANC at least once from skilled personnel was a significant predictor of SBA and PNC within 48h after delivery. Women who live in centralized rural areas were more likely to use SBA than those living in remote rural areas.

Singh, Ponna, Upadrasta, Dudala and Sadasivuni (2017) assessed the determinants of utilization of antenatal and postnatal care services in Telangana. The objective of this study was to estimate the determinants of utilization of antenatal and postnatal care services stratified by geographical region in Telangana. The researcher used cross-sectional study of District Level Health and Facility Survey-4 of the state of Telangana. Multistage, stratified, probability proportional to size sample with replacement was used. About 3065 women, who delivered after the year 2008, were considered for analysis. Descriptive analysis of components of antenatal and postnatal care services stratified by geographical region was carried out. Binomial logistic regression was carried out to determine association of

demographic, system level variables with adequate antenatal care. Study reveals variation exists across four regions of Telangana in utilization of maternal health services. Reception of adequate antenatal care is low in South region (20.6%) and high in East region (31.5%). Pregnant women with secondary education were 66% more likely to receive adequate antenatal care services compared to illiterate.

Bako, Ukpabi and Egwuda (2017) researched on utilization of Antenatal and Delivery Services: A Cross Sectional Survey of Mothers in Makurdi, Benue State. The study was a cross sectional study including 300 mothers of infants aged less than six months. An interviewer administered structured questionnaire was used to obtain socio demographic data and information on ANC and attendants at last delivery. Data was analyzed using SPSS version 20. Chi-square tests were used to determine associations between outcome and exposure variables. The result showed that, Among the respondents, 94.3% had antenatal care during their last pregnancy, 88% had their delivery at a health facility while 94% were attended to by a skilled birth attendant. About three quarters of the respondents reside within a 30 minutes travel time to the nearest health facility. Higher level education and ANC attendance were significantly associated with health facility delivery.

Thus, the time at which a pregnant woman commence ANC visit and the number of times a woman had antenatal visit, does have strong influence on the maternal health and pregnancy outcome after controlling for place of delivery and availability of skilled man power (Ezugwu et al., 2014; Wang et al., 2011). The fact that not all women that have attended ANC have their deliveries supervised by trained health worker further increases the risk of poor pregnancy outcomes. The proportion of deliveries that were conducted by trained health worker between 2005–2012 worldwide stood at 70%; however, there exist wide disparity between the high income and low income countries with 99% and 37% respectively (WHO, 2013a). The low performing nations are from the WHO African and South East Asia

geopolitical regions, with only 49% and 59% respectively of all births that were attended by skilled health worker.

In Nigeria, only 34% of deliveries are supervised by trained personnel (WHO, 2013a) and many women come in life threatening conditions (Fawole et al., 2012; Garba & Umar, 2013). This means, nearly two thirds of all births were conducted in homes or in health facilities that does not have institutional or technical competence. The reasons for the high proportion of home deliveries could be linked to negative cultural beliefs regarding hospital deliveries, inadequate number of skilled health worker, and the lack of information on the benefits of giving birth in health facility (Fawole et al., 2012; Magoma et al., 2010). Ityavyar in Umar (2016) study in Bodinga, Sokoto State Nigeria, found that the communities perceive lithotomy position preferred in health facilities as psychologically uncomfortable and humiliating because deliveries are conducted by persons whom they consider strangers.

Hence, the author advanced that majority of pregnant women are more disposed to the squatting or knee-chest position during delivery and thus underscores the need for systematic engagement of communities in research, program design and implementation of MHS to enhance the use of modern health services for better outcome of pregnancy. This view is contrary to findings in Assuit district of Egypt, where it was reported there is no significant statistical difference among women that have used MHS to those that never used MHS and the risk of poor pregnancy outcome is even higher among those that deliver in hospitals (Abdullah, Abolayoun, Abdel-Aleem, Moftah, & Ismail in Umar, 2016).

This could be as a result of fallacy in numerical data reasoning, since the author interpreted the data without due consideration on conditions the women presented with, and time of arrival to the hospital, both of which have grave consequences on pregnancy outcomes (Belton, et al., 2014; Essendi, Mills, & Fotso, 2011; Jammeh et al., 2011; Thorsen

mail et al., 2012). The WHO 2005 report noted that, the increasing access to appropriate MHS provided by skilled health workers contributed significantly to the observed decrease in the number of maternal and perinatal neonatal deaths in the developing countries (WHO, 2013a). The increase in access and use of antenatal, natal and post-natal services could be attributable to the increase percentage of skilled health workers, that contributed to the reduction of maternal deaths from 543,000 in 1998 to 287,000 by 2010 (WHO, 2013a). Another major contributory factor to the observed decline is the concerted effort by various Governments and partner agencies in the developing countries, geared towards improving the status of women in terms of equality to access of education and employment following the 1994 Beijing conference and the MDGs declaration in 2000 (UNICEF, 2012).

Women's autonomy measured in terms of her economic independence, capacity to participate in health-related decision making processes at family level, and freedom to go out of home has potential to influence the use of MHS, whether the hospital is located in her place of domicile or not. However, it is important to note that, a study in urban slum of Nairobi Kenya, reported the use of prenatal and postnatal services does not have any significant statistical relationship with the levels of woman's autonomy in terms of decision making, freedom of movement and income independence (Fatso, Ezeh, & Essendi, 2009; Mumtaz & Salway, 2009).

Moreover, the access and use of MHS was reported to be low for women living in communities without appropriate health facility, because of the interactions between transport fare, and cost of fees for services to be rendered (Fatso et al., 2008, 2009).Studies in Ghana (Hagman, 2013); Kenya (Desai et al., 2013; Essendi et al., 2011), and Nigeria (Babalola & Fatusi, 2009; Ebuehi & Akintujoye, 2012; Onah, Ikeako, & Iloabachie, 2006) have indicated that, the institutional and technical competence of a health facility that provides MHS services is a major consideration among women irrespective of their social status. The under

use of MHS commonly seen among rural women in the developing countries in general and African countries in particular, because rural women are largely dependent on their spouse and other family members on financial support and most of them do adhere to the norms and traditions that stressed the authority of husband over their wives (Magoma et al., 2010). A community based study in Nigeria, reported that nearly half of all participants cited the lack of use of modern health services, distance, and the need to have other members of the family to accompany the sick or pregnant women increase the overall cost in terms of transportation fare, feeding and hospital charges (Ayeni in Umar, 2016).

2.4 Social, Economic and Cultural Factors Affecting Use and Non-Use of Antenatal/Postnatal Health Service

There are multiple factors that determine the utilization of antenatal and postnatal care, as well as its nature, and the timing of utilization. Titaley, Dibley, Agho, Roberts and Hall (2008) conducted a study on determinants of neonatal mortality in Indonesia. A qualitative study was conducted from March to July 2009 in six villages in three districts of West Java province. Twenty focus group discussions (FGDs) and 165 in-depth interviews were carried out involving a total of 295 respondents. The guidelines for FGDs and in-depth interviews included the topics of community experiences with antenatal and postnatal care services, reasons for not attending the services, and cultural practices during antenatal and postnatal periods. The study found that the main reason women attended antenatal and postnatal care services was to ensure the safe health of both mother and infant. Financial difficulty emerged as the major issue among women who did not fulfil the minimum requirements of four antenatal care services or two postnatal care services within the first month after delivery. This was related to the cost of health services, transportation costs, or both. In remote areas, the limited availability of health services was also a problem, especially if the village midwife frequently travelled out of the village. The distances from health facilities,

in addition to poor road conditions were major concerns, particularly for those living in remote areas. Lack of community awareness about the importance of these services was also found, as some community members perceived health services to be necessary only if obstetric complications occurred. The services of traditional birth attendants for antenatal, delivery, and postnatal care were widely used, and their roles in maternal and child care were considered vital by some community members.

Babalola and Fatusi (2009) conducted a study in south west Nigeria to identify the determinants of use of maternal health services in Nigeria. The study was based on an interviewer administered nationally representative survey. They used data from the 2005 National HIV/AIDS and Reproductive Health Survey which included 2148 women who had a baby during the five years preceding the survey. In their study they found that Education is the only individual level variable that is consistently a significant predictor of service utilization, while socio-economic level is a consistent significant predictor at the household level. At the community level, urban residence and community media saturation are consistently strong predictors. They arrived at the conclusion that the factors influencing maternal health services utilization operate at various levels individual, household, community and state. Also the determinants vary depending on the indicator of maternal health services, the relevant determinants vary. They recommended that effective interventions to promote maternal health service utilization should target the underlying individual, household, community and policy-level factors. The interventions should reflect the relative roles of the various underlying factors**.**

Iyaniwura and Yussuf (2009) carried out a study in Sagamu, South – Western, Nigeria to determine the pattern of use of maternity services and access factors that may influence the observed pattern. They carried out a survey which involved 392 women who have carried at least one pregnancy to term in Sagamu. It was descriptive cross sectional study

and this was conducted in Sagamu town between the months of September and October 2005. They used five interviewers which were community extension workers who were trained to collect the data. They used structured questionnaires to get information about the respondent's awareness of ANC and delivery facilities in their community, the facility used during their last pregnancy and the reason for their choice. Then the results of the questionnaires were analyzed using Statistical Package for Social Sciences version 10.

Their findings showed that women in the study were aware of ANC and assistance during labour although a considerable proportion of women still use nonmedical institution or do not use at all. The major factor they found that deter women from using the healthcare facility include the long waiting time and perceived attitude of staff. They recommended that Government should make effort to improve the quality of services at the health facilities, by minimizing waiting time and training health care providers to communicate better with patients. They also prescribed that there should be community education which should emphasize on the need to register early for antenatal care so that women could maximize the benefits from the services. Also Women should be encouraged to have at least education to universal level such as attending secondary school education. Woman's economic status should also be improved through empowering them and giving them employment opportunities. They also recommended that men who have knowledge on maternal health and how the use of maternal healthcare and obstetric services could be improved to reduce maternal mortality should be included in the strategies to reduce maternal deaths in the community.

Bankole, etal (2009) carried out a survey in Nigeria to identify the barriers to safe motherhood in Nigeria. Their report was based on data from the 1990 and 2003 Nigeria Demographic and Health survey and these surveys are part of worldwide project designed to collect and disseminate data on fertility, family planning, maternal and child health,

HIV/AIDS and are sponsored by mainly by the US Agency for International Development. The samples were nationally representative and large enough to permit estimates for the Nigerian six geographical zones. Most of the variables were standardize across the surveys making it possible to compare their findings. The 1990 survey interviewed 8,781 women aged from15 to 49 and the 2003 survey interviewed 7,620 women of the same age. They used the standard DHS measures to calculate the proportion of women having unmet need for effective contraceptives. The also reviewed both published and unpublished reports including the publication of Government and Non-Governmental Organizations in Nigeria. Their findings agreed with some previous studies in Nigeria that same factors that contribute to poor level of maternal healthcare access in Nigeria especially widespread poverty, rural residence and low level of female education in some part of the country are also linked to the condition that contribute to elevated levels of high risk pregnancy, cultural expectation of very early marriage and motherhood, lack of access to contraceptive services and women powerlessness to seek reproductive healthcare by themselves. Also high level of unwanted pregnancy is a direct outcome of low level of use of effective contraceptives and these results to high level of unsafe abortion and this is the reason why a number of Nigeria women die each year during pregnancy and child bearing.

Doctor and Dahiru (2009) carried out a baseline survey in three Northern states, namely Katsina, Yobe and Zamfara. They interviewed a total 6, 809 women with age range between 19 to 49 years old. The essence of the baseline data was to assess the impact of the program on health outcomes and survival rates and thereby contributing to achievement of national health related MDGs. They also administered a modified DHS type of questionnaire which included translation of key concepts and terms in the local languages so that the respondents can understand. The sample was structured to enable comparison per state of areas with interventions and those without interventions. Findings from their studies reveal

that having delivery Non skilled birth attendants (NSBAs) was associated with young adult age and state of residence. They recommended that in order to reduce maternal mortality and neonatal rates, more emphasis should be made to strengthen delivery of quality, reliable and affordable reproductive and maternal health services including basic and emergency basic obstetric care at the time of delivery. Government should make the healthcare service for maternal women free at the point of entry of delivery and treat complications free of charge. Government should strengthen the referral systems through emergency transport system aimed at evacuating women in labour to healthcare facilities. Government should make adequate publicity and campaigns about the dangers of Non skilled birth attendants through the radio, messages, and educational sessions. They should also provide formal education to maternal women to enable them understand the information given to the better.

Azuh, Nwaubani and Ugwuanyi (2014) carried out a study to determine the socio-demographic factors influencing health programme usage by pregnant mothers in Nigeria: The study took place in five (5) rural wards of Ado-Odo/Ota Local Government Area in Ogun State, Nigeria. The study was based on face-to-face structured interview and focus group discussion (FGD) with a two-level analytical approach in data analysis. Also interviews were held in depth with specific stakeholders in the community, some officials of the five primary health care units in the wards selected and staff of the only general hospital residing in the Local Government of the study area. The study adopted a stratified sampling technique in selecting the respondents who were ever married women in child bearing age (15-49) years who had at least one live-birth in the last two years preceding the survey. On the whole, 260 female respondents were randomly selected from five wards out of the sixteen wards in the local government area. The study identified several factors that have important influence on utilization of maternal health services in the study area. Some of the factors that were identified by the study include the predictor variables such as education and occupation

of mothers, distance to the health facility, and cost of antenatal care among others. He concluded that maternal mortality in developing countries continues to be a serious public health problem and contributes to the low life expectancy in Nigeria. They recommended that culturally appropriate health education especially on harmful traditional practices and benefits of safe motherhood should be employed as a short term measure. Socio-economic transformation and 'cultural revolution' should be effected for better healthcare utilization among pregnant women.

Marchie (2012) conducted a study to investigate the socio-cultural factors that contribute to Maternal Mortality in Edo South senatorial district. The population of the study was made up of 2157 female of reproductive age and she used multi stage random sampling technique. She developed a structured and validated questionnaire with a reliability of 0.82 as her instrument for data collection. Focus group discussion and in depth interview guide were employed to complement the instrument. She found that social cultural variables when taken together contributed positively to maternal mortality (i.e. economic status, educational attainment, female genital mutilation, women decision making power, early marriage/child bearing traditional obstetric care services). She concluded that in addition to medical causes of maternal mortality, there are also socio cultural factors that contribute to women dying during pregnancy, labour and pueperium. She suggested that cultural and traditional factors that have the tendencies to increase the risks of maternal deaths should be dis cussed with community leaders and a village audit instituted for every maternal death to generate useful data base. Also harmful traditional practice like female genital mutilation should be stopped because of their deleterious effect.

Ajaegbu (2013) carried out a study to determine the perceived challenges of using maternal healthcare services in Nigeria. The data he used for this study came from the 2008 Nigeria Demographic and Health Survey. The sampling frame used for the 2008 NDHS was

the 2006 Population and Housing Census of the Federal Republic of Nigeria conducted in 2006, provided by the National Population Commission (NPC). The survey collected information from a nationally representative sample of 33,385 women age 15-49, who had given birth in the five years preceding the survey. His findings from 56.4% of the respondents noted that money to access maternal healthcare service is the major barrier that hinders them from accessing maternal healthcare service even when they have health complications. He said that Nigeria is a country in which most of its citizens live below one dollar per day. Therefore as long as needs concerning feeding are not met, money to access good maternal healthcare service remains secondary need. The study identified that use of maternal health services by pregnant mothers in Nigeria is determined by their socioeconomic status in the society. Some of the barriers he found in this study that affect the use of maternal health care by Nigerian women include getting permission to go for treatment, getting money for treatment, distance to health facility, transport cost, not wanting to go alone, for fear that there may not be a female provider or any health provider, to attend to their needs and concern that drugs may not be available. He concluded that money for treatment is the major barrier that hinders women from accessing maternal health care service in Nigeria. For women living in the rural areas in Nigeria, transportation and distance to hospital are major factors affecting the use of maternal Health services in Nigeria.

Ononokpono, Odimegwu and Imasiku (2013) carried out a study in Nigeria to examined the relationship of community factors to the use of antenatal care in Nigeria, and explored whether community factors moderated the association between individual characteristics and antenatal care visits. They got data for this study from the 2008 Nigeria Demographic and Health Survey among 16,005 women aged 15-49 years who had their last delivery in the five years preceding the survey. Results from multilevel models indicated

that living in communities with a high proportion of women who delivered in a health facility was associated with four or more antenatal care visits. Residence in high poverty communities decreased the likelihood of antenatal care attendance. Living in communities with a high proportion of educated women was not significantly related to antenatal care visits. Community factors acted as moderators of the association between educational attainment and antenatal care attendance. They recommended that improvement in antenatal care utilization may therefore be enhanced by targeting poverty reduction programs and increasing health facility delivery in disadvantaged communities.

