ANTENATAL HEALTH SEEKING BEHAVIOUR AMONG PREGNANT WOMEN IN URBAN SLUMS OF IBADAN SOUTH EAST LOCAL GOVERNMENT AREA, NIGERIA

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ABSTRACT

Antenatal Care (ANC) service provides pregnant women the opportunity to receive proper maternal health care services during pregnancy. Under-utilisation of these services, especially among urban slum population is one of the reasons for high maternal mortality in Nigeria. However, studies focusing on women attending ANC services have not specifically considered health seeking behaviour among pregnant women living in urban slums. This study was designed to assess antenatal care health seeking behaviour among pregnant women living in urban slums of Ibadan South-East Local Government Area (IBSELGA), Oyo State, Nigeria.

This study was cross-sectional in design with a four-stage random sampling technique which was used to select 540 respondents from 7 wards, 14 slums communities which were selected using simple random sampling and 540 respondents in the LGA. A pretested semi-structured interviewer-administered questionnaire which consisted of 28-point knowledge scale, questions relating to ANC health seeking behaviours and factors influencing utilisation of ANC was used for data collection. Knowledge score of ≤14 and >14 were rated as poor and good respectively. Six Focus Group Discussions (FGDs) were used to collect qualitative data. Quantitative data were analysed using descriptive statistics, Chi-square and logistic regression tests at 5% level of significance, while qualitative data were analysed using thematic approach.

Age of respondents was 27.4±6.0 years, 96.3% were Yoruba and 64.7% of the respondents Muslims. Majority (72.6%), were married, 20.2% co-habiting and 7.2% single. Many (69.8%) had been previously pregnant. Most women (54.1%) started ANC in their second trimester, only 20.0% in their first trimester and 8.3% in the last trimester, while 17.6% had not started ANC at all. Knowledge score of respondents was 14.7±5.0, and 59.1% of the respondents had good knowledge of the various components of antenatal care services. Reasons for antenatal care registration included perceived health benefits (88.5%), reassurance of n normal pregnancy (86.6%) prevention of illness in pregnancy (74.7%) and vaccination (64.2%). Married respondents were almost twice likely to have registered for antenatal care compared

to those that were single or co-habiting (OR: 1.8. C.I:1.0-3.4). Majority of the respondents (50.9%) had a monthly income of less than ₦10,000 and 11.9% had no income at all were less likely to have registered for antenatal care compared to those (37.2%) who had a monthly income of ₦10,000 and above (OR: 0.4, C.I:0.2-0.8). Respondents with poor knowledge of the components of antenatal care were less likely to seek for antenatal care compared with those who had good knowledge (OR:0.5,C.I:0.3-0.8). The FGD revealed that many pregnant women were knowledgeable about the benefits of ANC but also complained of lack of funds and time as major reasons why pregnant women may not seek ANC services.

Antenatal Care health seeking behaviour as assessed by utilisation was relatively fair among pregnant women living in the urban slums of IBSELGA. Therefore, ANC health seeking behaviour among urban slum population can be improved by health education on the importance of the utilization of ANC services, social support initiatives and poverty alleviation programmes through community-based strategies.

Keywords: Pregnant Women, Health seeking behaviour, Urban slums, Antenatal care.
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DEDICATION

I dedicate this work to God Almighty, for seeing me through the MPH programme. I know that if it wasn't for God, I wouldn't have come this far.

CERTIFICATION

I certify that this study was carried out by Madam Ugbede OMAYE in the Department of Health Promotion and Education, Faculty of Public Health, College of Medicine, University of Ibadan, Nigeria, under my supervision.

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LIST OF ACRONYMS

ANC	Antenatal Care
UN	United Nations
WHO	World Health Organization
UI	University of Ibadan
UNICEF	United Nation Children Fund
UNFPA	United Nations Population Fund
TBA	Traditional Birth Attendant
MMR	Maternal Mortality Ratio
MDGs	Millennium Development Goals
NDHS	National Demography Health Survey
FMOH	Federal Ministry of Health
STI	Sexually Transmitted Infection
MNH	Maternal and Neonatal Health

CHAPTER ONE

INTRODUCTION

1.1 Background to the study

Pregnancy and childbirth are distinctive events in a woman's life. But during this period she is more vulnerable to disease and death. Every day, about 1,200 women die from pregnancy or childbirth related complications (WHO, World Bank, UNICEF and UNFPA, 2010) while 520,000 maternal deaths occur annually, with 99% of these occurring in developing countries. Typically, these women are poor, uneducated and living in rural area or urban slums (UNICEF 2010). According to NARIIS Report (2007), Ante Natal Care (ANC) is generally mostly sought from government hospitals: 71% of women who gave birth within the last 5 years preceding the survey seeking ANC from government hospitals followed by private hospitals (22%) and TBAs (<1%). The proportion that received ANC also increased generally with age, although women in the 40-49 years age group had lower proportion than those in 25-29 years age group.

Most pregnant women are usually vulnerable to several health problems, which if not promptly managed, could lead to maternal morbidity and mortality, poor pregnancy outcome, such as loss of baby. Hence, women are expected to seek ANC so as to maintain good physical, mental, social, and emotional health during pregnancy and also for early detection and prompt treatment of high risk conditions that would endanger the life of mother and baby (Ezeamo, 2000). The primary aim of antenatal care is to achieve, at the end of pregnancy, a healthy mother as well as healthy baby (Park 2007). Antenatal care and services often presents the first contact opportunities for a pregnant woman to connect with health services, thus offering an entry point for integrated care, promoting healthy home practices, influencing care-seeking behaviours and linking women with pregnancy complications to a referral system; thus impacting positively on maternal and fetal health (Bulatao and Ross, 2000).

Under-utilization of antenatal care and services is one major public health problem in Nigeria (Dairo and Owoyokun, 2010), with maternal death and mortality ratio remaining the highest in Sub-Saharan Africa and the country also has one of the highest Maternal and Neonatal morbidity and mortality rates in the world (NARHS, 2007). In a study conducted by Dairo and Owoyokun (2010), it was documented that antenatal care and services use in Nigeria is still low and the low utilization of antenatal varies from region to region.

Antenatal care coverage has increased globally (Population Action Int., 2007). Presently, 71% of women worldwide receive any antenatal care: more than 95% of pregnant women in industrialized countries have access to antenatal care services, 69% of pregnant women in sub-Saharan Africa have at least one ANC visit; more than in South Asia, which is 54% (WHO, 2005). Despite the global increase in ANC coverage rates, these rates remain notably low in Africa and parts of Asia (Population Action Int. 2007).