Uthman, etal (2013) carried out a study in Maiduguri the Northern Nigeria to identify some demographic factors that affects postpartum hemorrhages prevention in Maiduguri, Nigeria. The study was a prospective, comparative and muticentered study which started in September, 2007 and was completed in March, 2009. The study took place in three Health institutions in the Metropolitan area of Maiduguri. These were; the University of Maiduguri Teaching Hospital (UMTH), the Maiduguri Specialist Hospital, and Yerwa Maternal and Child Health Care Centre. Women that had uncomplicated vaginal delivery and were administered with a prophylactic dose of either oxytocin injection (10 IU) or oral misoprostol (3 × 200 μg) as permitted by the ethics of practice in the various Centre were enrolled for the study. The exclusion criteria used in this study included known allergy to either of the drugs. The study was completed with a total sample size of 1865 orally consenting (some written) enrollees. About, 46 of the administered questionnaire were invalidated leaving a total of 1819 valid questionnaires (912 for oxy- toxin and 907 for misoprostol). The findings from the study show that tribal affiliations, educational back ground, and employment play a role in PPH, although the contribution of tribal affiliation was significantly higher than that of education and employment,

Akanbiemu etal (2013) carried out a descriptive cross sectional community based studies among women of reproductive age between 15 to 49 years old in some selected rural and semi urban communities of in Okitipupa local government area, Ondo State using a pre-tested structured interviewer administered questionnaire to collect relevant data from respondents. They used multistage sampling procedure to select eligible respondent. They use descriptive statistics such as percentages and proportion to describe the quantitative and categorical variables, Chi square test for bivariate analysis and multivariate analysis using multiple logistic regression model and p- value less than0.05 were considered to be statistically significant. Findings from the study showed that free health care services for pregnant women in Ondo State were the main determinant of utilization of Public antenatal care ANC in Okitipupa LGA while previous safe delivery of a healthy baby was the main reason for utilization of any ANC facility whether public or private. The women also accepted that they had good knowledge of ANC and its purposes and services. They recommended that the Ondo state Government should sub stain the free health service program for pregnant women. They should also employ and motivate more midwives, doctors and nurses to ensure effective delivery of ANC.

Ugbor, etal (2017) examined the socioeconomic factors that determine women utilization of healthcare services in Nigeria. The indices such as economic status, education, birth level, and birth interval are key predictors of health services utilization. Given the inequalities in healthcare utilization in developing nations, the study looks at what determines pregnant women utilization of such services in Nigeria. Adopting Poisson Regression Model on Demographic Health Survey (DHS) data, the study observes that the wealth of pregnant women positively influences their health care utilizations while an increase in the household size has a negative effect on the capability to access health care. In line with the findings, the study suggests need for positive policies and implementation

strategies that will increase the opportunity for women to have proper health education which would have an impact on utilization of antenatal visits among pregnant women in Nigeria. Furthermore, both the positive and negative factors that have been found to be associated with non-utilization with antenatal and postnatal care include:

2.4.1 Age as determinant of Use and Non-Use of Antenatal/Postnatal Health Service

A higher level of maternal and neonatal mortality rates have been observed among mothers who deliver at high and low extremes of maternal age (Oluwaseyi, 2014). This implies that women who are very young or very old may have higher levels of maternal mortality rates. This may be as a consequence of their non-use of postnatal care services. This is particularly true of women under 20 years and those over 40, as they are more prone to complications during pregnancy and childbirth that affects both them and their babies. Although, the age of a mother plays an important role in her utilization of antenatal and postnatal care services, the direction of relationship is different to what may be expected (Oluwaseyi, 2014). It was found, that younger women have more knowledge about modern healthcare services than older women (Stephenson & Tsui in Oluwaseyi, 2014). However, many others studies have found the opposite effect of knowledge, as older women know more and are more likely to use ANC/PNC services than younger mothers and add that other factors such as decision making power at the house hold level could play a role in holding the younger women back (Oluwaseyi, 2014). In this area of study, young women seen to utilize ANC and PNC more than old women which is largely associated with their educational exposure.

2.4.2 Accessibility as determinant of Use and Non-Use of Antenatal/Postnatal Health Service

The distance to health facility is either a push or pull factor that also plays an important role in utilization of antenatal and postnatal care services. It makes sense that healthcare personnel and facilities must be easily accessible to where patients, in this case, mothers live and work.

This enables mothers to have the means and knowledge of getting to those services which encourages the utilization of these vital medical services. The ease of access to antenatal and postnatal care services may be facilitated or hindered by the location and physical distance of the service from the client. In other words, the effectiveness of the ANC/PNC service, through its utilization may be hindered by the lack of access or the other way round (Oluwaseyi, 2014). Distance may impede or enhance utilisation of a healthcare service. A number of studies in developing countries have documented strong evidence that the physical proximity of health care service can play an important role in the utilization of health services (Feikin et al., 2009). In contrast, in a developing country like Nepal, a study found that access which was measured by: visiting health care worker, when mothers listened to the radio broadcasts and were exposed to information via the mass media found that there is a positive association between accessibility and antenatal and postnatal care utilization (Sharma, Sawangdee & Sirirassamee in Oluwaseyi, 2014). The cost of services which could be transport or drugs can reduce women's use of postnatal care services. From economics, price is negatively related to demand.

2.4.3 Birth Order as determinant of Use and Non-Use of Antenatal/Postnatal Health Service

Birth order is an important predictor in explaining the use and non-use of antenatal and postnatal care services. Due to the uncertainty and the perception of risk associated with first pregnancies, women are more likely to seek medical attention for first-order births than for subsequent ones. For instance, in Malawi, adolescent women with a high order of birth (birth order 2/3) had lower probability in utilizing antenatal or postnatal services compared to adolescent women with a first birth order (Singh et al., 2013). This finding correlates with the observation made by studies conducted in Nigeria (Rai, Singh, & Singh, 2012) and Turkey (Celik & Hotchkiss, 2000). This study showed that women are significantly more likely to use maternal healthcare services for their first child. Another reason could be because women

are more cautious toward health risks with their first pregnancy are more cautious toward health risks (Raj et al., 2013). However, with each preceding pregnancy, women may tend to believe that modern health care is not necessary and rely more on past experiences provided that they have not had any bad experiences (Mekonnen & Mekonnen in Oluwaseyi, 2014). There is evidence that a higher birth order suggests a greater family size and hence fewer resources are available to access ANC and PNC services.

2.4.4 Birth Size as determinant of Use and Non-Use of Antenatal/Postnatal Health Service

The NDHS 2008 reports that the neonatal mortality rate (NMR) for babies categorised by mothers as 'small' or 'very small' was more than twice that for babies classified as 'average' or 'larger than average' (Oluwaseyi, 2014). In Indonesia, Titaley (2009) found that the odds of not using antenatal and postnatal care were significantly higher for smaller than average-sized infants compared to larger than average sized infants. He hypothesized that mothers may delay visits to antenatal or postnatal care services due to the perceived vulnerability of their small baby to cope with/handle the journey.

2.4.5 Pregnancy-wantedness as determinant of Use/Non-Use of ANC/PNC Health Service

Unwanted fertility increases the probability of under-utilization of maternity healthcare (Gage in Oluwaseyi, 2014). In a cross-sectional study in Namibia and Kenya, It was concluded that unwanted pregnancy and poor timing of pregnancy was associated with low utilization of ANC (Gage in Oluwaseyi, 2014). A study using data from California Maternal and Infant Health Assessment sought to understand the link between pregnancy-wantedness and antenatal/postnatal care seeking behaviours. They concluded that women who were happy with their pregnancy were significantly more likely to seek antenatal/postnatal care-taking services (Libet in Oluwaseyi, 2014). There are results from Indonesia that showed that the opposite can happen. In Indonesia, mothers that intended to become pregnant were actually

more likely not to utilize antenatal/postnatal care services (Titaley, 2009). The reason for this in Indonesia could be as a result of maternal education or household wealth index.

2.4.6 Education as determinant of Use and Non-Use of ANC/PNC Health Service

Research in developing countries has consistently shown that there is strong relationship between education and the utilization of antenatal/postnatal care. It has been consistently established by several studies that education affects utilization of antenatal and postnatal care services, concluding that better educated mothers are more likely to utilize postnatal care services (Rahman et al., 2011; Neupane & Doku, 2013). Other studies in Nigeria have also documented the positive impact of high maternal educational attainment on utilization of antenatal/postnatal care services in Nigeria (Ononokpono, 2012; Ugboaja et al., 2013). However, there is also evidence indicating that education alone may not be sufficient to improve health-care-seeking behaviour of women. For instance, Kyomuhendo in Oluwaseyi (2014) found that despite a favourable and enabling policy environment, universal primary education and decentralization of health services, there has not been an increase in utilization of health care services by women in Uganda. He explained that this may be because women's care-seeking behaviour was not the result of individual preferences, educational attainment or choice but conditioned by other factors such as community poverty, norms and tradition.

2.4.7 Marital Status as determinant of Use and Non-Use of ANC/PNC Health Service

The marital status of a mother highlights the difficulty she may face as she might have to rely on her husband to secure access to medical treatment, financially and practically (Rahman in Oluwaseyi, 2014). For instance, she may require her husband's support or permission if she has to travel a long distance for medical consultation. A study focusing on rural Ethiopia found that married women were more likely to use antenatal care than their unmarried counterparts but found no difference in the use of antenatal and postnatal care services among the two groups (Mekonnen & Mekonnen in Oluwaseyi, 2014).

2.4.8 Occupation as determinant of Use and Non-Use of ANC/PNC Service

It has been found that employment increases awareness and provides new ideas, behaviour and opportunities through interaction with other people outside the home and community (Rai, Singh, Kumar & Singh, 2013; Riley in Oluwaseyi, 2014). It is assumed that women who are employed will have enough finance to pay for antenatal and postnatal services which may translate into high decision making power in the home but some researchers have argued that the type of employment a woman is involved in determines her use of these services (Miles-Doan, Brewster in Ochako, Fotso, Ikamari & Khasakhala, 2011). This has led to mixed results from studies which have aimed to determine the effect of work status on the utilization antenatal and postnatal care services.

Some studies have found that formally women are more likely to utilize ante and postnatal care services (Nwogu, 2009), due to their capacity to be more empowered. Other studies have shown that women employed in the agricultural sector are less likely to utilize ante and postnatal care services (Obermeyer & Potter; Addai in Ntambue, Malonga, Dramaix-Wilmet, Donnen 2012). A reason for this could be because majority of mothers who are into agricultural services reside in the rural areas and may only seek modern ante and postnatal care services after they have exhausted resources and expertise in their communities (Neupane & Doku, 2013). Furuta & Salway in Mrisho, Obrist, Schellenberg, Haws, Mushi, Mshinda, Tanner and Schellenberg (2009) report that women's employment does not translate directly into greater use of maternal healthcare in Nepal. It was found that Nepalese women who work but have no control over the use of their earnings were least likely to receive maternal healthcare. This may be because most of the women who work are from poor households and work for family survival. Hence, working women were no more likely to receive maternal healthcare than women who did not work, even after controlling for socioeconomic status and place of residence. Even though the answer is not clear, working

women perhaps experience time constraint that reduces their opportunities for receiving health care.

2.4.9 Place of Delivery as determinant of Use and Non-Use of ANC/PNC Health Service

The place where mothers give birth usually indicates whether or not the birth was attended to by skilled birth attendants. More than one half of Nigerian babies die at home. According to the 2008 NDHS, at least 62% of births occur at home, while only 35% take place in a health care facility and there had been no significant increase in facility births over the five years preceding the survey. Health care facility delivery and assistance of delivery by healthcare workers are two of the factors that have been found to be associated with the increased utilization of postnatal care services (Anwar et al., 2008; Mrisho et al., 2009). For instance, a nationally representative study in Nepal found that place of delivery was independently associated with postnatal checkup within 2 months of delivery (Neupane and Doku, 2013). Another study in Nepal which was community-based also discovered that mothers who had delivery assisted by healthcare workers and had their delivery at a health care facility were more likely to utilize early ANC/PNC services than their counterparts who did not (Paudel et al., 2013).

2.4.10 Place of Residence as determinant of Use and Non-Use of ANC/PNC Health Service

Women residing in rural areas are less likely to utilize antenatal and postnatal care services than their urban counterparts. This statement is consistent with findings in Ethiopia by Mekonnen & Mekonnen in Muchabaiwa, Mazambani, Chigusiwa, Bindu and Mudavanhu (2012). Other researchers have explained that urban women have many advantages over their rural counterparts which may influence their antenatal and postnatal care use. These advantages include; higher levels of knowledge, access to services and health care promotion programs that use urban-focused mass media (Ezeonwu, 2011; Singh, Rai, & Singh, 2011).

2.4.11 Religion, Cultural Beliefs and Social Support as determinant of Use/Non-Use of Antenatal/Postnatal Health Service

Commonly held beliefs and norms in form of religious practices shape the way women perceive their own health and their response to the health services available. Religion has an important role in the utilization of antenatal and postnatal care services. Religion helps in shaping beliefs, norms and values (Koblinsky, Anwar, Mridha, Chowdhury & Botlero, 2008). These values or beliefs that women hold may prevent women from utilizing antenatal and postnatal care services. Religious belief has been found to be a push factor or source of exclusion from maternal health care utilization in India and Africa (Ochako et al., 2011; Rahman et al., 2011).

Using logistic regression to adjust for confounding factors, a cross-sectional study conducted in a Peri-urban town in Zimbabwe revealed that religion (apostolic faith) was associated with non-utilization of antenatal and postnatal care services, because the women believed in faith healing and prefer traditional midwives. It has also been found that non-Catholic women were less likely to use maternal healthcare in Ghana, whilst Catholic women were less likely to utilize maternal healthcare in Kenya when compared to Protestants (Stephenson et al in Ugboaja, Nwosu, Igwegbe & Nwosu, 2013). This shows that religious affiliation is strong as it is usually a community head belief (Muchabaiwa et al., 2012). Religious beliefs in certain societies may pose barriers to the utilization of ANC and PNC services because some religious communities might believe in prayer and prefer home deliveries with no ANC and PNC from skilled health personnel (Chaibva, 2009).

Some cultural beliefs have also been found to influence utilization of ANC and PNC. The study conducted by (Simkhada, Porter & van Teijlingen, 2008) in Nepal found that mother in laws negatively influenced utilization of ANC and PNC by their daughter in-laws. Lee, Yin and Yu (2009) in a study conducted in Taiwan also found that mother in laws and spouse, heavily influence decision about where and whether to go for antenatal and postnatal

care. Engaging men as partners is a critical component of ANC and PNC, but their involvement has been low (Byamugisha et al., 2011) and there's hence a need to encourage male participation to promote the uptake of ANC and PNC by pregnant and nursing mothers. A study conducted in Malawi by Chiwaula (Chiwaula, 2011) also demonstrated that cultural beliefs negatively influence utilization on ANC and PNC.

Social support has been reported to affect attitudes and behaviours, including satisfaction with pregnancy and parenting. Pregnant adolescents who have high stress and low social support networks have been found to have more neonatal and obstetric problems than those who have low stress and high social support networks. Attending antenatal and postnatal clinics early will assist in the identification of such stress and/or depression, resulting in appropriate management of the identified problems (Makii, 2015). It is important that antenatal and postnatal services are planned with input from pregnant women and that the services are made as meaningful and as interesting as possible otherwise the pregnant women will not view the services as valuable to them.

2.4.12 Wealth Status as determinant of Use and Non-Use of ANC/PNC Health Service

In Nigeria, the lack of finance emerged as the major issue among women who did not fulfil the minimum requirements of four antenatal care services or two postnatal care services within the first month after delivery. This was related to the cost of health services, transportation costs, or both (Jahangir, Irazola. Rubinstein, 2012 & Oluwaseyi, 2014). Also, the limited availability of health services in remote areas was a problem, especially if the village midwife frequently travelled out of the village. In addition to the long distances away from health facilities, the poor condition of the roads was a major concern for pregnant mothers or mothers who had just given birth, particularly for those living in remote areas. Economic status has been consistently shown to have a positive association with utilization of health care service, antenatal and postnatal care is no exception (Oluwaseyi, 2014). This is as

a result of the high cost of getting to care in sub-Saharan Africa which may include transportation and medications. Women who are poor may not be able to afford these costs and this may discourage them from the use of these services. Thus the non-utilization of antenatal and postnatal care services among poor households could be due to the low priority assigned to health seeking when compared to other basic daily needs or to the lack of resources for health care expenses, whereas households with funds available could spend a proportion of their earnings on health care (Muldoon et al., 2011). Poor young women are often found to be uneducated, unemployed, and detached/excluded from social networks; thus they are less easily reached by programs that rely on mass media for the diffusion of information regarding the utilization of existing health services (Singh, Rai, & Singh, 2012).

2.4.13 Obstetric related factors as determinant of Use and Non-Use of ANC/PNC Health Service

Adolescents who are pregnant for the first time face higher risks of obstetric complications than women aged 20 or older (Makii, 2015). Parity refers to the number of pregnancies a woman has had that have each resulted in the birth of an infant capable of survival (Ezegwui, Onoh, Ikeako, Onyebuchi, Umeora, Ezeonu, & Ibekwe, 2013). Gravida indicates the number of times the woman has been pregnant, regardless of whether these pregnancies were carried to term (Collins in Emelumadu, Ukegbu, Ezeama, Kanu, Ifeadike, & Onyeonoro, 2014). Study done in England and Wales (Kupek, Petrou, Vause, & Maresh in Chiavarini, Lanari, Minelli, & Salmasi, 2014) Primiparous women of high obstetric risk were 13.4% more likely to initiate antenatal care after 10 weeks of gestation than a low risk reference group, and 34.3% more likely to initiate antenatal care after 18 weeks of gestation. This association between high obstetric risk status and late initiation of antenatal and postnatal care were not replicated among multiparous women.

2.4.14 Health Facility Related Factors as determinant of Use/Non-Use of ANC/PNC Health Service

To ensure women accesses quality care adequate number of trained health workers, sufficient equipment and supplies; and adequate referral or reliable transportation to a hospital or other health facilities in the event of an emergency (Banchani & Tenkorang, 2014). Studies clearly indicate that countries with high maternal, perinatal and neonatal mortality have inadequate and poor quality health service, which can be associated with reduced utilization of health service. Reference on these studies show that the use of evidence-based guidelines leads to better process and outcomes of health, when appropriately implemented (Makii, 2015).