Variations in ANC exist largely in Africa. In Eastern and Southern Africa,71% of women receive antenatal care at least once during their pregnancy. In most sub Saharan African countries, except Ethiopia and Somalia which continue to lag behind, at least two third ($2/3^{rd}$) of women have access to basic antenatal care in every country while in West and Central Africa however, about 67% of women receive ANC at least once. These proportions mask the wide variations in coverage between and within countries in Africa. For example, an estimated 39% of women in Chad receive ANC at least once compared to 99% in Cape Verde and only 44% of women in the region receive the recommended minimum of 4 ANC visits. The widest differential is in Burkina Faso where 85% of women receive at least 1 ANC visit but only 18% receive minimum of 4 or more visits (UNICEF, 2009). These trends therefore, indicate slower progress in Sub-Saharan Africa than in other regions, with an increase in coverage of only 4% during the past decade (Ngomane and Mulaudzi, 2010). A comparable disparity also exists between urban, rural and urban slums women.

In urban slums, poor hygiene and overcrowding, lack of basic amenities (such as water and sanitation), and low availability and use of formal health services including maternity care

such as antenatal care and services, make women highly vulnerable (United Nations, 2004). This study therefore was aimed at identifying the antenatal health care seeking behaviour among pregnant women in urbanslum of Ibadan South East local government area of Oyo State using the health belief model.

1.2 Statement of the Problem

Globally, a woman dies of pregnancy related causes and over twenty others suffer pregnancy related morbidities every minute (UNICEF, 2009). For every woman who dies in childbirth, another 20-50 survive but suffer devastating injuries such as obstetric fistula (Engender Health, 2012). In Africa, innternal mortality is one of the most neglected problems and little progress has been made in reducing the Maternal Mortality Ratio (MMR) (UNICEF, 2008). According to WHO/UNICEF/UNFPA estimates, the country with the highest estimated number of maternal deaths is India (110,000), followed by Ethiopia (46,000), Nigeria (45,000), Indonesia (22,000), Bangladesh (20,000), Democratic Republic of Congo (20,000), China (13,000), Kenya (13,000), Sudan (13,000), Tanzania (13,000), Pakistan (10,000) and Uganda (10,000). All of these aforementioned twelve countries account for 65% of all maternal deaths. These very high ratio of maternal deaths as well as perinatal death may be due to traditional home birth practice which is not only unhygienic but also life threatening in case of emergency.

The rapidly growing population that started in the second half of the twentieth century in Africa's Sub-Saharan has evolved into unequaled urbanization and an increasing proportion of urban dwellers living in slums and shanty towns, thereby, making it essential to pay greater attention to the health problems of the urban slums (Fosto, Ezeh, and Oronje, 2008). According to the UN inter-agency estimates, Sub-Saharan Africa accounts for nearly half (252,000) of all maternal deaths in the world and has by far the highest maternal mortality ratios and lifetime risk of maternal death. Of the 10 countries that account for two thirds of maternal deaths in the world, five are in Sub-Saharan Africa. They are: Niger, Nigeria, United Republic of Tanzania, Democratic Republic of the Congo and Ethiopia. All of these

five African countries accounted for 26% of the total estimated death worldwide in 2005(UNICEF, 2008).

Complications of pregnancy and childbirth remain the leading cause of death and disability among women of reproductive age in developing countries today. One in five maternal death occurs in three Sub-Saharan Africa countries: Democratic Republic of Congo (DRC), Niger and Nigeria, with Nigeria alone having one in nine deaths. These three countries all together account for two-third of all maternal death in Sub-Saharan Africa (UNICEF, 2009). Nigeria contributes 10% of these deaths - deaths which are unnecessary and largely preventable through the implementatioo of several simple and cost effective strategies (State of the World's Children, 2009). About 15% of all pregnant women develop obstetric complications in the form of haemorrhage, pre-eclampsia and eclampsia, obstructed labour, sepsis, ectopic pregnancy etc (Meyer, Lobis and Dakkak, 2004). As the obstetric complications cannot be predicted and prevented, all pregnant women need access to good quality antenatal care.

Antenatal period offers opportunities to reach out to pregnant women requiring intervention that may be vital for their health, their wellbeing and that of their infants. It also provides a route to ensure that pregnant women deliver with the assistance of a skilled health provider (World Health Organization, 2003). It is however sad to note that many women do not utilize ANC services. According to Melgud et al. (2009), most women don't make use of antenatal care and services because they believed that pregnancy being a natural phenomenon does not need any special care, a belief very common among pregnant women in India where nearly 64% of women don't utilize antenatal services because they consider it unnecessary. Belief systems play a major role in the health-care-seeking behaviour of individuals (Shaikh and Hatcher, 2005), which include not attending antenatal clinic. A typical example is such that women attend mission houses which could contribute to underutilization of antenatal care and services in urban slums, and it has also been linked to increase in maternal mortality rates (Dairo and Owoyokun, 2010). These beliefs and practices potentially impacts on non utilization or underutilization of antenatal care and services.

Maternal and perinatal mortality and morbidity levels are key indicators of public health in countries (World Health Organization, 2000). In like manner, the percentage of women having antenatal care during pregnancy is also one of the indicators of Millennium Development Goals (MDGs) (WHO, 2003). With respect to MDG 5 which is to improve maternal health, many countries including Nigeria have made a commitment to reduce the maternal mortality ratio by three quarters between 1990 and 2015 to 250 per 100,000 live births and also achieving universal access to reproductive health care and services by 2015(MDG report, 2010). Despite the nation's commitment to this, high maternal mortality ratio in Nigeria from preventable causes still persists. The National Demography Health Survey (NDHS 2013) and WHO Health Statistic (2011) respectively estimated that 545 maternal deaths per 100,000 live births and 840 deaths per 100,000 live births occur in Nigeria, showing that between 1990 and 2005 the maternal mortality ratio declined by only 5%. The NDHS (2013) also stated that three-fifth (61%) of mothers reported consulting a skilled health provider at least once for antenatal care. Similarly, the FMOH (2007) documented 82.8% for urban women and 54.1% for rural women.

Although access to ANC services alone do not indicate the quality of care pregnant women receive, inadequate access and utilization has been implicated in the continued prevalence and incidence of high maternal morbidity and mortality. Safety of mother and children, even after the pregnancy period, depends highly on delivery care during pregnancy. Insufficient maternal care during pregnancy and delivery period is largely responsible for the 515, 000 annual maternal deaths and the estimated 8 million infant deaths that occur either just before or during delivery or in the first week of life. Regular contact with a doctor, nurse or midwife during pregnancy allows health personnel to manage the pregnancy; immunize the mother to be against tetanus to protect her and her infant; promote good nutrition, hygiene and rest; and detect potential complications making it advisable to give birth in a health facility equipped to handle high risk deliveries and aftercare (Hussain and Hoque, 2005). For example, Urban Health Resource Centre (2006) in India established that it is unfortunate that in urban slums the condition of maternal health with regard to antenatal care during pregnancy is worse in comparison to non-slum population as just 54% of pregnant women in slums have at least three antenatal visits in comparison to 83% in non-poor urban areas (UHRC, 2006).

1.3 Justification of the study

Safe motherhood, by providing hospital delivery care to the poor and the slum women will generate secondary health benefits for children, other family members, neighbours and the future generation. Thus, it can ensure a good reproductive health care and a good health status of mother and children, which is very important for the development of a country. Based on these foregoing benefits and the previously identified inadequate utilization of ANC services among slum women, it was pertinent to understand the ANC health seeking behaviour of pregnant women in urban slums vis a vis their knowledge, beliefs, pattern of utilization of ANC services and factors influencing their utilization of the services.

Hence, this study was conducted among pregnant women in urban slums of Ibadan South East LGA and the results obtained provided information on the proportion of women living in slums in the LGA who had access to and who utilizes ANC services as well as reasons for ANC services utilization or non-utilization. The results of this study also provided useful information that can be used by policy makers to develop programmes which will help in reducing maternal mortality ratio in these communities and to achieve the MDG 5. Lastly, the study provides an insight into the impact of other related MDGs on achieving MDG 5 as well as associated factors in urban slum that can impact the achievement of other related MDGs.

1.4 Research Questions

The study provided answers to the following research questions:

1. What is the level of knowledge of antenatal care services among pregnant urban slum women in Ibadan South-East Local Government Area (IBSELGA)?
2. What are the beliefs of pregnant women about antenatal care services utilization in urban slums of IBSELGA?
3. What are the health seeking practices for antenatal care services among pregnant women living in urban slums of IBSELGA?
4. What factors influence utilization of antenatal care services among pregnant women in urban-slums of IBSELGA?

1.5 Objectives

1.5.1 Broad objective

The broad objective of this study was to explore the antenatal care health seeking behaviour among pregnant women in urban slums of Ibadan South East local Government Area, Nigeria

1.5.2 Specific objectives

The specific objectives were to:

1. Assess the level of knowledge of pregnant women in urban slums on antenatal care services in IBSELGA.
2. Identify the beliefs relating to antenatal care utilization among pregnant women in urban-slums of IBSELGA.
3. Determine the health seeking practices for antenatal care among pregnant women in urban slums of IBSELGA.
4. Identify the factors influencing the utilization of antenatal care services by pregnant urban slum women in IBSELGA.

1.6 Hypotheses

1. There is no association between socio-demographic characteristics and knowledge on antenatal care services among pregnant women in urban slums of IBSELGA.
2. There is no association between socio-demographic characteristics and beliefs about ANC services among pregnant women in urbim slums of IBSELGA.
3. There is no association between socio-demographic characteristics and utilization of antenatal care services among pregnant women in urban slums of IBSELGA.
4. There is no association between knowledge of the pregnant women and their utilization o fantenatal care services.
5. There is no association between knowledge of the pregnant women and their beliefs about antenatal care services,
6. There is no association between beliefs of the pregnant women and their utilization of antenatal care services.

7. There is no association between number of children born to pregnant women in urban slums and utilization of antenatal care and services.

CHAPTER TWO

LITERATURE REVIEW

Review of Concepts

2.1 Antenatal Care

Antenatal care is the care that a woman receives during pregnancy from skilled health personnel which helps to ensure healthy outcomes for women and newborns (WHO/UNICEF, 2003). Antenatal care is the key entry point for a pregnant woman to receive a broad range of health promotion and preventive health services, including nutritional support and prevention and treatment of anemia; preventive, detection and treatment of malaria, tubercuiosis, and sexually transmitted infection STIs/HIV/AIDS (particularly prevention of HIV transmission from mother to child) and tetanus toxiod immunization. The World Health Organization in 1996 recommended four focused antenatal visits to enhance the quality of care - rather than the quantity of care – thereby reducing maternal and child mortality and morbidity (WHO, 2007).

Antenatal care is an opportunity to promote the benefit of skilled attendant at birth and to encourage women to seek postpartum care for themselves and their newborns. It is also an ideal time to counsel women about the benefit of child spacing. Finally, antenatal care is an essential link in the household-to-hospital care continuum (WHO, UNICEF 2003). Antenatal care is named as one of the four pillars of the safe motherhood initiative. Although its relative contibution to maternal health care has been under debate. its importance cannot be denied

2.2 History of Antenatal Care

Antenatal care began in Paris in the year 1788. It was initially an in- patient care from 36 weeks till delivery. In the United Kingdom, the concept of antenatal care began in Edinburgh in 1902. when bed was allocated for that purpose. Ballantyne started the first antenatal clinic in Britain to screen for pre-eclampsia and prevent preterm labour. Around the same time

across the Atlantic, instructive Nursing Association in Boston started to make house-calls on all registered pregnant women to improve their health, an idea which was soon embraced by the American physician, and routine antenatal care became an established practice that has now spread all over the world (Gunilla et al., 1998).

When the first programme for antenatal care were designed in Europe in the first decades of the 19th century, they were directed mainly towards women in socially difficult living conditions, and had as a definite objective, which was the improvement of maternal and perinatal outcome for the least privileged groups. Gradually, the objectives of the programme included more specific screening procedures to detect defined medical problems in the whole pregnant population (Gunilla et al., 1998).

2.3 Definition and characteristics of urban slums

According to the United Nations (2004), urban slum is described as an area with poor hygiene which is overcrowded, lack of basic amenities (such as water and sanitation), and low availability and use of formal health services including maternity care such as antenatal care and services, hence making women highly vulnerable. It could be defined as an unplanned community characterised by poor environmental sanitation, overcrowding and other anti-social vices.

In the past few decades, rapid urbanisation, growing urban slums in developing countries, has raised concerns on public health issues, such as overcrowding, lack of safe drinking water, sanitation and deprivation in multiple domains (UN, 2003; Madhiwalla, 2007), which in turn exposes a vulnerable age group - like pregnant women - to high risks of infectious diseases (Hughart, Silimperi and Khatun, 1992), malnutrition (Chuudhary, Sharma and Agarwal, 2002) and impaired cognitive development (Pryer et al 2002) in the early formative years of life.