Emphasis is therefore placed on the use of standards of care as a way of addressing barriers to quality care (World Health Organization, 2014). Data was collected from 15 health facilities in Eastern Uganda to establish capacity of delivering ANC services concluded; to improve the quality of ANC; interventions need to improve staffing, infection control facilities and drug-supplies. In addition, is better counselling for risk factor-recognition and birth preparedness (Tetui et al., 2012).

Improving quality of care for client means understanding their cultural values, previous experiences, perceptions and the role of the health system (Saha, Beach, & Cooper, 2008). Patient-centred care is not limited to communication and often focuses on other aspects of care such as convenience of office hours, ability to get appointments when needed, being seen on time for appointments and having services near one's place of residence (Shah & Say, 2007).

Generally, we found that the determinants of antenatal and postnatal care non-utilization are not uniform across regions and countries. Despite the several studies that have contributed to the utilization of antenatal and postnatal care services, there are no any studies that have focused on the factors affecting the utilization of antenatal and postnatal from

women perspective to the best of my knowledge in Makarfi Local Government, Kaduna state. The implication of this is that the women who need to be targeted with interventions have been missed and this would delay the achievement of the SDG Goals. Also, the few studies (Babalola & Fatusi, 2009; Rai et al., 2012; Ugboaja, 2013) that exist on antenatal and postnatal care in Nigeria have focused on other geographical locations which limits their validity as it cannot be applied to the current area of study. It is this gap that this study will focus on addressing by using the data collected from the study area to inform healthcare policy and interventions.

2.5. Theoretical Framework

This study is an investigation into the utilization of antenatal and postnatal care services provided in General Hospital and PHC facilities in Makarfi Local Government Area of Kaduna state. While the introduction of General Hospital and PHC were mainly aimed at improving and ensuring access to modern health services especially to the rural poor, some scholars see its introduction as a means of creating a rural-urban divide or rich-poor divide in the provision of health care services to the people and this has affected the level of utilization of the facilities. This scenario can be explained within the context of Marxist political economy perspectives.

2.5.1 Political Economy of Antenatal and Postnatal Health Services in Nigeria

It was developed as a critical response to functionalism in the context of larger changes in social thought occurring in the 1970s (Aina, 1986; Anselin, 1988). It is seen both as an approach as well as a realistic methodology with a holistic perspective to the analysis of social development (Aina, 1986; Alubo, 1995; Onimode, 1995). Under this approach, good health is defined in political terms not only as a state of physical or emotional wellbeing but as access to and control over the basic material and non-material resources that sustain and promote life at a high level of satisfaction. With the assumption of unequal distribution of

resources, wealth and power, the political economy theoretical framework provides a valuable context in which to consider the socioeconomic and political determinants of health. It is particularly useful when considering the health status of the historically marginalized groups which includes the ageing, the physically disabled, the women, the rural and the unemployed partly because of restricted access to health care services. There are two basic variants within the political economy school of thought i.e. the liberal and the radical comprising the classical and the Marxist approaches (Godswill, 2008).

While the liberal school of thought stresses the role of market forces in the distribution and allocation of resources including those of health care, the radical school upholds production and production relations. The Marxist political economy perspectives emphasize the importance of material conditions in understanding and explaining social existence and in finding solutions to individual and group problems of man. The theory explains how people derive their livelihood (their mode of production) and maintain that in virtually all societies with the exception of the communal mode, classes have been developed. This class difference produces unequal access to means of livelihood including health care services.

In addition, the inequality created by the class difference also produces exploitation between the rich and the poor, the ruling class and the ruled. The top class did not only control the resources but also control the state machineries of power to facilitate or help the rich to maximize their profits and put them under perpetual control. The Marxist political economy asserts the strong link between capitalism and health such that health status and the organization of health care are the results of a capitalist economy and class relations. It analyzes imperialistic power relations and the exploitation of labourers, emphasizing the socioeconomic politics of medicine and the unequal distributions of the commodity to the people. Health care is distributed according to its ability to improve the productivity of labour

and consequently, those considered to have low economic worth would have unequal access to health care services and programmes (Besley & Burgess, 2002).

Application of the theory to the problem

The main user of General hospital and Primary Health Care are the poor people mostly living in the rural areas. The introduction of General hospital and Primary Health Care could be viewed as a way of upholding inequality and social stratification created by the capitalist economic system among the people because the ruling class and the rich hardly use the General hospital and Primary Health Care facilities especially in the developing countries partly because most of the public health care facilities lack adequate skilled personnel and equipment to provide quality health care. The powerful few often avail themselves quality health care services provided by highly skilled and specialist health care personnel in health care facilities mostly based in urban areas that usually charge heavily for their services. These services could not be afforded by the poor, lower class and marginalized people because of scarce resources and competing demands. They are therefore forced to receive health care services from the poorly staffed and ill-equipped General hospital and Primary Health Care facilities in many parts of the developing countries like Nigeria.

It is also argued that the ruling class needs strong labour force to provide the necessary labour and raw materials for their economic growth and that of the country. Thus, there is the need to provide the poor with a form of health care service that will treat some minor ailments in the society. The introduction of General hospital and Primary Health Care are therefore seen as a way of ensuring that the lower class/proletariats can be very healthy and serve as strong labour force for the rich who in turn will continue to grow richer and stronger for their continuing dominance and control of power in the society.

Most of the equipment, drugs and other health care materials utilized by General hospital and Primary Health Care facilities are manufactured by multinational companies assisted by their national collaborators who are in control of the state machineries in the country. Thus, the establishment and expansion of General hospital and Primary Health Care facilities is an attempt to expand the markets for their goods and services which in turn perpetuate the exploitation of the poor downtrodden people in the society. It is instructive to state here that most of the diseases and health care programmes of General hospital and Primary Health Care are health issues affecting the poor, marginalized and lower class people who may not afford quality health care services provided by health care facilities located in urban areas that are adequately equipped and staffed to serve the rich and highly placed individuals and members of their family.

The exploitation of the poor by the powerful few in the society is further promoted by the introduction of General hospital and Primary Health Care through the embezzlement of the funds budgeted for Health care programmes and the money received from foreign donors. This partly is responsible for the poor infrastructures, lack of drugs and equipment in General hospital and Primary Health Care facilities. Public health facilities are therefore seen as a means by which the most powerful in the society try to deceive the least powerful into accepting inequality and to make them believe that the powerful in the society are genuinely interested in their welfare and survival by providing them with basic health care facilities that are of less quality as the ones provided for the powerful in the society. Thus, claiming legitimacy and support from the people who in turn give their loyalty to the ruling class with the belief that they are concerned about their welfare

The theory helped to provide an understanding of the broader context, particularly political and economic factors in the context and how these affects the utilization of antenatal

and postnatal services by pregnant women in both urban and rural areas. An understanding of contextual issues around the use and non-use of antenatal and postnatal services by pregnant women would contribute to better policies formulations that would lead to improvement of maternal health delivery service in Makarfi Local Government Area. Finally, political economy could form the basis for challenging underlying power structures and as well as produce a feasible strategy for enhancing antenatal and postnatal services in the study area.

2.5.2 Andersen Behavioural Model of Health Services Utilization

Andersen (1995) behavioural model of health services use was initially developed in the late 1960s by Andersen and was used to understand why families use health services; to define and measure equal access to health care and provide assistance in developing policies to promote equal access. Originally, the model focused on the family as the unit of analysis, but in subsequent work, the author emphasised the individual as the unit of analysis. The behavioural model of 1995 emphasized the multiple influences on health care service use and on health status. The key elements that can influence health care behaviour and health outcomes of ante and post-natal service utilization described in the model include environmental and population characteristics. Environmental factors include the health care system and the external environment, whereas population characteristics include predisposing, enabling resources and need (Ononokpono, 2015). The main tenet of the behavioural model of health service use is the assumption that women of child bearing age use of health care services is a function of predisposing factors (demographic and social structure), enabling factors (resources) which enable or impede use and their need for health care (perceived and actual) (Andersen, 1995).

2.5.2.1 Predisposing Characteristics

Following the principles of this model, predisposing demographic factors such as age, sex and marital status could influence the likelihood of ante and post-natal service utilization.

Social structure is measured by a wide range of factors that could determine social status and standing in the community, women of child bearing age ability to cope with and command the resources to deal with health problems, and how healthy or unhealthy the physical environment is likely to be. These characteristics could reflect educational attainment, occupation and autonomy. Health beliefs are attitudes, values and knowledge that women have about health and health care services, which could in turn influence their perceptions of need and use of health services (Andersen, 1995).

2.5.2.2 Enabling Resources

The enabling resources in the model represent those resources that provide women with the means to use health care services. These resources must be available for use at any time they are needed, and can be found at the family and community levels. Family resources include family income (household wealth), health insurance coverage and a regular source of care (Andersen, 1995). These can also include the sex of the family head and family size which are important measures of family resources and welfare. Family resources determine the amount of funds available to the women of child bearing age to cover health care and related costs.

On the other hand, the community resources include the number of health facilities and medical personnel available for the use by the women. For example, the availability of a large number of health facilities and personnel could reduce waiting time and increase the frequency of utilization of health care by women of child bearing age. Distance to health facility, money and transport can also enable youths to seek care or deter them from seeking health care. Resources at the community level can also include the nature of the community in which youths reside (for instance, region of residence, place of residence (urban or rural) and ethnic concentration in the community). These could reflect local values and norms

which consequently influence women's' behaviour and decisions to ante and post-natal service utilization (Ononokpono, 2015).

2.5.2.3 Needs Characteristics

Need based characteristics outlined in the model refer to health status or illness and its severity perceived by the women or evaluated by the health providers (Andersen, 1995). The use of health care is determined by how women view their general health condition, how they experience the symptoms of illness as well as their perception of the severity of the illness. Though the predisposing and enabling factors are necessary for the utilization of health services, arguably they are not enough for actual use. Hence women of child bearing age use of health care services according to the model are mostly triggered by their experiences and need during illness.

Justification for application of the Model in the study

The model explains some of major variables such attitude, cultural beliefs, distance, cost of care, health insurance among others which are presume by the researcher to be factor influence the ante and post-natal service utilization in Makarfi Local Government Area of Kaduna state. It provides theoretical basis for retaining or rejecting the research hypothesis at the end of the study. The model considers healthcare utilisation from both the micro (individual) and the macro level (community) level. Predisposing factors clearly explains one of the variables under study thus sex and the model has also been able to explain the factors that influence ante and post-natal service utilization. It includes material, environmental and structural factors, which were barely taken into account in the Health Belief Model (Seidu, 2015). Due to the explained reasons the model will be adopted as one of the main model to guide the study.

However, the Anderson model has focused mainly on the individual as the unit of analysis. Despite the recognition of individual and household factors, there is scant attention to broader

environmental factors that may influence women behaviour related to the use of health services. Hence the model has been criticised for paying less attention to social networks and the important interactions that exist between them and culture (Andersen, 1995). The model has also been criticized for not paying enough attention to culture and social interaction but Andersen argues this social structure is included in the predisposing characteristics component. Another criticism was the overemphasis of need and at the expense of health beliefs and social structure. However, Andersen argues need itself is a social construct. This is why need is split into perceived and evaluated. Another limitation of the model is its' emphasis on health care utilization or adopting health outcomes as a dichotomous factor, present or not present. Other help-seeking models also consider the type of help source, including informal sources. More recent work has taken health seeking behaviours further, and more real-world, by including online and other non-face-to-face sources.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The chapter focuses on the design of appropriate methodology adopted for the collection of data that facilitated the successful completion of this project. Therefore, the chapter is organized under the following sub-themes; description of the location of study, types and sources of data, population of the study, methods of data collection, sampling technique and sample size, methods of data Analysis and problems encountered in the field.

3.2 Location of the Study

This study was conducted in Makarfi Local Government Area. The Local Government was created from the defunct Ikara Local Government in 1991 by the regime of General Ibrahim Babangida. The Local Government is composed of seven districts namely; Makarfi; Nasarawan Doya; Ruma; Gimi; Gazara; Meyere and Gubuchi with comprehensive Primary Health Care Center (PHC) in each district. Farming and cattle rearing and trading are the major occupation of the inhabitants of the Local Government. The local government has an estimated population of 209, 112 thousand (National Bureau of Statistics, 2012). The Preponderant religion in Makarfi LGA is Islam and some are Christians.

3.3 Types and Sources of Data

The primary data are information collected for the first time from the respondents for a particular study. The primary data were obtained from staff of Makarfi L.G.A. health care facilities, mothers within reproductive age of 15-49 years, community leaders, traditional birth attendants through survey questionnaire, and in-depth interview. Primary data will be used because the researcher believes it is capable of providing first hand information that addressed the issue under investigation, since the information was collected directly from the field.

3.4 Population of the Study

The population of this study was women of childbearing age (15-49 years; the WHO recommended childbearing age) and health care personnel that are providing maternal health services in all PHC facilities in Makarfi Local Government Area, Kaduna State. These health care personnel include medical doctors, nurses, traditional birth attendants, community leaders, midwives, community health workers and medical auxiliaries working in general hospital and primary health care facilities in the local government. The choice of these categories was influenced by the fact that mothers within this reproductive age are most have had one or more pregnancies and deliveries that could warrant them to go for antenatal or postnatal services in the hospitals. While the health personnel are believed to be stakeholders in the rendering the antenatal and postnatal services, who by virtue of their experiences will have in depth knowledge on issues bordering the utilization or the underutilization of the antenatal and post natal services and as such, will be able to provide useful information that will help in addressing the issue under investigation.

3.5 Methods of data collection

To collect reliable data required in addressing the research objectives, both quantitative and qualitative techniques of data collection was employed in this study. The choice of the two methods was to complement the weaknesses of each other, since the information that could be not gotten from quantitative method was collected through detailed information from the qualitative method.

3.5.1 Quantitative Technique (survey method)

The quantitative technique of data collection involves the collection of mass data from the large number of respondents using questionnaire as the instrument of data collection. The questionnaire contained both open and close-ended questions which covered relevant variables such as respondent's socio-demographic data, level of educational attainment of

mothers in the area, level of antenatal and postnatal utilization, level of mothers' economic status, religious factors affecting antenatal and postnatal utilization in Makarfi L.G.A. . For those respondents who do not understand English, the questionnaire was translated into their native language (Hausa) and was guided by the researcher or the research assistant who was recruited and trained by the researcher to assist the respondents on how to answer the questions. The questionnaire was administered by the researcher. The researcher visited the respondents at their homes. Those who are literate filled the questionnaire by themselves while the researcher filled the responses of respondents who are not literate.

3.5.2 Qualitative Technique

The qualitative technique of data collection is concerned with the collection of data from relatively few respondents who are knowledgeable on the issue under investigation. The technique of data collection was In-depth Interview (IDI). The IDI guide contain set of questions that was developed and adopted for the health personnel such as Medical doctors, Nurses, and the Traditional Birth Attendants who work in the various PHCs located in the study area. This will enable the researcher to get in-depth information on the problem investigated. Here, three (3) medical practitioners (physicians) involving Paramedical health personnel, three (3) mothers, two (2) traditional birth attendants, two (2) community leaders were selected. This was done purposely, the reason was to meet the key informants especially for the medical practitioners and traditional birth attendants who are experience and knowledgeable about antenatal and postnatal services in general and in particular problems that are unique to Makarfi L.G.A.

3.6 Sampling procedure and Sample size

The population of this study consist of women within reproductive ages 15-49 years who were either currently pregnant or had a baby during or before. The sampling technique that was employed for this study is multi- stage cluster sampling technique. This is adopted

because the area of study is quite large. As such, it was difficult for the researcher to compile an exhaustive list of the population.

Stage 1: Makarfi Local Government Area comprises 10 political wards namely; Tudun wadan Makarfi, Makarfi Gari, Mayere, Gubuchi, Gwanki, Nasarawan Doya, Gazara, Danguziri, Dandamisa and Gimi ward. In order to have a good coverage of the respondents, Makarfi LGA was clustered into two: the wards within Makarfi Town will represent cluster A, while the wards outside Makarfi town will represent cluster B. The wards within Makarfi town are: Makarfi Gari, Tudun wadan Makarfi, Danguziri, and Gazara wards. While the wards outside Makarfi town are: far away from Makarfi comprises of Mayere, Nasarawan Doya, Gwanki, Gubuchi, Dandamisa and Gimi wards. These wards were clustered together because they share some socio demographic characteristics in common such as hospital facilities, electricity, road network, educational facilities as well as, occupation. This to a large extent can determine their utilization or underutilization of health facilities.

Stage 2: In cluster A which comprises of wards within Makarfi town, two (2) political wards namely; Makarfi and Tudun wadan Makarfi were purposively selected. The use of purposive sampling here is influenced by the fact that the researcher considered the presence of a hospital in each of the ward for the purpose of comparism. While in cluster B which comprises of wards outside Makarfi, three (3) political wards: Mayere, Gimi and Gwanki wards were chosen purposively. These wards were purposively chosen because they lack well equipped hospitals facilities compared to wards within Makarfi town. This is to enable the researcher to compare whether the presence or lack of standard health facilities determine its utilization. This will give a total of five (5) political wards to be used for the study.

Stage 3: In cluster A where two wards were selected, thirty (30) households was purposively selected; giving a total of sixty (60) households. While ninety (90) households was

purposively selected from the three political wards in cluster B; thirty households from each ward. The use of purposive sampling in selecting the households at this stage is influenced by the fact that the researcher intends to use only the houses with mothers within the reproductive age of 15-49.