2.4 The Maternal and Neonatal Mortality situation with focus on Nigeria

It has been estimated that 25% of maternal deaths occur during pregnancy, with variability between countries depending on the prevalence of unsafe abortion, violence, and disease in

the area. Between a third and a half of maternal deaths are due to causes such as hypertension (pre-eclampsia and eclampsia) and antepartum haemorrhage, which are directly related to inadequate care during pregnancy (UNICEF 2010). Of the 210 million women who become pregnant each year, 30 million or about 15% develop complications which are fatal in 1.7% of cases. The wide disparity in maternal health care indicators might explain the wide difference in maternal mortality ratio between the developed and developing countries. (AbouZahr and Wardlaw, 2004).

It has also been a challenge to assess the extent of progress towards the MDG 5 target of improving maternal health; due to lack of reliable data especially in developing countries (NDHS, 2013). However, the United Nations reported that worldwide, almost 300,000 women died in 2013 from causes related to pregnancy and childbirth. Despite these deaths which is mostly preventable and the need to do more to provide care to pregnant women, the United Nations noted a little improvement in maternal health indices; globally, the Maternal Mortality Ratio (MMR) dropped by 45 percent between 1990 and 2013, from 380 to 210 deaths per 100,000 live births (United Nations (UN), 2014).

Notwithstanding the progress in all world regions, the MMR in developing regions - 230 maternal deaths per 100,000 live births in 2013 - was fourteen times higher than that of developed regions, which recorded only 16 maternal deaths per 100,000 live births in 2013. Sub-Saharan Africa had the highest MMR of developing regions, with 510 deaths per 100,000 live births, followed by Southern Asia, Oceania and the Caribbean, each registering 190 maternal deaths per 100,000 live births, and then by South-Eastern Asia. In other developing regions, maternal death has become a rare event nowadays, with less than 100 deaths for every 100,000 live births. Most of the maternal deaths in 2013 took place in Sub-Saharan Africa (62%) and Southern Asia (24%). There remain extreme differences in maternal mortality among countries. For example, Sierra Leone has the highest maternal mortality rate, with 1,100 maternal deaths per 100,000 live births, while Belarus has a rate of 1 maternal death per 100,000 live births. Almost one-third of all global maternal deaths are

concentrated in two populous countries: India, with an estimated 50,000 maternal deaths (17%), and Nigeria, with an estimated 40,000 maternal deaths (14%) (UN, 2014).

In a study conducted in six West Africnn countries, a third of all pregnant women experienced illness during pregnancy, of which three percent required hospitalization (WHO, 2005). Certain pre-existing conditions became more severe during pregnancy. Malaria, HIV/AIDS, anaemia and malnutrition were associated with increased maternal and newborn complications as well as death where the prevalence of these conditions is high. New evidence suggests that women who have been subjected to female genital mutilation are significantly more likely to have complications during childbirth, so these women need to be identified during ANC. Gender-based violence and exposure to workplace hazards are additional and often underestimated public health problems (Ornella et al 2012).

In Sub-Saharan Africa, an estimated 900,000 babies die as stillbirths during the last twelve weeks of pregnancy. It is estimated that babies who die before the onset of labour, or antepartum stillbirths, account for two-thirds of all stillbirths in countries where the mortality rate is greater than 22 per 1,000 births – nearly all African countries (WHO, 2005). Ante partum stillbirths have a number of causes, including maternal infections – notably syphilis and pregnancy complications. Newborns are affected by problems during pregnancy including preterm birth and restricted fetal growth, as well as other factors affecting the baby's development such as congenital infections and fetal alcohol syndrome (WHO, 2005).

The social, family, and community context and beliefs affect health during pregnancy either positively or negatively. Some cultures promote special foods and rest for pregnant women, but in others, pregnancy is not to be acknowledged. In these cases, women continue to work hard, and nutritional taboos may deprive them of essential nutrients, adding to nutritional deficiencies, particularly iron, protein, and certain vitamins (Ornella et al 2012)

Nigeria is Africa's most populous country, with 148 million inhabitants in 2007, 25 million of them under age five. With almost 6 million births in 2007 and a total fertility rate of 5.4, Nigeria's population growth continues to be rapid in absolute terms. According to the 2007

World Development Indicators, published by the World Bank, more than 70 per cent of Nigerians live on less than US$1 per day, impairing their ability to afford health care. Poverty, demographic pressures and insufficient investment in public health care are some of the factors contributing to high levels and ratios of maternal and neonatal mortality (UNICEF 2009).

The latest United Nations inter-agency estimates places the 2005 average national maternal mortality ratio at 1,100 deaths per 100,000 live births and the lifetime risk of maternal death at 1 in 18. When viewed in global terms, the burden of maternal death is brought into stark reality: approximately 1 in every 9 maternal deaths occurs in Nigeria alone. The women who survive pregnancy and childbirth may face compromised health; studies suggest that between 100,000 and 1 million women in Nigeria may be suffering from obstetric fistula. Neonatal deaths in 2004 stood at 249,000, according to the latest World Health Organization figures, with 76 per cent taking place in the early neonatal period (first week of life)(WHO 2012)

Inadequate health facilities, lack of transportation to institutional care, inability to pay for services and resistance among some populations to modern health care are key factors behind the country's high rates of maternal, newborn and child mortality and morbidity. There are significant disparities between and within States. Low levels of education, especially among women, and discriminatory cultural attitudes and practices are barriers to reducing high maternal mortality rates (UNICEF 2009). A study at the Jos University Teaching Hospital in the north-central region shows that nearly three quarters of maternal deaths in 2005 occurred among illiterate women and the mortality rate among women who did not receive antenatal care was about 20 times higher than among those who did (UNICEF 2009)

Given these complex realities, developing strategies to accelerate progress on maternal and newborn health remains a considerable challenge. In 2007, Nigeria began to implement a national Integrated Maternal, Newborn and Child Health (IMNCH) strategy to fast-track high-impact intervention packages that include nutritional supplements, immunization, insecticide-treated mosquito nets and prevention of mother-to-child transmission of HIV

(UNICEF 2010). The IMNCH strategy, if implemented in full and on time, can markedly improve maternal and newborn health. Together with this package, the country has embarked on a National Health Insurance Scheme, which seeks to integrate the public and private health sectors to make health care more affordable for Nigerians.

2.5 Activities carried out during Antenatal care

The series of activities embedded in the ANC include:

- Confirmation of the period of gestation
- Detailed history of present, past and family illness
- Routine measurement of height, weight, blood pressure, oedema feet, fingers and face
- Determination of haemoglobin level at booking, 28 and 36 weeks
- Urine examination for proteins, sugar, and bacteria at booking, 28 and 36 weeks
- Determination of Blood group, genotype and Rhesus factor
- Determination of blood sugar level and other investigation if indicated
- Immunization against tetanus
- Health promotion and education concerning proper nutrition, hygiene and infection prevention, early detection of danger signs, health seeking behaviour, infant care and feeding and postpartum family planning
- Routine presumptive treatment of malaria (IPPT)
- Iron and folic acid supplementation
- Screening for and management of syphilis and HIV (WHO, 2009).

2.6 Benefits of ANC

Pregnancy is a crucial time to promote healthy behaviours and parenting skills. The antenatal period clearly presents opportunities for reaching pregnant women with a number of interventions that may be vital to their health and well-being and that of their infants. Antenatal care and services during pregnancy is important for the health of the mother and the development of the unborn baby (WHO, 2009). Good ANC links the woman and her family with the formal health system, increases the chance of using a skilled attendant at birth and contributes to good health through the life cycle. Inadequate care during this time

breaks a critical link in the continuum of care, and affects both women and babies (WHO, 2005; UNICEF 2006).

Antenatal care helps to ensure healthy outcomes for women and newborns. Focused antenatal care recognizes that every pregnant woman is at risk of complications, and therefore all women should receive the same basic care and monitoring for complications. It therefore promotes interventions that address the most prevalent health issues that affect mothers and newborns. ANC help women to maintain normal pregnancy through targeted assessment to ensure normal progress of the childbearing cycle and newborn period, and to facilitate the early detection of complications, chronic conditions and other problems/ potential problems that will affect the pregnancy.

Antenatal Care also help in individual care to help maintain normal progress, including preventive measures, supportive care, health messages and counselling (including empowerment of women and families for effective self-care), and birth preparedness and complication readiness planning (Brief, 2004). This is a time for providers and women to talk about important issues affecting the woman's health, her pregnancy, and her plans for childbirth and the new-born period. Discussions can include how to recognize danger signs, what to do, and where to get help, good nutrition and its importance to the health of the mother and baby, good hygiene and infection prevention practices, risks of using tobacco, alcohol, medications, local drugs, and traditional remedies, rest and avoidance of heavy physical work, benefits of child spacing to mother and child, benefits (to mother and baby) of exclusive breastfeeding, protection against HIV and other sexually transmitted diseases. The antenatal period also provides an opportunity to supply information on birth spacing, which is recognized as an important factor in improving infant survival.

The Maternal and Neonatal Health Programme sees antenatal care as a key platform for promoting safer health practices, preventing and treating malaria, preventing mother-to-child transmission of HIV, and preventing and treating other diseases such as syphilis, as well as building a trusting relationship with a skilled provider. Preventive interventions provided for all pregnant women included Immunization against tetanus with tetanus toxoid, reduction of

iron deficiency anaemia through iron and folate supplementation. Prevention and treatment of malaria are also important interventions to reduce anemia.

2.7 Knowledge of ANC

Overall, women's awareness of life-threatening complications during pregnancy, delivery and the postpartum period was quite low, although it varied considerably according to type of complication. Fifty-six percent of women cited tetanus and 49% cited prolonged or obstructed labor as potentially life-threatening conditions, while smaller proportions mentioned retained placenta (38%) or malpresentation of the foetus (25%). Although convulsions and excessive bleeding account for more than half of all maternal deaths in Bangladesh,(NIPORT,2001) only 26% and 18% of women, respectively, cited these complications. In all, 89% of surveyed women were able to name at least one obstetric complication, and 42% could name three or more (NIPORT,2001).

Lack of sufficient knowledge about ANC was noted in the study conducted by Ye, Yoshida, Harun-Or-Rashid and Sakamoto (2010). The authors conducted a cross-sectional study using two-stage cluster sampling at 24 selected villages in the Kham District among 310 married women of reproductive age, who had at least one child and had delivered the last child within two years from the period of data collection. Knowledge was measured using 15 questions divided into two components: complications that occurred during pregnancy (5 questions) and benefits of ANC (10 questions). Respondents' sources of information about ANC were village health volunteers/traditional birth attendants (76.6%), health personnel (48.6%), friends (42.9%), community leaders (36.0%), mass media (33.7%), mother (10.3%) and husband (7.3%). Majority (73.9%) of the women lacked sufficient knowledge of ANC despite the high level of awareness.

~~Akanbiemu,~~ Manuwa-Olumide, Fagbamigbe and Adebowale (2013) conducted a community-based study among women of reproductive age (15-49 years) who had at least a baby delivery in the 5 years prior the survey or currently pregnant in selected rural and semi-urban communities in Okitipupa LGA, Ondo State. The authors measured knowledge based

on the following 8 parameters: Assessment of risk in pregnancy; Birth preparedness; Physical examination; Urine examination; Blood pressure measurement; Detecting foetal and maternal abnormalities; Drugs for fetal and maternal wellbeing and Immunization. Respondents were scored based on their ability to correctly state any of the above parameters as service rendered in ANC visit. Results revealed that most (98.0%) of the respondents were aware of the term ANC while almost half (45.9%) of the respondents got the information on ANC from health workers. The mean knowledge score was 6.0±1.2 and ranged from 0-8. Those with scores less than the mean were classified as having poor knowledge and based on this; majority of them had good knowledge on the purposes and services rendered at ANC.

Multivariate analysis of Akanbiemu et al's (2013) findings revealed that respondents' knowledge was significantly influenced by respondents' type of occupation, number of previous pregnancy, religion practiced, husband's occupation and educational attainment. Respondents who were civil servants were two and half times more likely to have a good knowledge of ANC than their counterparts who were traders. A surprising result from the authors' study was that respondents whose husbands had no education were about eleven times more likely to have good knowledge than those whose husbands had tertiary education. Also, respondents whose husbands were civil servants and farmers were about twice more likely and thrice less likely respectively to have good knowledge of ANC. Preference to use either public health facilities or any other type was not significantly associated with knowledge of ANC.

In Indonesia, it was demonstrated that improvement in ANC knowledge was significantly influenced by respondents' levels of education (Nuraini and Parker, 2005). Radio and television access exposure were also shown to influence ANC as found in a study conducted in Bangladesh (Moshiur, 2008).