Stage 4: At this stage 50 respondents were purposively selected from the 30 households from each of the five political wards; at least one from every household. This gave a sample size of two hundred and fifty (250) respondents used for the entire study. This sample size is adopted since time and financial constraints limit the researcher's ability to cover the whole of Makarfi Local Government Area.

Since the study is also concerned with health personnel who by virtue of their experience deal with mothers of reproductive age who attend the antenatal and postnatal service in the hospitals, in depth Interview was conducted with five key informants; one Physician, a Nurse, a community Health worker and Traditional Birth Attendant. This will enable the researcher elicit detailed information that will complement information collected through questionnaire.

$$n = \frac{\mathrm{N}}{1 + N\,(e)^2}$$

n = Sample size

N = Population

1 = Constant

e = Tolerance level

Population = 880

Tolerance level = 0.05

$$n = \frac{880}{1 + 880\,(0.05)^2}$$

$$n = \frac{880}{1 + 880\,(0.0025)}$$

$$n = \frac{880}{1 + 2.2}$$

$$n = \frac{880}{3.2}$$

$$n = 275$$

3.7 Methods of Data Analysis

Data from the questionnaire was analyzed using descriptive statistics, with Statistical Package for Social Sciences (SPSS) version 22.0 serving as the statistical tool to be used in presenting the findings in tables, frequencies and percentages. While the qualitative data collected through the In-depth Interviews was transcribed and analyzed in narrative form using prose style.

3.8 Ethical Consideration

Ethical Considerations Permission to conduct the research was granted by the Department of Sociology, Faculty of Social Sciences, Ahmadu Bello University, Zaria through a letter releasing the researcher to proceed for data collection. Similarly, permission was obtained for data collection in Local government through the Medical Director of General Hospital Makarfi. The Officers in-Charge of the selected PHC facilities was informed by the Directors about the Agency's consent for the research. In the research communities, consent was obtained from the District Head of the selected districts who in turn attached their representatives to introduce the researcher to the village heads where the research was conducted. In all the selected households, informed consent was obtained from the household heads. The household heads in-turn consented to their wives" participation in the researcher and agreed to participate in the in depth interview. Consent will be obtained from the women and the maternal health services providers who voluntarily participated in the research.

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

4.1 Introduction

This chapter presents the analysis of the data collected from the field. Out of the 275 copies of questionnaire distributed, 250 were successfully retrieved, giving a response rate of 91%. Also ten in-depth interviews were conducted. The results are divided into five sections, based on the objectives of the study these are: socio-demographic characteristics of respondents; types of antenatal and post-natal services available to women of reproductive age; utilization of the existing antenatal/ postnatal health services; Social, Economic and Cultural factors that determine the use and non-use of antenatal and post-natal health services; and Various measures that could be introduced to enhance utilization of antenatal and postnatal care.

4.2 Socio-Demographic Characteristics of Respondents

The section gives detailed descriptions of the personal data of the respondents which include their residential area, age, religion, marital status, age at first marriage, educational qualification, age of youngest child and sources of information.

Table 4.1: Socio-demographic Characteristics of Respondents

Variable	Frequency (%)	Variable	Frequency (%)
Religion		**Age of Youngest Child**	
Islam	208 (83.2)	9mth-3yrs	202 (80.8)
Christianity	42(16.8)	4-6yrs	39(15.6)
Age		7 and above	9(3.6)
15-24	110 (44.0)	**Information about Antenatal/ Postnatal Care**	167(66.8)
25-34	116 (46.4)	Radio	167(66.8)
35 and Above	24(9.6)	TV	12(4.8)
Marital Status		Print Media	6(2.4)
Unmarried	-	Internet	6(2.4)
Married	244 (97.6)	Others	59(23.6)
Widow	6(2.4)		
Age at First Marriage			
11-20 years	236(94.4)		
21 years and Above	14(5.6)		
Occupation Status (Women)			
Farmer	31(12.4)		
Business/Petty Trader	195(78.0)		
Civil Servant	13(5.2)		
Others	11(4.4)		
Occupation Status (Husband)			
Farmer	102 (40.8)		
Daily Labourer	26 (10.4)		
Civil Servant	44 (17.6)		
Businessmen	78 (31.2)		
Formal Education Attainment (Women)			
Primary	70(28.0)		
Secondary	107(42.8)		
Tertiary	3(1.2)		
None	70(28.0)		
Formal Education Attainment (Husband)			
Primary	64(25.6)		
Secondary	85 (34.0)		
Tertiary	64 (25.6)		
I don't know	37 (14.8)		

Source: field work 2018

Table 4.1 shows that of the 250 respondents that participated in the study, 83.2 % are Muslims and 16.8% are Christians. This means that, majority of the participants practice Islam as their official religion. The age of the respondents indicated that 44% of the participants fall between the age of 15-24 years, 46.4% falls between the age of 25-34 years

and 9.6% of the respondents fall between the age brackets of 35years and above. This means that majority of the respondents fall within the reproductive age of 25 years to 34 years.

Findings on the marital status of the respondents also show that 97.6% of the participants are married and 2.4 % are widows. This implies that overwhelming majority of the respondents are married. The study also revealed that 94.4% of the participants married between the age of 11-20 years and 5.6% of the respondents got married between the age bracket of 21 years and above. This means that majority of the participants got married at a very young age.

However, 12.4% of the participants' occupation (women) are farmers, 78.0 % are business/ petty traders, 5.2% are civil servants and others are 4.4%. This means that overwhelming number of the participants are businesswomen and petty traders. Findings on formal education attainment of the respondents (women) shows that 28.0% of participants have primary education, 42.8% have secondary education and 1.2% obtain post-secondary education, while 28% have no formal education at all. This implies that majority of the participants have formal education, as such, they can read and write. On the other hand, 25.6% of the participants' husband has primary education, 34.0 % have secondary education, and 25.6% attended higher education, while 14.8% are not certain about their husbands' formal education attainment. This means that the majority of participants husbands' have western education that could help influence their utilization of antenatal and postnatal care services in the study area. More so, findings on the occupation of the participants' husbands revealed that 40.8% are farmers, 10.4% are daily labourers, 17.6% are Civil servants and 31.2% are businessmen. This shows that majority of the participants husband have sources of income to cater for their homes.

The study revealed further that, 80.8% of the participants' youngest child is between the age ranging from 9 months to 3years, 15.6% are between the age bracket of 4-6years and 3.6% between the age of 7years and above. This means that majority of the participants give

interval of 1- 3 years before getting pregnant. Finally, 66.8% of the participants revealed that they were informed about antenatal and postnatal care services through the radio, 4.8% were informed through the television. Also, 2.4 % got to know through the print media; similarly 2.4% were informed through the internet and 23.6% through other means of communication. This submits that, radio is a major means through which the participants got informed about antenatal and postnatal care services in the study area.

4.3 Types of Antenatal and Post-natal services available for Women of Reproductive Age

This section provides information about the participants' knowledge on types of services available in the health centres for women of reproductive age.

Table 4.2: Respondents' views on availability of health care facility within the community

Views	Frequency	%
Yes	201	80.4
No	49	19.6
Total	**250**	**100**

Source: field work 2018

Table 4.2 revealed that an overwhelming majority of participants (80.4%) attested that they have health care facility in their community. This implies that, women of reproductive age aware of ANC and PNC services in the study area.

Table 4.3: Respondents' views on distance of the healthcare facility

Distance based on kilometre, Hour & minute	Frequency	%
Kilometre		
0-5km	94	37.6
6-10km	16	6.4
11km and Above	16	6.4
Hour		
1-3hrs	17	6.8
4-6hrs	-	-
Minute		
0-20min	86	34.4
21-40min	19	7.6
41-59min	2	0.8
Total	**250**	**100**

Source: field work 2018

Though, the preceding Table showed that, there are health facility in the community, Findings from Table 4.3 indicated that, 37.6% of the respondents trek/walk 0 to 5km, 6.4% walk 6 to 10km and 6.4% walk 11km and above before getting to the health facility. While, 6.8% walk or travel for 1-3hours before getting to the health facility. However, 34.4% travel/walk for between 0-20 minutes, 7.6% 21-40 minutes and only 0.8% walk/travel 41-59 minutes before getting to the health facility. This implies that, significant proportions of the respondents are not that far away from the health facility.

Table 4.4: Respondents' views on means of travelling to the facility

Means of transportation	Frequency	%
Trekking/walking	113	45.2
Public vehicle	107	42.8
Personal vehicle	30	12.0
Total	**250**	**100**

Source: field work 2018

Table 4.4 explicitly shows how the respondents get to the health facility. From the findings, 45.2 % usually trek/walk, 42.8 % use public transport in order to travel to the health facility for their ANC and PNC check-up, 12.0% use personal vehicles. This finding indicated that, the health facilities are not out of reach for women of reproductive age to utilize for ANC and PNC services.

Table 4.5: Respondents' views on whether the health care facility provides services to pregnant women and the new born

View	Frequency	%
Yes	247	98.8
Don't know	3	1.2
No	-	-
Total	**250**	**100**

Source: field work 2018

The data collected indicated that overwhelming majority (98.8%) of respondents are aware that the health care centres provide services to pregnant women and the newborn. This support the

preceding findings which indicated that, most of the pregnant women and nursing mothers visit the health care centres for ANC and PNC services in the study area.

Table 4.6 Respondents' views on types of services provided to pregnant women and nursing mothers

Services provided in the facility	Frequency	%
Monitoring for hypertensive disorder of pregnancy	247	98.8
Folic acid supplementation	245	98.0
Intermittent preventive treatment (IPT) for malaria	245	98.0
HIV counselling and testing services to HIV positive pregnant women for PMTCT	244	97.6
Parenteral administration of antibiotics (IV or IM).	244	97.6
Parenteral administration of oxytocic (IV or IM)	244	97.6
Iron supplementation	243	97.2
Parenteral administration of anticonvulsant for hypertensive disorders of pregnancy (IV or IM).	238	95.2
Blood transfusion	174	69.6
Nutritional counselling for HIV positive pregnant women and their infants for PMTCT.	101	40.4
Infant and young child feeding counselling for PMTCT	100	40.0
HIV counselling and testing services to infants born to HIV positive pregnant women for PMTCT.	99	39.6
ARV prophylaxis to HIV positive pregnant women for PMTCT.	62	24.8
ARV prophylaxis to newborns of HIV positive pregnant women for PMTCT.	58	23.2
Manual removal of placenta	48	19.2
Assisted vaginal delivery	41	16.4
Neonatal resuscitation	20	8.0
Caesarean section	17	6.8

Note: Multiple responses recorded

Source: field work 2018

Table 4.6 shows responses on the types of services provided to pregnant women in health care centres in Makarfi Local Government Area. From the analysis, 98.8% were monitored for hypertensive disorder of pregnancy, 98% were given folic acid supplementation during

pregnancy, 98% receive Intermittent Preventive Treatment (IPT) for malaria. 97.2 % received Iron supplementation, 98% were given folic acid supplementation during pregnancy, 98% receive Intermittent Preventive Treatment (IPT) for malaria, while 98.8% were monitored for hypertensive disorder of pregnancy. The study also found that, 97.6% of the respondents do receive HIV counselling and testing services to HIV positive pregnant women for PMTCT, 97.6 % of the respondents attested that, they were given parenteral administration of antibiotics (IV or IM), 97.6% get parenteral administration of oxytocic (IV or IM) during ANC visit. Added to this, 95.2% of the respondents were given parenteral administration of anticonvulsant for hypertensive disorders of pregnancy (IV or IM). However, it was found that HIV prevention and control services were not available to most of the respondents, for instance, only, 39.6% receive HIV counselling and testing services to infants born to HIV positive pregnant women for PMTCT. Also, 24.8% of the respondents were given ARV prophylaxis to HIV positive pregnant women for PMTCT. Added to this, 23.2% received ARV prophylaxis to newborns of HIV positive pregnant women for PMTCT and only 40.0% of the respondents were given nutritional counselling for HIV positive pregnant women and their infants for PMTCT. This implies that significant majority of the respondents that attend ANC/PNC are not HIV/AIDs patients and as such the services are not made available.

On the other hand, findings on PNC services available revealed that, 16.4 % were assisted with vaginal delivery. Also, 19.2% were assisted with manual removal of placenta. Similarly, 8.0 % of the respondents were helped with neonatal resuscitation, 6.8% were delivered through Caesarean section and 69.6% were assisted with blood transfusion. This showed most of the pregnant women do not experience complications during delivery.

In an interview conducted with health practitioner (female) noted that:

> When pregnant women attend the health care facility for antenatal and postnatal services, we use to let them get card and wait for the services. We use to test their urine to see whether it contains Glucose or not, HIV/AIDs testing is conducted, measure their blood pressure

> and weight. Thereafter, the pregnant women are then advice on nutrition, sanitation and personal hygiene. Also, the pregnant women urines are tested to see whether it contains protein so that proper measures can be taken to prevent tetanus problem. Treated mosquito net is being given to them to prevent malaria infection. As the pregnancy progresses, the attendees are been examined to know the condition of the baby in the womb. After delivery, we teach the women about child care, nutrition, sanitation, family planning, breasting feeding, and immunization among others.

According to another respondent who is (female) Health Practitioner said:

> There are a lot of services for pregnant women and nursing mothers include: screening of blood and urine to detect diseases such as STI, HIV/AIDs and other infections. Also the weight of the pregnant women is being measured as well as the administration of tetanus injection. The women are also taught about environmental sanitation, personal hygiene, child care, exclusive breast feeding and its benefits as well as the various types of family planning methods among others.

While another female respondent (Community Health Practitioner) said:

> The first thing we do is to book the client for them to obtain card. Thereafter, we conducted various tested to ascertain the condition of the pregnant woman and the unborn baby. We also examine the heart bit of the mother and baby, then, advice where necessary. After delivery, the mother will also be examined physically, socially, psychologically and the baby will be given immunization.

It can be observed from the findings that both the pregnant women that served as respondents and the health practitioners attested to the fact that, there are various ANC/PNC services that are offered in the health centres in Makarfi Local Government Area. However, the extents to which these services are utilized have not been ascertained at this level of analysis.

Table 4.7: Types of immunization services for the newborn and children under 5 years

Types of Services	Frequency	%
Routine measles immunization	247	98.8
Routine polio immunization	247	98.8
Routine DPT-Hib+HepB immunization (pentavalent)	245	98.0
BCG immunization	245	98.0

Note: Multiple responses recorded

Source: field work 2018

Table 4:7 shows that 98.8% of the respondents take their newborn and children to health facility for routine measles immunization, 98.8% of the respondents take their newborn for routine polio immunization. In the same vein, 98.0% allow their new born to be immunized routinely for DPT-Hib+HepB (pentavalent). In the same vein, 98% of the respondents also agree to go health facility in order for their newborn to receive BCG immunization. This explains the fact that, most of the nursing mothers in Makarfi Local Government Area use the various types of immunization services for their newborn and children.

Table 4.8: Respondents' views on where the services were provided

Place where the services was provided	Frequency	%
Both	220	88.0
Facility only	26	10.4
Outreach only	4	1.6
Total	**250**	**100**

Source: field work 2018

Table 4: 8 provides an insight on where the ANC/PNC services are provided. As it can be seen from findings, 88 % receive the services both at the facility and outreach, 10.4 % receive the services at facility only, 1.6 % at outreach (are health care services provided to clients at their homes). This implies that, the services are provided to pregnant women and nursing mothers on the basis of need and easy access.

Table4. 9: Respondents' views on health professionals that provide antenatal and postnatal care services

Health Professional	Frequency	%
Community Health Officer	194	77.6
Midwife	64	25.6
Hospital Doctor	22	8.8
Family Doctor	9	3.6
I don't know	6	2.4
Others	-	-

Note: Multiple responses recorded

Source: field work 2018

Table 4.9 tries to find out the health professionals that attend to pregnant and nursing mothers in the study area. Based on the findings, it was revealed that, 77.6% were attended to by professional trained community health officers, 25.6% were attended to by Midwife, 8.8% by hospital doctor and 3.6% by family doctor, while 2.4% do not know in the speciality of health worker that attended to them. Thus, it can be deduced from the finding that, most of the respondents visit primary health care centres their ANC and PNC check up. This could be attributed to the fact that; the general hospital is not usually accessed by most of the respondents in the study. This based on the fact that, Community Health Extension Worker (CHEW) are trained to handled issues of ANC/PNC at primary health care centres.

4.4 Utilization of available Ante-natal and Post-natal services

This section provides information about the participants' utilization of available antenatal and postnatal care services by women of reproductive age in the study area.

Table 4.10: Responses on whether the participants do register their pregnancy at health care

	Frequency	%
Yes	224	89.6
No	26	10.4
Total	**250**	**100**

Source: field work 2018

Table 4. 10 shows that 89.6% of the respondents go to hospital to register their pregnancy in order to receive proper ANC/PNC services, while 10.4 % don't for reasons best know to them. This implies significant portion of the pregnant women are self motivated and sometime been influenced by the environment.

Table 4.11: Respondents' views on where the participants go for antenatal and post-natal care service checkups

ANC and PNC check-ups facility	Frequency	%
Primary Health Care centre	229	91.6
Government Hospital	17	6.8
Private clinic/Hospital	4	5.2
Total	250	100

Source: field work 2018

Table 11 presents the findings on where the respondents go for their antenatal and postnatal care services. It can be observed that 91.6% go to primary health care centres, 6.8% to general/ government hospital, while 5.2% visit private clinic/hospital for their ANC/PNC check up. This finding supports the preceding table (table 9) which revealed that, most of the respondents that participated in the study were attended to by community health officers. Thus, significant portion of the respondents visit primary health centres for their ANC/PNC check up.

Table 4.12: Respondents' views on whether the participants receive ANC and PNC during last pregnancy and delivery

	Frequency	%
Yes	196	78.4
No	54	21.6
Total	**250**	**100**

Source: field work 2018

Table 4.12 presents the responses of the participants on whether they received any ANC and PNC during the last pregnancy/delivery. Thus, the finding revealed that out of the 250 respondents, 78.4% utilized the services, while 21.6% did not for reasons best known to them. This implies that, majority of the respondents were conversant with the use of ANC/PNC services before now.

Table 4.13 Response on reasons for not receive ANC and PNC during last pregnancy and delivery

Reasons	Frequency	%
Distance	65	26.0
Husband Issues	61	24.4
Finance	60	24.0
Patient –doctor relationship	58	23.2
Cultural factor	3	1.2
Personnel	3	1.2
Total	250	100

Source: field work 2018

Table 4:13 shows the responses of the participant on reasons for not visiting the health facility for ANC/PNC services. Revelation from the study shows that, 26% of the respondents based on their reasons on distance, 24.4% husband issues, 24. 0 % finance and 23.2 % were of the view that, the patient-doctor relationship scared them from visiting the health facility. However, only 2.4% based their reasons on cultural/personnel factors. This finding established that, the major impediment to utilization of the ANC/PNC by the respondents during the last pregnancy was basically the issue of distance, finance, husband issues and patient –doctor relationship. This corroborates with some of the qualitative data collected.

According to 48-year-old female health Practitioner (CHEW) interviewed:

> Some of the women had to pay the fees charged from their personal savings including transportation and others because their husbands did not consent to their visiting the facility; had no money or they had travelled out during the visit. In such situations, the women either got the money from their parents and relations or sold their personal belongings including farm produce to obtain the services.

Another respondent 36 years' female participant (Pregnant woman) interviewed stated that:

> Most a times, their husband doesn't like taking to the hospital for childbirth because most of the health workers are not adequately trained to deliver women of their babies. You may end up wasting your time only to be referred to the city hospitals after they have suffered.

Table 4.14: Respondents' views on services received during the last pregnancy check-up

Services	Frequency	%
Iron tablets / syrup	248	99.2
Blood / Urine tests conducted	248	99.2
Tetanus injection on your arm	247	98.8
Blood pressure examined	247	98.8
Health education	247	98.8
Weight was checked	246	98.4
Physical Examination	243	97.2
Family planning services	240	96.0

Note: Multiple responses recorded

Source: field work 2018

Table 14 shows the responses of the participants in the study on services rendered to them in the facility during the last pregnancy. From the analysis, 99.2% were given iron tablets / syrup, 99.2% of the respondents were asked to give their blood / Urine for test, 98.8% received tetanus injection on their arms, 98.4% got their weight checked, 99.2% , while 98.8% got their blood pressure examined. Added to this, 98.8% of the respondents were given health talk on personal hygiene, sanitation, nutrition and child care. Also, 96 % received family planning services and 97.2 % got physical examination in order to ascertain their level of wellbeing/ health. This finding buttressed preceding table 4.6 on the available ANC/PNC services in the health facilities in the study area. Thus, implies most of the services available are been utilized by the respondents. Especially the blood / Urine tests (98.8%) which helps to detect diseases and infections among the pregnant women and nursing mothers (such as HIV/AIDs, STIs among others) at early stage of development for easily treatment, control and management. The qualitative data also corroborate these findings. For instance, according to 39 years old health practitioner (CHEW) interviewed stated that:

> Truly speaking there is much improvement in the utilization of antenatal and postnatal services compare to how these services were utilized previously. This is because women are getting more enlightenment on the importance of these services to themselves and their children. However, some women outside the town or even neighbouring state such as Kano use to attend because according to some of them, the services in their place is not as effective as the one they receive in Makarfi.

Another respondent, male health worker who is 30 years of age (CHEW) in an interview said:

> It is encouraging to compare what we have been experiencing before. But yet, there is need to intensify effort by all that are concern to have better utilization of these services by women in the area. This is because looking at the number if women located in the area show that there are still many women in the area that are not using the services.

The third discussant, 43 years old a female health worker (CHEW) noted that:

There is positive development and the extent to which these services are used when compare to how these services were utilized before. However, more need to be done in the area of enlightenment and sensitization.

Table 4.15: Response of Participants on medical advice received during the last pregnancy

Advice on:	Frequency	%
Nutrition during pregnancy	224	89.6
Baby care	221	88.4
Complications / problems during pregnancy	220	88.0
Place of delivery	217	86.8

Note: Multiple responses recorded

Source: field work 2018

Table 15 shows the types of medical advices received by the respondents during the last pregnancy. As it can be observed, 89.6% received advice on nutrition during pregnancy and 88.0% received advice on complications / problems during pregnancy, 86.8% were advised on place of delivery, and 88.4% were advised on how to take care of the baby. This means that, most of the pregnancy women that attended antenatal and postnatal care acquire knowledge on how to take care of themselves and the new born. Thus, this is very significant in prevention and control of maternal and infant mortality in the study area.

Table 4.16: Responses on number of time in a week they service at the health care centre

Number of Times in a Weekly	Frequency	%
Once	191	76.4
Three times	57	22.8
Twice	2	.8
Everyday	-	-
Total	**250**	**100**

Source: field work 2018

Table 16 presents how these services are rendered to the pregnant women and nursing mothers in a week. Based on the finding, 76.4% utilize theses service once a week, 22.8% three times a week while 0.8% of the respondents utilize the service twice a week and 22.8% three times a week. This implies that, most of the respondents visit the health care centre once a week, expect for those with some complications and other health issues.

Table 4.17: Respondents' views on health problems developed during the last pregnancy

Types of health problems developed during the last pregnancy	Frequency	%
Anaemia in pregnancy	88	35.2
Prolonged labour	68	27.2
Bleeding during pregnancy	51	20.4
Retained placenta	30	12.0
Obstructed labour	11	4.4
Mal presentation	2	.8
Still birth	-	-
Intra-uterine foetal death	-	-
Total	250	100

Source: field work 2018

Table 17 presents the responses of the participants on health problems that they developed during the last pregnancy. Out of the 250 respondents, 20.4% suffered from bleeding during the pregnancy, for 35.2% of the respondents it was Anaemia, only 4.4 % had problem of obstructed labour, while 27.2% suffered from prolonged labour. On the other hand, 12.0% had problem of retained placenta and 0.8 % with problem mal-presentation. This explains the fact that, most of the respondent suffered from bleeding, obstructed and prolonged labour during the previous pregnancy. This could be attributed to lack of proper health education, poor nutrition, delay in registering the pregnancy and non compliance to health workers advice among others.

Table 4.18: Response on where the problem(s) was managed

Place	Frequency	%
TBA'S Place	88	35.2
Hospital/ Clinic	65	26.0
Home	51	20.4
Traditional healer's house	33	13.2
Prayer house	11	4.4
Others	2	.8
Total	250	100

Source: field work 2018

Table 18 shows the responses of the participants on how the health problems developed in the previous pregnancy was managed. Surprisingly, 35.2% used Traditional Birth Attendants

(TBAs), 26% visited the health care centre for diagnosis and treatment, while 20.4% of the respondents managed the problem at home, and 4.4% go to prayer house in order to address the health problem. Added to this, 13.2 % visited the traditional healers who prepared some herbs and concoction for them. Only 0.8% managed it in their own ways. These findings point to the fact that TBAs and traditional/herbal doctors are very much relevant in handling maternal and newborn problem in Makarfi Local Government Area. This could be attributed to factors such as easy access, lack of proper enlightenment and financial issues.

Table 4.19: Respondents' views on whether they gave birth in the hospital

	Frequency	%
Yes	137	54.8
No	113	45.2
Total	250	100

Source: field work 2018

It can be observed from table 19 that 54.8% of the respondents delivered at the hospital, while 45.2% at home with the help of TBA or experienced women. This shows that though most of the health problems developed during the pregnancy were managed at home with the help of TBAs and traditional healers, however, significant portion of the respondents preferred to deliver in the hospital.

Table 4.20: Response on type of health worker that handle the delivery

	Frequency	%
Traditional Birth Attendant	88	33.6
Nurse	78	31.2
Health personnel/ Doctor	47	18.8
Midwife	41	16.4
Total	**250**	**100**

Source: field work 2018

Table 20 presents the response of the participants on the type of health worker that handled the delivery. Judging from the data, 33.6% of the delivery was handled by traditional birth attendants, 31.2% was handled by nurses, while 18,8% of the respondents attested that, health

personnel/ doctor handled their delivery, and 16.4% by midwife. This finding buttressed the preceding findings which showed that, majority of the respondents delivered in the hospital.

Table 4.21: Response on whether they have ever been assisted through delivery without the presence of a skilled birth attendant

View	Frequency	%
Yes	124	49.6
No	126	50.4
Total	250	100

Source: field work 2018

To press further on the issue of delivery, table 21 shows the views of the respondents on whether they have ever been assisted through delivery without skill birth attendant. Responding to this question, 49.6% attested that they have delivery in one time or the other without assistance of skilled birth attendant, while 50.4% of the responses was in-affirmative. This means though some of the respondents do give birth at home, others seek for the services of skills birth attendant.

4.5 Socio-economic and cultural factors that determine the use and non-use of Antenatal and Post-natal Health services

This section provides information about the participants use and non-use of antenatal and postnatal health services in relation to social, economic and cultural factors in the study area.

Table 4.22: Respondents' views on reasons for visiting the health care facility

Reasons	Frequency	%
Know health status	190	76.0
Husband encouragement	186	74.4
Know health status of the foetus	178	71.2
Offer good service	142	56.8
Health facility is near	129	51.6
Sickness	111	44.4
Encouraged by neighbour	106	42.4
Service is free	98	39.2

Note: Multiple responses recorded

Source: field work 2018

Table 22 presents multiple responses of the participants on the reasons why they visited health facility during the last pregnancy. Based on the data collected, 76% to know their

health status, 74.4% due to husbands' encouragement, and 71.2% visited to know health status of their foetus. Added to this, 56.8% visited because the hospital offers good health services, 51.6% because the health facility was near, 44.4% visited because they were sick, while 42.4% were encouraged by their neighbour and 39.2 % because the services are free. This finding established the fact that, most of the respondents visited the health care facility because of knowing their health status and the foetus condition. From the qualitative data collected, according to a 21-year-old pregnant woman that visited the primary health facility (PHC Mayere)

> Most are times, we do not want to visit the health facility until we observed that we are seriously sick and we find it difficult to manage the condition at home. She further noted that, this sometimes results from the attitude of the husband coupled with influence of the extended family members who use to discourage the husband from spending money on pregnancy knowing there are herbs that can help cure ailment at home.

Another discussant, 18-year-old pregnant woman who visited the Primary Health Centre (PHC Makarfi ward) in an interview said:

> We feel safe by attending antenatal and postnatal services. We may know problems related to pregnancies. If we had never had our pregnancy checked, we would not be able to know if there is any problem(s).

Table 4.23: Response on whether they were attended to when they visited the facility

	Frequency	%
Yes	243	97.2
No	7	2.8
Total	250	100

Source: field work 2018

Table 4:23 shows that, 97.2 % of the respondents affirmed that they were attended to when they visited the health facility, while 2.8% had a different view. This informed that the health workers are always responsive to patients. Hence, this is very important in creating positive patient-doctor relationship.

Table 4.24: Respondents' views on the common features of the health care facility and personnel

Common features	Frequency (Yes only)	% (Yes only)
Personnel are not adequate for the teaming pregnant and nursing mothers in the area.	243	97.2
Personnel are always available in the health care facility.	238	95.2
No adequate drugs for pregnant and nursing mothers in the clinic.	201	80.4
Facility lacks adequate equipment to function effectively.	193	77.2
Personnel not adequately qualified to handle the cases of ante natal and post natal in the facility.	189	75.6
Personnel's good attitude always encourages pregnant and nursing mothers to attend.	160	64.0
The personnel's poor attitude often affects pregnant and nursing mothers' attendance to the clinic.	19	7.6

Note: Multiple responses recorded

Source: field work 2018

Table 24 presents multiple responses of participants as regard to the nature of health care facility and its personnel in Makarfi Local Government Area. Based on the data collected, 97.2% attested the personnel are not adequate for the teaming pregnant and nursing mothers in the area, while 95.2% of the respondents affirmed that, the personnel are always available in the health care facility. Added to this, 80.4% attested that, drugs are not adequately provided for pregnant and nursing mothers in the clinic, 77.2% of the participants affirmed that, the facility lacks adequate equipment to function effectively, and 75.6% of the respondents said that, the personnel not adequately qualified to handle the cases of ante natal and post natal in the facility. In spite of these challenges identified with the health care facility, also, 64.0% of the respondents appraised the personnel, noting that, the good attitude of the health worker always encourages pregnant and nursing mothers to attend. This finding corroborates with qualitative data collected through in-depth interview.

In an interview conducted with 39-year-old female health practitioner with Higher National Diploma in Community Health (HNDCH) said:

> It is true that lack of available resources is one of the major factors that used to affect pregnant women attending antenatal and postnatal services in health care facilities in Makarfi Local Government Area. This is because some women when you interview them, they would tell you that they are responsible to all expenses for the services they use to receive in the facility such as drugs and transportation fare. Thus provision of free services and drugs will motivate women to come and obtain such services.

According to a male health practitioner who is 30-year-old with Higher National Diploma in Community Health in an interview (IDI) noted that:

> Some women use to complain that their inability to attend the antenatal and postnatal services regularly and buy prescribed drugs is due to lack of resources despite the fact that most of these drugs are very cheap.

In an interview (IDI) with 27 years old pregnant women attending antenatal at PHC (Tudun ward, Makarfi) said:

> Some of the women are denied access to maternal health services by their husbands who insisted that their wives utilized alternative sources such as the TBAs and traditional healers. That some of the women utilized some services especially the ANC without the knowledge and permission of their husbands, especially the women that personally paid for the services. the husbands usually pay for health services obtained by the wives and children although, some of the women usually pay for the health services and that of their children especially when the men could not afford or when they refuse to give them money for such services. This category of women was said to be personally empowered and that they were expected to obtain the permission of their husbands before going to the clinics., the inadequate number of health workers to attend to women in the facility is also a setback to effective use of antenatal and postnatal services in the area.

However, the subsequent table throws more light on who decides the place of delivery. This will help to clarify the issue of use and non-use of postnatal services in the Makarfi Local Government Area.

Table 4.25: Response on who decides the place of delivery

Who decides?	Frequency	%
My husband and me	132	52.8
Myself	103	41.2
My family members	15	6.0
Total	**250**	**100**

Source: field work 2018

Table 25 indicates the responses of participants on who decides the place for delivery. Report of the finding shows that 52.8% of the respondents attested that, the decision on place of delivery is mutual. Meaning that, it is a collective decision of both parties. On the other hand, 41.2% of respondents take the decision themselves may be without the consent of their husband. However, 6 % reiterates that, the decision usually is from the pregnant woman's family. Commenting further on this, report from IDI conducted with 21 years old pregnant woman said that:

> For pregnant women who live in family house or with mother-in-law, the decision usually comes from the husband's family. The woman has little to say. Sometime they are not even told, they only observe and see how thing are organized ahead of the delivery time. However, some couples that live far away from the extended family or mother-in-law do have opportunity to decide on issues like this.

This finding explains the fact that, deciding on place of delivery depends on the nature of marital residence. It is however, important to know whether the husbands of the participant often accompany them to utilize the antenatal and postnatal services. This answer will be provided in Table 26.

Table 4.26: Response on whether their husband accompany them to ANC and PNC

	Frequency	%
No	183	73.2
Yes	67	26.8
Total	250	100

Source: field work 2018

Data collected in table 4.26 shows that, 73.2% of the respondents are not accompanied by their husband to utilize ANC/PNC services, while 26.8% of the respondents are accompanied with their husbands to utilize ANC/PNC services. This shows most of men (husbands) in the

study area are need to be enlightened and as such to care for their wives' health and general well-being of the family. It is important to further and find out whether, the participants go for ANC/PNC without the consent of their husband most especially those that are not accompanied by their husbands. The answer to this question is presented in table 27.

Table 4.27: Response on whether they ever attended ANC/PNC without husbands' consent

	Frequency	%
No	181	72.4
Yes	69	27.6
Total	250	100

Source: field work 2018

The data collected indicated that, majority 72.4 % always seek for the approval of their husband before going for antenatal/postnatal services, while 27.6 % of the respondents have attended ANC/PNC without the consent of their husbands owing to one reason or the other. By implication, most of the women that attended ANC/PNC without husband's consent most likely falls under the category of women who are not accompanied by their husband to health facility as found in table in table 4.26. Buttressing the view further, a pregnant woman aged 30 when interviewed at PHC Meyere said:

> Their cultural norm has it that men are the heads of their families and therefore decides what to do on all health matters for their wives, children and other members of their families. She explained that based on the cultural and religious practices, women must obtain permission from husbands or members of the immediate families. These are usually the husbands' parents, brothers, sisters or cousins in the absence of husbands before seeking for health care services. According to her, such members of the family contacted in the absence of the husbands will have to pay for the services utilized. However, she noted that, there are few women who attend ANC/PNC without consent, most especially those that are divorced, or got pregnant outside wedlock and those that are not living in the same town with their husband.