To a great extent, knowledge determines the level of practice of Antenatal seeking behaviour. This was shown by a study in Kolkata, Indian where nearly two-third of the study group had either good or excellent knowledge of maternal health services. The study further showed

that almost two thirds (64.3%) of the women studied utilized ANC facilities because of the good knowledge demonstrated by them (Banerjee, 2003). On the other hand, knowledge about antenatal care was found to be better among women who utilized antenatal care compared to women who did not receive (Nisar and White, 2008). The implication of these studies is that knowledge improves utilization of ANC services and vice versa.

2.8 Beliefs about utilisation of antenatal care services

A Nicaragua study found that women's utilization of prenatal and delivery services is influenced by communal and individual perception regarding maternal care (Lubbock, 2008). Women's belief that facility-based care provides a safe environment for receiving care evolved from the quality of care they received and delivery outcome from previous pregnancies. Many women who experienced complications from previous birth or low parity had an increased fear and awareness of the risk involved in failing to seek care and thus sought care to avoid complications (Lubbock, 2008).

Akanbiemu et al. (2013) in their study found that almost all the respondents (98.5%) believed that ANC improves their health and that of their unborn child while 94.4% believed that ANC improves pregnancy outcome. A greater proportion (96.2%) of the respondents believed that ANC prevents delivery complications. About 53.5% of the respondents disagree that ANC is not very useful to multiparous women. However, about one third (30.9%) of the respondents disagreed that women only registered for the purpose of where to deliver, while about three-quarter (74.6%) agreed ANC can reduce morbidity and mortality in women. On whether ANC is necessary for purpose of treatment of minor illness during pregnancy; over three quarter (84.4%) of the respondents gave an affirmative answer. Educational status of respondents, their occupation, and number of previous pregnancies and whether they received ANC or not significantly affected their perceptions of ANC. Respondents who had received ANC services were about 26 times more likely to have positive perception of ANC than those who had not. An astonishing result is that uneducated respondents were over twelve times more likely than those who had tertiary education to have positive perception of ANC services (Akanbiemu et al., 2013).

2.9 Pattern of antenatal care services utilization among pregnant women

Maternal health refers to the health of the mother during pregnancy, childbirth and the postpartum period (AbouZahr and Wardlaw, 2004). Utilization of maternal health service is important for early detection of mothers who are at high risk for morbidity and mortality during pregnancy (WHO, 2007). These services are usually preventive and the patients are not usually ill; which makes it easy for the services to be underused (Anya et al., 2000). The utilization of maternal health service definitely is essential strategy in reducing the risks and potential problems associated with pregnancy and child bearing. In the developing countries, these problems are even more prevalent due to the current socioeconomic conditions and inaccessibility of health facilities (AbouZahr and Wardlaw, 2004).

In 1996, WHO recommended four strategic interventions or "four pillars" for safe motherhood. These include family planning, antenatal care, clean/safe delivery and emergency obstetric care. Some of these interventions that have been shown to be effective in detecting, treating or preventing conditions in pregnant women that might otherwise give rise to serious morbidity and mortality are detection and investigation of anaemia, detection and investigation of pregnancy induced hypertension, treatment of severe preeclampsia, screening and prevention of infections and diagnosis of obstructed labour. Almost all of these conditions are detected during ANC visits, hence its importance.

Antenatal care coverage has increased globally (Population Action Int., 2007). In Sub-Saharan Africa, 69 percent of pregnant women have at least one ANC visit, more than in South Asia, which is 54 percent (WHO, 2005). ANC has been described as a major determinant of high maternal mortality rate and one of the basic components of maternal care on which the life of mothers and babies depend (McCarthy and Maine, 1992). Its utilization in the developing countries is however low (65%) when compared to that of the developed countries which stood at 97% (WHO, 2007). World health organization (WHO) recommends at least four visits to antenatal care facilities throughout pregnancy (WHO, 2002) and noted that 52% of pregnant women had four or more ANC visits in 2012, an increase from 37% in

1990 (UN, 2014). Evidence has shown that more than four visits are only recommended in case of complication (Villar et al, 2001).

Using data collected from Bangladesh Urban Health Survey (UHS) 2006, Kabir and Khan (2013) designed a retrospective cross-sectional study among pregnant women of urban slums of Dhaka city, Bangladesh. Sixty four percent of the respondents received ANC in last pregnancy. Pregnant women who visited the health facility reported that they were told about signs of pregnancy complications (56%), had their weight (57.2%) and height (35.8%) measured, blood pressure taken (56.3%) and urine test done (36.6%). Hypotheses testing by the authors revealed a strong association between age, income, level of education, access to mass media and use of ANC.

A cross-sectional study was conducted by Gill and Devgun (2013) titled "Socio-Demographic Factors influencing Antenatal Care Practices in Urban Slums of Amritsar City, Punjab, India". A total of 30 clusters of 7 units each were taken to make a sample of 210 units in the study. The women who had delivered within one year before the interview were taken as study units. Findings from the study revealed that of the 210 women, 64.8% planned the pregnancy and only 42.4% of them had adequate ANC checkups. Iron Folic Acid tablets were taken regularly only by 21.4% of study subjects and 89.5% were immunized against tetanus. Further analysis revealed that nativity, identity proof, socio-economic status of women, type of family, age of women, literacy status of women and their husbands, parity and preplanning of pregnancy emerged as significant factors influencing antenatal care practices of the women. On multivariate analysis, literacy of women and of their husbands and socioeconomic status remained significant factors whereas others transpired to be insignificant.

Another cross-sectional study that was also conducted in India among 250 women who had delivered at least a child in the three years prior the survey (Kulkarni and Nimbalkar, 2008) revealed that the use of ANC was 78.8%. One hundred and ninety seven (197) out of 250 women studied were registered for ANC before 12 weeks of gestation and received 5 or more vi[illegible]. Bivariate relationship showed that significantly, the use of ANC increased with its

education level of women (the use of ANC was 31.6% for illiterate women, 66.7% for women with education level up to secondary school and 90.8% for women who studied up to S.S.C.E and above). Similarly, use of ANC was significantly higher for Christian women (92.7%) compared to Hindu women (78.8%) and Muslim women (48.0%). Those who received good quality of care from the health personnel were 2.12 times more likely to use antenatal care, compared to the women who received poor quality of care. The use of ANC decreased significantly with corresponding increase in distance to health centre from home. Thus, Kulkarni and Nimbalkar's 2008 study revealed the distance to health centre from home was negatively associated with the use of ANC.

On the influence of the media on the use of ANC, Kulkarni and Nimbalkar's study found that use of ANC was significantly associated with exposure to communication variables such as television, radio and newspaper. The women who were exposed to television about messages on prenatal care were 3.35 times more likely to use antenatal care than women who were not exposed to the message on television. The women who heard messages on radio about prenatal care were 2.38 times more likely to use antenatal care than women not exposed to radio, while women exposed to newspaper who read messages about prenatal care were 4.37 times more likely to use antenatal care than women that do not read messages about prenatal care in the newspaper (Kulkarni and Nimbalkar, 2008).

Unlike the findings of other studies, Ye et al. (2010) found that more than half (53.9%) of women in Kham District, Xiengkhouang Province, Lao Pdr, Japan received no ANC service. Reasons adduced for not receiving ANC were being too busy (93.4%), followed by feeling of sufficiently good health (83.8%), feel embarrassed (74.3%), lived too far away from an ANC service (71.3%), view pregnancy as ordinary issue (64.7%) and being poor (58.7%). Among women who had an ANC 143 (46.1%), the highest number of respondents (64.3%) had visited less than four times during their previous pregnancies, whereas only 35.7% had visited four times or more. More than half (58.7%) of the respondents started ANC visits during their second trimester followed by those in their first (39.9%) and third trimester (1.4%). Education, income, knowledge, attitude, distance to the ANC service, availability of public transportation, the cost of transportation, as well as the cost of service were revealed

to be positive and significant predictors of ANC service utilization; levels of education and knowledge were however the most important predictors of ANC utilization in the Kham District.

A household and health facility survey of 1,927 women who had a pregnancy outcome in 2004-2005 compared the frequency and timing of ANC among Nairobi slum residents to other population sub-groups (Nairobi as a whole, urban Kenya and rural Kenya). Findings revealed that 2.9% of the women did not attend ANC. Despite the relatively high proportion of antenatal care from a health professional among slum women (about 97%), 48% made less than the recommended four visits. This figure compares with nearly 25% in Nairobi as a whole and 28% in urban Kenya. Noticeably, this proportion of slum resident women with less than four visits was slightly higher than that observed in rural Kenya (45%) implying that with regard to the frequency of antenatal care, urban slum women are at least as disadvantaged as their rural counterparts (Fotso, Ezeh and Oronje, 2008).

On the timing of the first ANC visit, Fotso et al. (2008) noted that among slum women who attended antenatal care, only about 7% initiated the process in the first trimester of pregnancy as recommended by the WHO, compared to 18% in Nairobi as a whole, about 15% in urban Kenya, and 11% in rural Kenya. Similar disadvantage of the urban poor was also captured in the proportion of women who had their first visit late in the third trimester of pregnancy. The proportion was similar among the slum residents and rural women (about 23%). With regards to the differentials in the timing of antenatal care by household wealth, respondent's education, parity and slum residence, strong differentials in the timing of the first antenatal care visit were recorded with regard to wealth, education, parity and place of residence. Lower household wealth or educational level, higher parity, and being resident in Korogocho were all associated with late initiation of antenatal care visits.

Further analyses on differentials in the frequency of ANC by household wealth, respondents' education, parity and slum residence also revealed that the proportion of women who made the recommended number of visits increased with increasing education and wealth. The expected opposite trend was observed among women who only made two to three visits, and

among those who either did not attend ANC or made only one visit during the course of the pregnancy. Higher parity women were also less likely to make the recommended number of ANC visits and women from Viwandani (the wealthier slum area) were more likely to make the recommended number of visits compared to their Korogocho counterparts (Fotso et al., 2008). There was also a statistically significant relationship between use of ANC and place of delivery: women who reported four or more visits were more likely to deliver in an appropriate health facility (52%) than their counterparts who made only two to three visits (48%) or one visit or none (35%). Likewise women who reported four or more visits were less likely to give birth out of health facilities (25%) compared with their counterparts who made only two to three visits (32%) or less than one visit (44%).

In a report from "Saving mothers" from the department of health (2005–2007), 63.2% of pregnant women in South Africa attend antenatal services. Late presentation at ANC in this report concurs with several studies conducted in other parts of Africa indicating that the majority of women report to clinics during the third trimester of pregnancy, which result in negative birth outcomes and outlines similar causes of maternal deaths. For example in Tanzania, majority of women delayed their first visit to an antenatal clinic. The same findings were echoed in a study conducted in Nigeria where the median time for first antenatal clinic attendance was 23.7 weeks (Mpembeni et al., 2007).

In Bohlabela district in Limpopo, South Africa, a study which aims to explore and describe the indigenous beliefs and practices that influence the attendance of antenatal clinics by women showed that antenatal care and services are not fully utilized by pregnant clients. Only 2.9% of women in the district attend antenatal services before 20 weeks of gestation. In total, 58.3% of women attended antenatal services during their second and third trimesters (Ngoonane et al 2010). Also in Uganda, a study reported that ANC utilization was mainly affected by distance and lack of knowledge of the importance of ANC (Ankunda, 2008). Similar study carried out in Islamabad, Pakistan (Alam, 2004) revealed that of the women who did not avail themselves of ANC, about three-quarter cited ignorance of the importance of antenatal care as reason why they did not utilize ANC.

A study was conducted in Sudan on the antenatal care use among 400 married women of reproductive age from both urban and rural localities in Khartoum State, Sudan (Ibnouf, van den Borne and Maarse, 2007). It was found from the study that there was more utilization of routine antenatal health care services and application of TT- vaccination among the urban women compared to the women in the rural areas. Other factors such as higher quality of care, shorter walk-time to health facility and mother's education were significant determinants of routine antenatal care use (Ibnouf et al., 2007). In another study, Regassa (2011) used a questionnaire to investigate the utilization of antenatal and postnatal care service utilization among southern Ethiopian Population. It was revealed in the study that women with high level of education and exposure to mass media as well as low parity have higher usage of antenatal and postnatal care. This reflects women of high socio-economic status in the rural community that is the rural rich. However, unlike previous findings that revealed low utilization of antenatal care in the rural area, this study showed high antenatal care use in the rural population of Ethiopia.

According to Eggleston (2000), living in urban area was not associated with receiving prenatal care. The 1994 Demographic and Maternal Health Survey data was used to examine the relationship between unintended pregnancies, both unwanted and mistimed and several dimensions of prenatal care use among Ecuador Women. Findings from the study showed that urban residence has no association with receiving prenatal care, but those women in the urban settlement had a higher odd of starting antenatal visit in the first trimester and receiving adequate number of visits than the rural women. However, the differences in patterns of antenatal care use by residence and wealth status across countries in sub-Saharan Africa could be as a result of variation in the quality of health system across these different developing countries of the world. Monica et al. (2003) reported that the urban poor may be more disadvantaged in allocation and utilization of antenatal services than rural residents, especially in a country that has good health system.