This implies that the decision making power and selection of where to seek health care services rested on the husbands, putting the women at disadvantage especially when emergencies occur in the absence of the husbands which may lead to complications. The next

table provides answer to why some pregnant women/nursing mother may wish not to visit health care facility.

Table 4.28: Respondents' views on reasons for not attending ANC and PNC during last pregnancy and after delivery

Basis	Frequency	%
No money in the house	213	85.6
Afraid of the fee	211	84.4
Feel ashamed to attend	189	75.6
Lack of Husband s' consent	145	58.0
Health facility is far.	132	52.8
Lack of time	131	52.4
Poor attitude of health workers	123	49.2
No health problem	110	44.0
Ignorance	62	24.8

Note: Multiple responses recorded

Source: field work 2018

Table 4.28 presents response on why they did not attend ANC/ PNC during last pregnancy and after delivery. Based on the findings starting with highest recorded frequency/percentage shows that, 85.6% of the respondents attributed the reason to lack/adequate finance to access the services, while 84.4% further noted that they were afraid of the fee/charge which is also related to issue of finance.

Moreover, third point was feeling of shame may be relating to exposing of vital parts, being attended to by male health practitioner and the like, this was endorsing by 75.6% of respondents. Added to this, 58% of the respondents submit to issue of lack of husbands' consent, while 52.8% gave reason that, the health facility is far. More still, 52.4% hinged on lack of time, 49.2% hammered on the poor/negative attitude of health workers, while 44% noted that, they had no health issue that would have compel them to attend and least the was ignorance which recorded 24.8% of entirely respondents' endorsement as a reason for not attending ANC/PNC during last pregnancy. This finding is being buttressed by the qualitative data collected from the respondents.

In an interview with respondent (female Health worker) she said that:

> One of the serious factors that affect the effective utilization of antenatal and postnatal services sometimes comes from the husband and mother-in-law. Some cases you would find out that both the husband and his mother are against the utilization of the services. As such, they see it as extravagant or intending to do what is not necessary in life. Some mother –in-law use to say 'I have given birth to so many children but I never received such services that you are talking about and as you can see I am healthy like any other woman'.

In the same vein, anther respondent (male Health Worker) who commented on the issue of husband/mother-in-law support for antenatal and postnatal services argued that:

> Some women use to complain that their husbands do not like these services therefore; they are not ready to give any support either financially, socially or emotionally. Thus, these kinds of women are left with expenses such as the transportation fees, money to buy drugs and others. While, other are not even allowed to live the home in order to utilize the services.

On issue of social status of the women, one of the respondents (male health worker) 30 years of age posited that:

> Social status of the women within the family setting is one of the factors that affect the effective utilization of antenatal and postnatal care services. Men have control over their wives, for that reason women hardly take any decision as regard their health without the permission of their husbands. Though some women know the importance of ANC/PNC services but, because they have to take directives from their husbands, thus they cannot utilize the services.

As regard to issue of distance, the respondent had this to say:

> Some women have to trek/travel far away from their house to obtain the services and so cases without the consent or full support of their husband.

In the case of perceived negative effect of the drugs, the respondent noted that:

> Some women use to complain that the drug use to increase their body size as such, they use to find it very difficult during labour to deliver in time. As a result, some pregnant use to find it difficult to taking the drug even they are available and accessible. While to others, they use to say that even those who have been utilizing the ANC services use to find it difficult given birth, so why shall I bother myself going to the hospital and even waste my resources.

Another respondent (female health worker) 39 years old with National Diploma in Community Health stated that:

> Before now, women use to complain that modern antenatal and postnatal services have many negative consequences such as enlargement of the babies in the womb and that the drug use to cause vomiting and even make some women to be weak and tired.

On issues of patient-doctor relationship, the respondent reiterated that:

> Our relationship with pregnant women and nursing mothers is very cordial and without any problem. Also, to some extent the manpower is enough and we have available drugs to give to women that come for antenatal and postnatal services.

Similarly, another respondent (male health worker) support by saying that:

> The issue of relationship between the health worker and the client is cordial and the quality of the services is satisfactory. But there is need to meet up with the increasing demand of the services in Makarfi Local Government Area, Kaduna state.

This finding shows that, husband and mother-in-law interference, finance and culture among others are contributing factors to use and non-use of antenatal and postnatal services in the study area. These inferences are further supported with the findings in the next tables.

Table 4.29: Response on amount of money spent to attend antenatal and postnatal services

Amount (₦)	Frequency	%
0-100	133	53.2
101-200	73	29.2
201-300	22	8.8
301-400	10	4.0
401-500	9	3.6
501 and Above	3	1.2
	250	100

Source: field work 2018

With regards to responses on table 4.29, 53.2% of the respondents use to spend up to ₦ 100, while 29.2 % spend more than ₦100 up to the sum of ₦ 200 as transport fee. 8.8% of the respondents spend between ₦200 to ₦300 in order to attend and utilize antenatal and

postnatal services. Also, 4% of the respondents spend between ₦301 and ₦400, while 3.6% spend between ₦400 to ₦500 with only 1.2% spending above ₦500 as transport fare. Thus, all the participants in the study pay reasonable amount before they can utilize the ANC/PNC services. This finding support the preceding report in table 28 which report distance among the factors affecting the utilization of antenatal and postnatal services in Makarfi Local Government Area.

Table 4.30: Response on whether the services are free- of- charge

	Frequency	%
No	150	60.0
Yes	100	40.0
Total	250	100

Source: field work 2018

Table 30 presents the responses of the participants on whether the services provide are free-of charge. Out of the 250 respondents, 60 % affirmed that they use to pay for the antenatal and postnatal services rendered to them in the health care centres, while 40% attested that the services are free. In an interviewed conducted with a female health practitioner in Meyere primary health centre she noted that:

> Not all the services rendered to the women are free. They use to pay or buy some of the drugs prescribed to them which are not available in the hospital. In some cases, the women are referred to general hospital for health cases that have complications and cannot be handled at the PHC level.

Table 4.31: Response on amount paid for services that are not free-of charge

Amount (₦)	Frequency	%
0-100	84	33.6
101-200	64	25.6
201-300	62	24.8
301-400	25	10.0
401-500	15	6.0
	250	100

Source: field work 2018

In responding to amount paid for services that are not free, 33.6% of the participants in the study report that they use to pay ₦100 or there about, 25.6% pay a sum between 100-200

naira. In the same vein, 24.8% noted that, they use to be charged 200-300 naira, while 10% spend between 300-400 naira with only 6% of the respondents that spend above 400 naira. This implies that, the charges are reasonable and not too expensive for the participants.

Table 4.32: Response on payment of the hospital charges by husband

View	Frequency	%
Yes	183	73.2
No	67	26.8
Total	250	100

Source: field work 2018

Table 32 presents the responses on the person that pays for the hospital bills during ANC/PNC check-up. Judging from the findings, 73.2% of the women that participated attested that, their husband use to pay for the charges, while 26.8% of the respondents pay the bills using their personal savings and the likes. This indicates the significant number of the participants' husbands support the utilization of the antenatal and postnatal services in Makarfi Local Government Area, Kaduna state.

Table 4.33: Response on alternative source of income by women to pay hospital Bills

View	Frequency	%
Yes	173	69.2
No	77	30.8
Total	250	100

Source: field work 2018

Significant majority of the respondents (69.2%) said that their source of income can enable them access antenatal and postnatal services in case their husbands' could not afford to pay, while 30.8% of the participants submit that their source of income is inadequate. This finding further supports the fact that, the cost for antenatal and postnatal services in Makarfi Local Government Area is reasonable and affordable.

Table 4.34: Response on whether the alternative source of income motivate them to access antenatal and post-natal services

View	Frequency	%
Yes	173	69.2

No	77	30.8
Total	250	100

Source: field work 2018

Responding on whether their source of income encourages them to utilize the antenatal and postnatal services. Out of 250 respondents, 69.2% assented, while 30.8% submit that their source of income is not enough to encourage them utilize the services. This supports the findings on table 1 which showed that majority of the participants in the study engage in petty trade/business.

Table 4.35: Respondents' views on influence of religious affiliation on utilization of antenatal and post-natal services

View	Frequency	%
Yes	232	92.8
No	18	7.2
Total	250	100

Source: field work 2018

It can be seen from the table that, significant portion of the respondent (92.8%) assent that religious beliefs or practices determine the extent to which antenatal and postnatal services can be utilized in Makarfi Local Government Area. Thus, this finding is not surprising based on the fact that, religion has been found in previous studies to significantly influence the extent to which pregnant women and nursing mother utilize antenatal and postnatal services.

Table 4.36: Response on extent of influence of religious affiliation on utilization of antenatal and post-natal services

View	Frequency	%
Very High	104	41.6
High	97	38.8
Low	33	13.2
Very low	16	6.4
Total	250	100

Source: field work 2018

The result on table 36 established that 41.6 % assent that religious affiliation to a very high, 38.8% high extent influences the choice of utilizing antenatal and postnatal services, while 13.2% of the respondents agreed on low influences and 6.4% believe to has very low influences. This supports the preceding finding on religious affiliation as a determinant factor. Thus, religious leaders play a critical role in enhancing/ reducing the level to which pregnant women and nursing mothers can utilize the available antenatal and postnatal services in Makarfi Local Government Area, Kaduna state.

Table 4.38: Respondents' views on traditional beliefs that mostly affect effective utilization of ANC and PNC services

View	Frequency	%
Fear of exposing private part/vital organs to other men than their husbands.	118	47.2
Fear of health practitioners' disgrace.	49	19.6
Fear of discouraging the use of traditional herbs.	42	16.8
Fear of discouraging the use of hot water.	32	12.8
Others	9	10.8
Total	250	100

Source: field work 2018

Another social factor that influences the use and non-use of antenatal and postnatal services is the traditional beliefs of the people. Thus, findings on table 4.38 shows that, 47.2% of the respondents noted that fear of exposing their private part/ vital organs to other men than their husbands influence to greater extent influence their choice of utilizing ANC/PNC services, 19.6% are affected by the unfriendly behaviour of some health workers. In the same vein, 16.8% of the respondents are affected by the fact that, providers of modern maternal and child care services discourage the use of traditional herbs which to most of them is very helpful in reducing hard labour, cure minor/major ailments during pregnancy and after

delivery. Added to this 12.8% fear that they may be prevented from the use of hot water which traditional is believed to be very helpful in rejuvenating their body shape to normal, while 10.8% are undecided. This findings point to the fact that, the presence of male health workers during antenatal care, in the labour room and physical examination of the pregnant women and nursing mothers as an attempt to providing services highly affects the utilization of antenatal and postnatal services in Makarfi Local Government area.

4.5 Measures that could be introduced to Enhance Utilization of Antenatal and Post-natal care services

This section provides information about the participants view on how antenatal and post-natal care services utilization can be enhanced among women of reproductive age in the study area.

Table 4.39: Responses on measures for enhancing the utilization of ANC and PNC services

Possible Measures	Frequency	%
Good health worker attitude.	223	89.2
Provision of free mass transit for pregnant women and nursing to hospital.	191	76.4
Availability of staff.	184	73.6
Short waiting hours.	126	50.4
Provision of modern facilities.	105	42.0
Flexibility of clinic schedules.	104	41.6
Free ANC and PNC services.	103	41.2
Public enlightenment.	103	41.2
Male involvement initiative.	96	38.4

Note: Multiple responses recorded

Source: field work 2018

In order to enhance the utilization of antenatal and postnatal services in Makarfi Local Government Area, Kaduna state, findings based on multiple responses indicated that, 89.2% of the respondent suggested positive attitude of health worker toward pregnant women and nursing mothers. Another vibrant measure suggested by the respondents was the provision of free mass transit for pregnant women and nursing to hospital (76.4%). The third most impressive suggestion by the respondents was provision of adequate staff (73.6%) to

manage the teeming population of women that turnout for ANC/PNC services in the study area.

More importantly as suggested by the respondents (50.4%), submit that, the health care facility should enhance their services in order to shorten the waiting hours. Thus, this will motivate the women to utilize the antenatal and postnatal services. Similar responses were recorded on provision of free ANC/PNC services (41.2%) and public enlightenment (41.2%) as measures for enhancing the utilization of ANC and PNC services in the study area. Provision of modern facilities (42 %) and Flexibility of clinic schedules (41.6%) were another welcome measures by the respondents. However, suggestion for male involvement initiative recorded the lowest vote (38.4%).

Suggestion from a respondent (female health worker) was that:

> Both religious and traditional leaders should intensify their effort toward enlightening husbands about the importance of having these services by pregnant women and their children. This is because now a days a lot of health problems that were not experienced before are surfacing. Thus, it is only through attending antenatal and postnatal care services that the problems can be addressed. Moreover, every husband has power his wife/wives. So, even if their wives do not have interest to utilize the services. They should motivate them through the use of various ways. The respondent further noted that, some men a times use to discourage their wives instead of encouraging them by saying why would I spend my money on antenatal after all, you used to delivery without any problem at home. With this kind of development, there is need to educate husband on the importance of ANC/PNC services.

On issue relating to availability of medicine in the health care centre, the respondent suggested that:

> Government should provide medicine and make it available and accessible as many pregnant women use to complain that they would not be able to buy the drug expected of them to buy. This is because some women are sponsoring themselves to utilize the services. This will address the issue of suspicion which most attendees have about health workers selling out the drugs to chemist and other private health practitioners.

Suggestion to the pregnant women and nursing mothers, the respondents said that:

> Women within the reproductive age that use to attend the hospital for antenatal and postnatal services should be encouraged to be taking their drugs as prescribed by the health worker. This is because a lot of women think that seeing the health worker is most important not taking the drugs.

Another respondent (male health practitioner), suggested that:

> There is need for government to provide more staff in order to effective carry out antenatal and postnatal services in health care centre in Makarfi. Furthermore, non-governmental organisation should intensify their commitment towards providing drugs and other materials needed that will motivate mothers to be attending antenatal and postnatal care services regularly. The respondent also reiterated the need for public enlightenment especially at places of worship such as the mosque, church on the importance of the services and risk for not utilizing it. Government should also ensure the provision of free and affordable drugs to pregnant women and nursing mothers.

4.6 Discussion of Findings

Findings on types of antenatal and post-natal services available for Women of Reproductive Age revealed that, overwhelming majority of participants have health care facility in their community. It was also found that, some of the respondents' trek/walk 0 to 5kms, other walk 6 to 10km, also some of the respondents walk 11km and above before getting to the health facility, while, others walk/trek for 1-3hours before getting to the health facility. However, some of the respondents trek/walk for between 0-20 minutes, 7.6% 21-40 minutes and a few walk/travel 41-59 minutes before getting to the health facility. Furthermore, some usually trek/walk, others use personal vehicles while overwhelming majority use public transport in order to travel to the health facility for their ANC and PNC check ups.

The study revealed that, the respondents receive Iron supplementation, folic acid supplementation during pregnancy, Intermittent Preventive Treatment (IPT) for malaria, while some were tested for hypertensive disorder of pregnancy. To support this findings, Osungbade, Oginni and Olumide (2008) submit that, typical antenatal care services should include collection of data on previous and current history of pregnancies, routine

measurement of weight, height and blood pressure, abdominal palpation, nutritional advice, examination for the presence or absence of oedema, distribution of iron and folate supplements, malaria prophylaxis, blood testing for haemoglobin, urine testing for protein and tetanus toxoid vaccination.

It was found that, the respondents do receive HIV counselling and testing services to HIV positive pregnant women for PMTCT, parenteral administration of antibiotics (IV or IM) and parenteral administration of oxytocic (IV or IM) during ANC visit. Added to this, some of the respondents were given parenteral administration of anticonvulsant for hypertensive disorders of pregnancy (IV or IM). This is in line with World Health Organization [WHO] (2010) that antenatal care service should include: test for HIV/AIDs and other sexually transmitted diseases, examinations and measurement of blood pressure, testing of urine for bacteriuria and proteinuria, and blood tests to detect syphilis and severe anaemia.

On the other hand, findings on PNC services available revealed that, some respondents were assisted with vaginal delivery, manual removal of placenta, neonatal resuscitation, delivery through Caesarean section and blood transfusion. This finding concur with the recommendations of WHO (2014) on postnatal service which submit that, the services should include: assess and check for bleeding, check temperature, checking the breasts to prevent mastitis, managing anaemia, giving of vitamin A supplementation among others. The findings further showed that, most of the pregnant women do not experience complications during delivery. However, this could be attributed to quality ANC services received by most of the respondents. This support the finding of Ugal, Uschie, Uschie and Ingwu (2012) which indicated that significant relationship between utilization of maternal health facilities and maternal health outcome manifest in successful and healthy birth outcomes.

It was also found that significant number of the respondents take their newborn to health facility for routine measles immunization, allow their new born to be immunized routinely for DPT-Hib+HepB (pentavalent), routine polio immunization and BCG immunization. These services were found to be provided at outreach level and in the facility mostly by community health officers and Midwife. This is in line with the WHO (2014) recommendations that, the newborn should be taken for routine immunisations and Counselling for identification of danger sign at early stage of development for easy intervention and treatment.

Findings on utilization of antenatal and postnatal services revealed that, some of the respondents go to hospital and register their pregnancy for proper utilization of ANC/PNC services. Remarkable numbers of the participants did their registration in primary health care centres and as such were attended to by community health officers. More so, the study established that, the major impediment to utilization of the antenatal and postnatal services by the respondents during the last pregnancy was basically the issue of distance, finance, husband issues and patient –doctor relationship. This concur with the findings of Abubakar, Sambo and Idris (2011); Butawa, Tukur, Idris, Adiri and Taylor (2010); Dairo and Owoyokun (2010); Gazali, Muktar and Gana (2010); which all revealed that poverty, socio-cultural beliefs and practices, attitude of health workers and availability of facility and quality service among others affects the effective utilization of the maternal health care facility by women.

Furthermore, it was found that some of antenatal and postnatal services utilized by the respondents include: receiving of tetanus injection on their arms, iron tablets / syrup, weight checking, blood /Urine test to detect diseases and infections if any as well as blood pressure and physical examination. Added to this, the respondents were given health talk on personal hygiene, sanitation, nutrition and child care as well as family planning service. This implies that most of the services available were utilized by the respondents. Especially the blood /

Urine tests which helped to detect diseases and infections among the pregnant women and nursing mothers (such as HIV/AIDs, STIs among others) at early stage of development for easily treatment, control and management. This finding agrees with the study of Babalola and Fatusi (2009) which revealed that, utilization of antenatal and postnatal care services provide women with opportunity for early detection of diseases and timely treatment. It also provides opportunities for preventive health care services such as immunization against neonatal tetanus, prophylactic treatment of malaria through the use of intermittent presumptive treatment approach, and HIV counselling and testing.

The finding further revealed that the respondents received medical advices on complications / problems during pregnancy, place of delivery, nutrition during pregnancy as well as advice on care of the baby. Thus, this is very significant in prevention and control of maternal and infant mortality in the study area. This support the recommendations of Butawa, Tukur, Idris, Adiri and Taylor (2010) based on their findings that, quality of services given to women must help to increase their awareness about maternal healthcare in the rural areas of the North.

Though, the study established that, the antenatal and postnatal services were utilized by most of the women once a week. However, health problems such as bleeding during the pregnancy, Anaemia and prolonged labour formed the major health issued that necessitated the utilization services during the last pregnancy. This could be attributed to lack of proper health education, poor nutrition, delay in registering the pregnancy and non-compliance to health workers advice among others. This support the findings of Dairo and Owoyokun (2010) which revealed that, women in urban areas were more than 2 times likely to attend antenatal clinic than women in urban areas.

Added to this, the study revealed that, significant portion of the respondents managed their health problems during the last pregnancy by utilizing the services of Traditional Birth

Attendants (TBAs), traditional healers and prayer house, while some of the respondents managed the problem at home. Surprisingly, some of the respondents visited the health care centre for proper diagnosis and treatment. Though, most of the deliveries were in the hospital and handled by medical personnel, with some of the delivery handled by traditional birth attendant. This finding buttressed the preceding findings which showed that, majority of the respondents delivered in the hospital. Thus, these findings point to the fact that TBAs and traditional/herbal doctors were seen to be much more relevant in handling maternal and child problems in Makarfi Local Government Area. This could be attributed to factors such as culture, easy access, lack of proper enlightenment and financial issues. This finding uphold the research revelations of Ahmed, Creanga, Gillespie and Tsu (2010); Ibor, Anjorin, Ita, Out and Bassey (2012); Knight, Self and Kennedy (2013); Ory and Van Poppel (2013); Yego, D'Este, Byles, Williams and Nyongesa (2014) that, income, education, religion, distance and occupation significantly influenced the utilization of ANC/PNC services by child-bearing women.

In trying to ascertain the reasons for their visit to health care centre during pregnancy and after delivery, the multiple responses result revealed that, some of the respondents did so due to their husband encouragement and to know their health/foetus status, while others were because they were sick and some seeing that the health facility is near. Similarly, some were encouraged by their neighbour and that the services were free. This finding established the fact that, most of the respondents visited the health care facility because of knowing their health status and the foetus condition. This finding support the submission of Fatso et al., (2009) that, use of antenatal and postnatal services are mostly influenced by proximity of the health facility, cost of fees , environment and husband issues.

Furthermore, the respondents described the common features of the health facility and personnel. Significant majority noted that, the personnel are always available in the health

care facility and their good attitude have always encourages pregnant and nursing mothers to attend. However, the respondents noted that, the personnel are not adequate for the teaming pregnant and nursing mothers in Makarfi Local Government Area. Added to this, the respondents reiterated that, the personnel are not adequately qualified to handle the cases of antenatal and post natal in the facility. Also, the health facility lacks adequate equipments to function effectively and as well, the drug are not adequately provided for pregnant and nursing mothers in the clinic. This finding is in line with the study of Oche et al., (2010); Umar et al (2011) which revealed that, among the major factors responsible for low ANC/PNC attendance hospital deliveries include, the perceived quality of service, inadequacy of the equipments, facilities and health personnel.

The study also found that, most of the respondents always seek for the permission of their husbands to utilize antenatal/postnatal services. Responding to the reasons for not attending ANC/PNC during the last pregnancy, overwhelming number of the respondents draw on lack/adequate finance to access the services, while some attributed the reason to fear of the fee/charge.

In the same vein, the respondents attested that shame relating to exposing of vital parts to other person than their husband and the like was also a determining factor. Added to this, the respondents submit to issue of lack of husbands' consent, while others gave reason that, the health facility is far. More still, lack of time, poor/negative attitude of health workers, while 44% noted that, they had no health issue that would have compel to attend. However, ignorance as a reason recorded the lowest response. This in line with the findings of Onasaga, Afolayan and Bukola (2012) which reveal that affordability of antenatal/postnatal services, lack of knowledge about existing services and husbands acceptance of the services rendered as a major factor the utilization of ANC/PNC services. Also, there is also significant

association between knowledge, distance, marital status, religion and level of education of respondent under the study and their utilization of ANC/PNC services.

In another development, the study established that, other social factor that influences the use and non-use of antenatal and postnatal services is the traditional beliefs of the people. Thus, the fear that they may be prevented from the use of hot water which traditional is believed to be very helpful in rejuvenating their body shape to normal as well as discouragement of the use of traditional herbs which to most of them is very helpful in reducing hard labour, cure minor/major ailments during pregnancy and after delivery also influence the utilization of ANC/PNC services. Added to this, some were affected by the unfriendly behaviour of some health workers. This findings point to the fact that, the presence of male health workers during antenatal care, in the labour room and physical examination of the pregnant women and nursing mothers as an attempt to providing services highly affects the utilization of antenatal and postnatal services in Makarfi Local Government area.

In order to enhance the utilization of antenatal and postnatal services in Makarfi Local Government Area, Kaduna state, the respondents suggested that, improvement in positive attitude of health worker toward pregnant women and nursing mothers, provision of free mass transit for pregnant women and nursing to hospital as well as provision of adequate staff to manage the teeming population of women that turnout for ANC/PNC services in the area. More importantly, the respondents suggested that, the health care facility should enhance their services in order to shorten the waiting hours. Thus, this will motivate the women to utilize the antenatal and postnatal services. Similarly, the provision of free ANC/PNC services and public enlightenment were also suggested as measures for enhancing the utilization of ANC and PNC services in the area. Also, provision of modern facilities and Flexibility of clinic schedules were another welcome measures by the respondents. However, suggestion for male involvement initiative recorded the lowest vote.

CHAPTER FIVE
SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary of Findings

This study focused on sociological analysis of factors affecting the utilization of antenatal and postnatal services in Makarfi Local Government Area of Kaduna State, Nigeria. It examined the various types of antenatal and post-natal services available to women of reproductive age in Makarfi L.G.A, the level of utilization of the existing antenatal/ postnatal health services in the study area, the social, economic and cultural factors that determine the use and non-use of antenatal and post-natal health services in Makarfi and the various measures that could be introduced to enhance utilization of antenatal and postnatal care in the study area.

Findings on types of antenatal and post-natal services available for Women of Reproductive Age revealed that, overwhelming majority of participants have health care facility in their community. It was also revealed that, the respondents receive Iron supplementation, folic acid supplementation during pregnancy, Intermittent Preventive Treatment (IPT) for malaria, while some were tested for hypertensive disorder of pregnancy. The study found that, the respondents do receive HIV counselling and testing services to HIV positive pregnant women for PMTCT, parenteral administration of antibiotics (IV or IM) and parenteral administration of oxytocic (IV or IM) during ANC visit. Added to this, some of the respondents were given parenteral administration of anticonvulsant for hypertensive disorders of pregnancy (IV or IM).

On the other hand, findings on PNC services available revealed that, some respondents were assisted with vaginal delivery, manual removal of placenta, neonatal resuscitation, delivery through Caesarean section and blood transfusion. The findings further showed that, most of the pregnant women do not experience complications during delivery. However, this could be

attributed to quality ANC services received by most of the respondents. The study established that significant number of the respondents take their newborn to health facility for routine measles immunization, allow their new born to be immunized routinely for DPT-Hib+HepB (pentavalent), routine polio immunization and BCG immunization. These services were found to be provided at outreach level and in the facility mostly by community health officers and Midwives.

Findings on utilization of antenatal and postnatal services revealed that, some of the respondents go to hospital and register their pregnancy for proper utilization of ANC/PNC services. Remarkable numbers of the participants did their registration in primary health care centres and as such were attended to by community health officers. More so, the study established that, the major impediment to utilization of the antenatal and postnatal services by the respondents during the last pregnancy was basically the issue of distance, finance, husband issues and patient –doctor relationship. Furthermore, it was found that some of antenatal and postnatal services utilized by the respondents include: receiving of tetanus injection on their arms, iron tablets / syrup, weight checking, blood /Urine test to detect diseases and infections if any as well as blood pressure and physical examination. Added to this, the respondents were given health talk on personal hygiene, sanitation, nutrition and child care as well as family planning service. This implies that most of the services available were utilized by the respondents.

Especially the blood / Urine tests which helped to detect diseases and infections among the pregnant women and nursing mothers (such as HIV/AIDs, STIs among others) at early stage of development for easy treatment, control and management. The finding further revealed that the respondents received medical advices on complications / problems during pregnancy, place of delivery, nutrition during pregnancy as well as advice on care of the baby. Thus, this is very significant in prevention and control of maternal and infant mortality in the study area.

Though, the study established that, the antenatal and postnatal services were utilized by most of the women once a week. However, health problems such as bleeding during the pregnancy, Anaemia and prolonged labour formed the major health issued that necessitated the utilization services during the last pregnancy. This could be attributed to lack of proper health education, poor nutrition, delay in registering the pregnancy and non-compliance to health workers advice among others.

Added to this, the study revealed that, majority of the respondents managed their health problems during the last pregnancy by utilizing the services of Traditional Birth Attendants (TBAs), traditional healers and prayer house, while some of the respondents managed the problem at home. Surprisingly, some of the respondents visited the health care centre for proper diagnosis and treatment. Though, most of the deliveries were in the hospital and handled by medical personnel, with some of the delivery handled by traditional birth attendant. This finding buttressed the preceding findings which showed that, majority of the respondents delivered in the hospital. Thus, these findings point to the fact that TBAs and traditional/herbal doctors were seen to be much more relevant in handling maternal and child problems in Makarfi Local Government Area.

In trying to ascertain the reasons for their visit to health care centre during pregnancy and after delivery, the multiple responses result revealed that, some of the respondents did so due to their husband encouragement and to know their health/foetus status, while others were because they were sick and some seeing that the health facility is near. Similarly, some were encouraged by their neighbour and that the services were free. This finding established the fact that, most of the respondents visited the health care facility because of husband encouragement; knowing their health status and the foetus condition.

Furthermore, the respondents described the common features of the health facility and personnel. Significant majority noted that, the personnel are always available in the health care facility and their good attitude have always encourages pregnant and nursing mothers to attend. However, the respondents noted that, the personnel are not adequate for the teaming pregnant and nursing mothers in Makarfi Local Government Area. Added to this, the respondents reiterated that, the personnel are not adequately qualified to handle the cases of antenatal and post natal in the facility. Also, the health facility lacks adequate equipments to function effectively and as well, the drug are not adequately provided for pregnant and nursing mothers in the clinic.

The study also found that, the respondents were being accompanied by their husband to utilize ANC/PNC services in Makarfi. This justifies the reason why most of the respondents always seek for the permission of their husbands to utilize antenatal/postnatal services. Responding to the reasons for not attending ANC/PNC during the last pregnancy, overwhelming number of the respondents draw on lack/adequate finance to access the services, while some attributed the reason to fear of the fee/charge.

In another development, the study established that, other social factor that influences the use and non-use of antenatal and postnatal services is the traditional beliefs of the people. Thus, the fear that they may be prevented from the use of hot water which traditional is believed to be very helpful in rejuvenating their body shape to normal as well as discouragement of the use of traditional herbs which to most of them is very helpful in reducing hard labour, cure minor/major ailments during pregnancy and after delivery also influence the utilization of ANC/PNC services. Added to this, some were affected by the unfriendly behaviour of some health workers. This findings point to the fact that, the presence of male health workers during antenatal care, in the labour room and physical examination of the pregnant women

and nursing mothers as an attempt to providing services highly affects the utilization of antenatal and postnatal services in Makarfi Local Government area.

In order to enhance the utilization of antenatal and postnatal services in Makarfi Local Government Area, Kaduna state, the respondents suggested that, improvement in positive attitude of health worker toward pregnant women and nursing mothers, provision of free mass transit for pregnant women and nursing to hospital as well as provision of adequate staff to manage the teeming population of women that turnout for ANC/PNC services in the area. More importantly, the respondents suggested that, the health care facility should enhance their services in order to shorten the waiting hours. Thus, this will motivate the women to utilize the antenatal and postnatal services.

Similarly, the provision of free ANC/PNC services and public enlightenment were also suggested as measures for enhancing the utilization of ANC and PNC services in the area. Also, provision of modern facilities and Flexibility of clinic schedules were another welcome measures by the respondents. However, suggestion for male involvement initiative recorded the lowest vote. Added to this, both religious and traditional leaders should intensify their effort toward enlightening husbands about the importance of having these services by pregnant women and their children. This is because in recent times a lot of health problems that were not experienced before are surfacing. Thus, it is only through attending antenatal and postnatal care services that the problems can be addressed. Moreover, every husband has power over his wife/wives. So, even if their wives do not have interest to utilize the services. They should motivate them through the use of various ways. The respondent further noted that, some men a times use to discourage their wives instead of encouraging them by saying why would I spend my money on antenatal after all, you used to delivery without any problem at home. With this kind of development, there is need to educate husband on the importance of ANC/PNC services.

5.2 Conclusion

The factors affecting antenatal and postnatal services utilization operate at various levels - individual, household, community and government. The main objectives of antenatal and postnatal care services are to ensure that every expectant mother maintains good health up to time of delivery and to bear healthy children. The woman is also expected to receive these services from well equipped health facilities and adequately trained health personnel. The study evaluated the factors affecting the utilization of antenatal and postnatal care services in Makarfi Local Government Area, Kaduna state. The study established that, antenatal and postnatal care services are available. However, some women tend to under-utilize services due to socio-economic and cultural factors. Although there is no single solution to this problem in Makarfi Local Government, some strategies that could result in enhanced utilization of maternal health services have been variously outlined. These include capacity building and empowerment of people in the community through orientation, mobilization and women empowerment. Similarly, quality of antenatal and postnatal care service must be assured by those in management positions. This is necessary because the study has shown that most of the health facilities in the study area have poor/inadequate equipment and trained staff and lack of drugs. The cumulative effects of these have led to poor utilization of antenatal and postnatal care services by the women in the area. Some of the health facilities were located far away from some communities negating the principle of equitable distribution of health services and improved access thus, ensuring delay in accessing antenatal and postnatal care services. From the findings, antenatal and postnatal problems like prolonged/obstructed labour, bleeding in pregnancy, anaemia, postpartum haemorrhage, retained placenta, were most frequently occurring in the study location. Thus, there were several cases of maternal morbidity and mortality in the study area that was not reported because they mostly occurred at home.

The study showed that availability and access, income level, husband encouragement, closeness to health facility, attitude of health workers toward pregnant women, religious affiliation and traditional beliefs were important determinants of utilization of antenatal and postnatal care services in the study location. However, poor decision making power of the women, quality of health services, finance and distance were significantly responsible for poor utilization of antenatal and postnatal care services. They were partly responsible for the adoption of different patterns of utilization of health services by women. These modifying factors as described by the Marxist theory of political economy were mostly responsible for the patterns of utilization of antenatal and postnatal care services in health facilities by the women. It is pertinent to note that the increasing involvement of husbands in women's utilization of antenatal and postnatal care services as indicated by their support greatly influenced utilization of the services.

5.3 Recommendations

Based on the findings from the study, the following recommendations were made in order to improve utilization of antenatal and postnatal care services in Makarfi Local Government Area of Kaduna state:

i. The study established that, there are inadequate health personnel in the facilities in the study area. It is therefore recommended that state and local government should employ more staff in order to effectively carry out antenatal and postnatal services in health care centre in Makarfi.

ii. The government should employ more midwives to ensure that there is at least one qualified midwife in each health facilities while the existing CHEWs should be regularly trained in the area of basic maternal and child health services to complement the activities of the midwives and paediatricians. To achieve this, State

Government should direct the Local Government Chairman to offer automatic employment to all her indigenes graduating from the School of Midwifery.

iii. Government and Non-Governmental Organisation (NGOs) should intensify their commitment towards providing drugs and other materials needed that will motivate expectant mothers to be attending antenatal and postnatal care services regularly.

iv. At community, there is need to embark on public enlightenment especially at places of worship such as the mosques and churches by religious leaders and Traditional leaders on the importance of antenatal and postnatal care services and risk for not utilizing it.

v. Government and other stakeholders in health should provide medicine and make it available and accessible as many pregnant women and nursing mothers use to complain that they cannot be able to buy the drug expected of them. This is because some women use to sponsor themselves to utilize the services.

vi. Religious and traditional leaders should intensify their effort toward enlightening husbands about the importance of having antenatal and postnatal care services by their wives and newborn. This is because now a day a lot of health problems that were not experienced before are surfacing. Thus, it is only through attending antenatal and postnatal care services by women that these problems can be addressed.

vii. Medical Sociologists should intensify effort on encouraging health worker to depict positive attitude towards pregnant women and nursing mothers. This will go a long way in motivating women to utilize the services in Makarfi Local Government Area.

5.4 Contributions to Knowledge

This study established that:

i. Utilization of antenatal and postnatal care services amongst women of reproductive age is mostly hampered by inadequate finance, distance, male dominance and

perceived negative attitude of health worker toward patients in Makarfi Local Government Area, Kaduna state.

ii. With the available modern health care services for women of reproductive age, the services of Traditional Birth Attendant (TBA) and traditional healers are still very much relevant sources for treatment and prevention of maternal and child health problems in Makarfi Local Government Area, Kaduna state.

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APPENDIX A: QUESTIONNAIRE

I am an M.Sc. student of the Department of Sociology, Faculty of Social Sciences, Ahmadu Bello University, Zaria. Conducting a research on the topic: A **sociological analysis of utilization of antenatal and postnatal services in Makarfi L.G.A of Kaduna State** as one of the partial requirement for the award of M.Sc. certificate. The exercise is purely for academic purposes and your responses will be treated with utmost confidentiality and anonymity.

Thanks and hope to get your sincere response.

Instruction: Please answer all the questions by ticking the answer that best applies in the spaces provided clearly.

Section A: Socio-demographic Data of the Respondents

1. Residential area
(a). Makarfi Gari [ ] (d). Mayere [ ]
(b). Tudun Wadan Makarfi [ ] (e). Gwanki [ ]
(c). Gazara [ ] (f). Nasarawan Doya [ ]

2. Religion: (a). Islam [ ] (b). Christianity [ ] (c). others……

3. Age ……. (years)

4. What is your marital status? (a). Married [ ] (b). Unmarried [ ] (c). Widow [ ]

5 .How many times have you been married? .....

6. What was your age at first marriage…….

7. Are you working? (a) . Yes[ ] (b). No [ ]

8. If yes, what is the nature of your work?

(a). Farming [ ] (b). Business / petty Trading [ ] (c). Civil servant [ ] (d). Others (specify)_____

9. What is your highest level of formal education attainment?

(a). Primary [ ] (b). Secondary [ ]
(c). Degree [ ] (d). None [ ]

10. Has your husband attended any formal school? (a.) Yes [ ] (b.) No [ ]

11. If yes, what is his level of formal education? (a.) Primary education [ ] (b.) Secondary education [ ] (c.) Tertiary education [ ] (d.) Don‟t know [ ]

12. What is the main occupation of your husband? (a.) Farmer [ ] (b.) Daily labourer [ ] (c.) Government employee [ ] (d.) Business [ ]

13. Age of the youngest child…….

14. How do you always get information concerning antenatal and postnatal care? (a) Radio [ ] (b) TV [ ] (c)Print Media [ ] (d) Internet [ ] (e) None [ ]

SECTION B: VARIOUS TYPES OF ANTENATAL AND POST-NATAL SERVICES AVAILABLE TO WOMEN OF REPRODUCTIVE AGE

15. Is there any health care facility within the community?
(a.) Yes [ ] (b.) No [ ]

16. How far is the nearest healthcare facility from your house?..... kilometer (in hours/minutes) ……

17. How do you travel to this facility? (a) Trekking/ walking [ ] (b) Personal vehicle [ ] (c) Public vehicle [ ]

18. Does the facility provide services for pregnant women and the new? (a.) Yes [ ]
(b.) No [ ] (c.) Don't know [ ]

19. If yes, which of the following services does the facility provide to pregnant and nursing women as part of routine ANC services? (Tick as many as applied)

Antenatal Care Services

(a.) Iron supplementation [ ]
(b.) Folic acid supplementation [ ]
(c.) Intermittent preventive treatment (IPT) for malaria [ ]
(d.) Tetanus toxoid vaccination [ ]
(e.) Monitoring for hypertensive disorder of pregnancy [ ]

Prevention Of Mother-To-Child Transmission

(f.) HIV counselling and testing services to HIV positive pregnant women for PMTCT [ ]
(g.) HIV counselling and testing services to infants born to HIV positive pregnant women for PMTCT [ ]
(h.) ARV prophylaxis to HIV positive pregnant women for PMTCT [ ]
(I.) ARV prophylaxis to newborns of HIV positive pregnant women for PMTCT [ ]
(j.) Infant and young child feeding counselling for PMTCT [ ]
(k.)Nutritional counselling for HIV positive pregnant women and their infants for PMTCT [ ]

Obstetric and Newborn Care Services

(l.) Parenteral administration of antibiotics (IV or IM) [ ]
(m.) Parenteral administration of oxytocic (IV or IM) [ ]
(n.) Parenteral administration of anticonvulsant for hypertensive disorders of pregnancy (IV or IM) [ ]
(o.) Assisted vaginal delivery [ ]
(p.) Manual removal of placenta [ ]
(q.) Removal of retained products after delivery [ ]
(r.) Neonatal resuscitation [ ]
(s) Caesarean section [ ]
(t) Blood transfusion [ ]

20. Does this facility provide any of the following immunization services for the newborn or children under 5 years of age?
(a.) Routine measles immunization [ ]
(b.) Routine DPT-Hib+HepB immunization (pentavalent) [ ]
(c.) Routine polio immunization [ ]
(d.) BCG immunization [ ]

21. If Yes, Is the service provided in the…… (a) Facility only [ ] (b) Outreach only [ ] (c) Both [ ]

22.Which of the following health professionals did you see for your antenatal check-ups? (Cross ALL that apply) (a.) Midwife [ ] (b) Family doctor [ ] (c) Hospital doctor [ ] (d) Community Health Officer [ ] (e) I don't know[ ](f) Others (specify)……

Section C : Utilization of the existing antenatal/ postnatal health services

23. Did you register your pregnancy at the health centre? (a) Yes [ ] (b) No [ ]

24. Where did you go for your ANC and PNC checkups? (a) Primary Health Center [ ] (b) Government Hospital [ ] (c) Private clinic / hospital [ ]

25. If you go to Private clinic / hospital. Why?.....
……
……
……

26. Did you receive health check-up ANC and PNC during your last pregnancy and delivery? (a) Yes [ ] (b) No [ ]

27. If no, Why? .....
……
……
……

28. Did you receive the following services, at-least once, during your pregnancy check-ups?
(a) Tetanus injection on your arm [ ]
(b) Iron tablets / syrup [ ]
(c) Weight was checked [ ]
(d) Blood / Urine tests conducted [ ]
(e) Blood pressure examined [ ]
(f) Health education [ ]
(g) Family planning services [ ]
(h) Physical Examination [ ]

29. During your previous pregnancy, did you receive advice on :
(a) Complications / problems during pregnancy [ ]
(b) Place of delivery [ ]
(c) Nutrition during pregnancy [ ]
(d) Baby care [ ]

30a. Do you always go for Antenatal and post care services? (a) Yes [ ] (b) No [ ]
b) If no, why?
.....
.....
.....
.....

31. If, how many times in a week do you receive services at the health care centre?
(a) Every day of the week [ ]
(b) Once a week [ ]
(c) Twice a week [ ]
(d) Three times a week [ ]

32. Which of the following health problems did you developed during the last pregnancy/childbirth?
(a.) Bleeding during pregnancy [ ] (b.) Anaemia in pregnancy [ ]
(c.) Obstructed labour [ ] (d.) Prolonged labour [ ] (e.) Retained placenta [ ]
(f.) Mal presentation [ ] (g.) Still birth [ ] (i.) Intra-uterine foetal death [ ]
(j.) Others (specify)……..
……

33. Where was the problem managed?
(a.) At home [ ] (b.) At the TBA‟s place [ ] (c.)At the religious/prayer house [ ]
(d.) At the traditional healer's place [ ] (e.) At the hospital/clinic [ ]
f. Others (specify)……
……..

34. In your last pregnancy, did you gave birth in the hospital? (a) Yes [ ] (b) No [ ]

35. If no, Why? ……
……
……
……
……
……
35. Who conducted your delivery? (a) Health personnel/ Doctor [ ] (b)Midwife [ ] (c)Nurse [ ] (d) TBA [ ]

36. Have you ever been assisted through delivery without a presence of a skilled birth attendant (a) Yes [ ] (b) No [ ]

Section D: Social, Economic and Cultural factors that determine the Use and Non-Use of Antenatal and Post-Natal Health Services in Makarfi

37. What were the reasons for your visit to the health facility during pregnancy or after delivery? (Tick as many as applied)

(a.) I was sick [ ]
(b.) Health facility is near [ ]
(c.) Husband encouraged me [ ]
(d.) To know my health status [ ]
(e.) To know the health status of the foetus [ ]
(f.) They offer good service [ ]
(g.) Encouraged by neighbour [ ]
(h.) The service is free [ ]
(i.) Others (specify)……

38. Did you get attended to when you visited the facility? A. Yes [ ] b. No [ ]

39. Which of these are common features of the health care facilities and personnel? (Tick as many as applied)

(a.) The personnel are always available in the health care facility [ ]
(b.) The personnel are not adequate for the teaming pregnant and nursing mothers of the area [ ]
(c.) They are not adequately qualified to handle the cases of ante natal and post natal in the facility [ ]
(d.) The facility lacks adequate equipments to function effectively [ ]
(e.) There are no adequate drugs for pregnant and nursing mothers in the clinic [ ]
(f.) The personnel's good attitude always encourages pregnant and nursing mothers to attend [ ]
(g.) The personnel's poor attitude often affects pregnant and nursing mothers' attendance to the clinic [ ]
(h.) Others (specify)……..

40. Who decided the place of delivery? (a) Myself [ ] (b) My husband and me [ ] (c) My family members [ ]

41. Did your husband ever accompany you for ANC? (a.) Yes [ ] (b.) No [ ]

42. If No, Why?.....
……
……
……
…….

43. Have you ever gone for the ANC without your husband's consent? (a.) Yes [ ] (b.) No [ ]

44. If you did not attend the ANC and PNC during your last pregnancy, why? (Tick as many as applied)

(a.) The health facility is far [ ]
(b.) No health problem [ ]
(c.) Husband refused [ ]

(d.) I was too busy to attend [ ]
(e.) I don't know the importance [ ]
(f.) Afraid of the fee [ ]
(g.) Feel ashamed to attend [ ]
(h.) Poor attitude of health workers [ ]
(i.) No money in the house [ ]
(j.)Other reasons (please specify) ……..……

45. How much do you use to spend for transportation when attending facility for antenatal and postnatal services? ……

46. Is the modern antenatal and postnatal services free of charge? a. Yes ( ) b. No ( )

47. If no, how much do you use to spend for services when attending facility for antenatal and postnatal services? ……

48. Is your husband responsible for the cost of your modern antenatal and postnatal services? (a.)Yes ( ) (b.) No ( )

49. If no, does your source of income affords your modern antenatal and postnatal services ? (a.) Yes ( ) (b.) No ( )

50. Does what you are earning from your source of income encourages your modern antenatal and postnatal services? a. Yes ( ) b. No ( )

51. Do you agree religious affiliation influences utilization of antenatal and postnatal services? a. Yes ( ) b. No ( )

52. To what extent does religious affiliation influence mothers' utilization of antenatal and postnatal services?
(a) Very high [ ]
(b) High [ ]
(c) Poor [ ]
(d) Very poor [ ]

53. Among the following traditional beliefs, which one do you think most affects mothers' effective utilization of modern antenatal and postnatal services?
(a) Fear of exposing private part to other men than their husbands
(b) Fear of discouraging the use of hot water
(c) Fear of discouraging the use of traditional herbs
(d). Fear of health practitioners disgrace
(e) Others specify……

Section D: Various Measures that could be Introduced to Enhance Utilization of Antenatal and Postnatal Care in the Study Area

54. Which of the following measures do you think would help to enhance the utilization of antenatal and post natal care services in the area?
(a) Good health worker attitude [ ]
(b) Short waiting hours [ ]

(c) Availability of staff [ ]
(d) Flexibility of clinic schedules [ ]
(e) Male involvement initiative [ ]
(f) Free ANC and PNC services [ ]
(g) Public enlightenment [ ]
(h) Provision of modern facilities [ ]
(i) Provision of free mass transit for pregnant women and nursing to hospital [ ]

54. Are there any interventions in place to improve women's utilization of ANC and PNC services in Makarfi……..
…….
……
……

55. State what the government has done to ensure that pregnant women effectively access ANC and PNC service in the area……
……
……
……
……..

56. What are the measures put in place by community to enhance ANC and PNC services in the area……
……
……
……
……
……

APPENDIX B

INDEPTH INTERVIEW (IDI) GUIDE FOR HEALTH PRACTITIONERS

General characteristics of the informants

i. Age……..

ii. Sex…….

iii. Highest educational qualification……..

1. What types of antenatal and postnatal services are available for women of reproductive age in Makarfi L.G.A ?

Probe for:

- ✓ Type of Maternal health care services rendered by health facility
- ✓ Provision of emergency caesarean section and blood transfusion
- ✓ Availability of functional equipments for ANC and PNC care services
- ✓ Adequate and regular supply of consumables for ANC and PNC services

2. What is the level of utilization of the existing antenatal/ postnatal health services in the study area?

Probe for:

- ✓ Women's utilization of ANC and PNC services
- ✓ The most sort maternal health services by women
- ✓ Pattern of utilization of ANC and PNC services by women
- ✓ Perceived quality of services offered compared to national guideline

Characteristics of personnel providing ANC and PNC services
Probe for:

- ✓ Category of staff providing ANC and PNC services
- ✓ Adequacy and quality of personnel for ANC and PNC services
- ✓ Regularity of training received by personnel
- ✓ In what area of ANC and PNC services training was received

3. What are the social, economic and cultural factors that determine the use and non-use of antenatal and post-natal health services in Makarfi?

Probe for:

- ✓ Lack of available resources
- ✓ Cost of the services
- ✓ Spousal financial support
- ✓ Cost of transportation

- ✓ Unemployment
- ✓ Socio-economic status of women in the family
- ✓ Community perception towards antenatal and postnatal.
- ✓ Perceived benefit of antenatal and postnatal.
- ✓ Perceived negative consequences.
- ✓ Spousal acceptance and support.
- ✓ Relationship between medical personnel and clients
- ✓ The standard of antenatal care centers in the area
- ✓ The quality of services provided
- ✓ Availability of medical personnel
- ✓ Health facilities in the centers
- ✓ Availability of drugs
- ✓ Cost of antenatal and postnatal services in the area
- ✓

4. What are the various measures that could be introduced to enhance utilization of antenatal and postnatal care in the study area?

Probe for:

- ✓ Specific areas requiring improvement
- ✓ Respondents‟ opinion on ways of improving service delivery and utilization

APPENDIX C

In-depth Interview Guide for community Leaders and Traditional Birth Attendants (TBAs)

General characteristics of the informants

i. Age……..

ii. Sex…….

iii. Highest educational qualification……..

2. What types of antenatal and postnatal services are available for women of reproductive age in Makarfi L.G.A ?

Probe for:

- ✓ Type of Maternal health care services rendered by health facility
- ✓ Provision of emergency caesarean section and blood transfusion
- ✓ Availability of functional equipments for ANC and PNC care services
- ✓ Adequate and regular supply of consumables for ANC and PNC services

3. What is the level of utilization of the existing antenatal/ postnatal health services in the study area?

Probe for:

- ✓ Women's utilization of ANC and PNC services
- ✓ The most sort maternal health services by women
- ✓ Pattern of utilization of ANC and PNC services by women
- ✓ Perceived quality of services offered compared to national guideline

Characteristics of personnel providing ANC and PNC services

Probe for:

- ✓ Category of staff providing ANC and PNC services
- ✓ Adequacy and quality of personnel for ANC and PNC services
- ✓ Regularity of training received by personnel
- ✓ In what area of ANC and PNC services training was received

3. How do socio-economic and cultural factors affect the utilization of antenatal and postnatal services in Makarfi L.G. A.

Probe for

- ✓ Exposing private part to other men then their husbands
- ✓ Modern antenatal and postnatal services are too expensive
- ✓ Lack of secrecy at the point of delivery

- ✓ Inability to observe valued cultural practices
- ✓ Lack of closeness as traditional health personnel
- ✓ Lack of able and capable health practitioners
- ✓ Illiteracy /ignorance
- ✓ Lack of value to health status
- ✓ Insufficient enlightenment campaign
- ✓ I don't care attitude
- ✓ Lack of available resources
- ✓ Cost of the services
- ✓ Spousal financial support
- ✓ Cost of transportation
- ✓ Unemployment
- ✓ Lack of proper doctor-patient relationship
- ✓ Communication gap between mothers and health personnel
- ✓ Absence of female personnel responsible for antenatal and postnatal services
- ✓ Aggressive attitude of health personnel
- ✓ Lack of emotional sympathy from health personnel

4. What are the various measures that could be introduced to enhance utilization of antenatal and postnatal care in the study area?

Probe for:

- ✓ Specific areas requiring improvement
- ✓ Respondents" opinion on ways of improving service delivery and utilization