Among Nigerian women who had given birth in the last five years, 63% received ante-natal care during their last pregnancy. The proportion that received ANC was higher among urban (83.6) compared to rural dwellers (54%) but no data available for women in urban slums. In

terms of zones, South East had the highest proportion (86%) of pregnant women that received ANC in their last pregnancy, while the lowest proportion (45%) was recorded in the North West. About half (52%) of pregnant adolescents (15-19 years) received ANC (NARHS, 2007). According to the National Demographic Health Survey 2013, 58% of women aged 15-49 received ANC from a skilled provider (doctor, nurse/midwife, or auxiliary nurse/midwife) during their last pregnancy. Thirty percent of the women received ANC services from a nurse or midwife, 23% received ANC services from a doctor while 3% received ANC services from a traditional birth attendant. A total of 36% did not receive ANC services at all (NDHS 2013).

Dairo and Owoyokun (2010) conducted a study on factors influencing the utilisation of ANC services in Ibadan, Nigeria. Of the 400 women interviewed, 23.7% sought traditional ANC while 6% neither sought modern nor traditional ANC. Majority 307(76.8%) attended ANC clinic at least once during their last pregnancy. Of these, 28.0% attended a private hospital for their ANC clinic, 24.4% attended a PHC centre, 15.6% attended a state specialist hospital, 14.0% attended a general hospital, 8.8% attended a maternity home, 8.5% attended a teaching hospital and 0.7% attended a missionary hospital for their antenatal care. The mean gestational age at booking was 21.4±4.6 weeks and the mean number of ANC visits was 9.1±5.9visits. The services received by the respondents at the ANC clinic were screening for risk factors, Tetanus Toxoid (TT) vaccinations, IPT (antimalaria), Insecticide Treated Net (ITN) and health advice. The most common service rendered to the women at the ANC clinic was weight measurement (98%). The women were also given health education with the information received on diet (97.1%) highest, while 85.0% received information on HIV/AIDS.

In Dairo and Owoyokun's (2010) study. the 24 respondents who neither sought modern nor traditional antenatal care during pregnancy gave various reasons for not seeking ANC care at all. More than half (58.3%) gave the inability to afford cost of antenatal care as the reason for not obtaining antenatal care at all. The other reasons reported by the women who did not seek antenatal care at all include did not think antenatal care was even important (\$9.30%), claim they had no chance to attend (29.6%), the long time that will be spent in obtaining antenatal

care (29.6%), distance to venue of antenatal care (22.2%), the attitude of care givers (14.8%) and religious reasons (3.7%). Multivariate analysis of the authors' findings revealed that women in urban areas were more than 2 times likely to attend antenatal clinic than women in rural areas, Muslim women or other religions were more than 2 times likely to attend ANC clinic than women who were Christians, women who were 25 years or more were two times more likely to utilize antenatal care and services than women who were less than 25 years. In lieu of these findings, the authors suggested that efforts towards ensuring ANC utilization should be targeted towards rural areas, the importance of modern antenatal care should be emphasized even in the religious settings and younger women should be encouraged to utilize antenatal care services (Dairo and Owoyokun, 2010).

Another Nigerian study was conducted to examine the patterns of maternal health services and also assess the determinants of the pattern of maternal health services in Saganu (Iyaniwura and Yusuf, 2009). The study was conducted on selected 392 women who had at least one successful delivery in Saganu area of Nigeria. Findings from the study revealed that antenatal and delivery service use increased as educational status and higher level of income was attained. This showed a positive significant association between antenatal and delivery care with education and wealth status. Therefore, if the socio-economic status of men were increased in the community then there will be improvement in the utilization of maternity care services (Iyaniwura and Yusuf, 2009).

Babalola and Fatusi (2009) also carried out a study on the determinants of maternal service utilization in Nigeria. A multi-level analysis was done in this study which included individuals, household, community and state level analysis. Data from the 2005 National HIV/AIDS and Reproductive Health was used to examine individual, household and community determinants of maternal care services among 2148 women who had a baby at least five years prior to the survey. Findings showed that education, socio-economic level, urban residence and community media saturation are significant predictors of maternal health service utilization at all the level of analysis respectively except the state. However, woman's at birth of last child, ethnicity, notion of ideal family size, approval of family planning

prevalence of the small family norm in the community and ratio of primary health care to the population revealed variation in predicting maternal healthcare utilization at individual, household, community and state-level respectively (Babalolu and Fatusi, 2009).

In Northern Nigeria, Kabir, Iliyasu, Abubakar and Sani (2005) studied the factors that are significantly associated with the use of antenatal care services. The study was specifically done in a village setting of Kumbotso in Kano, Nigeria. The study used data from 200 women of childbearing age in this village community to assess factors that significantly determine antenatal care use in the village. The study found that women education and the education of their husband were positively associated with antenatal care use among rural women. The higher the educational status attained, the higher the use of antenatal care among the women.

A more recent study conducted in Nigeria by Akanbiemu et al. (2013) found that most (95.4%) of their respondents utilized ANC during their last pregnancy. Age was found to be associated with the utilization of ANC but women aged 20-29 were the highest numbers of users when compared with the other age groups. Also attaining any level of education was significantly associated with ANC utilization as those with secondary education has the highest proportion of ANC utilization in their last pregnancy as compared with those without formal education. In addition, marital status was significantly associated with the utilization of ANC as those who were married had the highest proportion of users when compared with the single respondents. Previous delivery of a healthy baby was the factor found to have the strongest influence on the utilization of any ANC services and also husband's educational status. Knowledge of ANC was however not associated with ANC utilization.

As part of their study, Akanbiemu et al (2013) reported a preference for utilization of public ANC health facilities (general/state specialist hospital and health Centres) among their respondents (75%) while only about one-quarter utilized other facilities like private hospitals (16.1%) home/birth attendants (5.2%) and faith-based organizations (2.2%) in decreasing order. Very few women (1.5%) did not utilize any ANC facility. On probing for reason for the preference for the public ANC health facilities, about 41% of the respondents stated that

Ondo State free health programme for pregnant women was the single reason why they utilized public health facilities, followed distantly by satisfactory treatment of illnesses during pregnancy (12.7%) and Health Education during ANC visit (9.4%). Reasons adduced by respondents for consideration before making a choice of ANC facility were previous delivery of a healthy baby (85.2%), availability of immunization services (85.0%), politeness of health workers (75.5%) and "husband's instruction" (53.6%).

2.12 Conceptual framework

2.13 The Health Belief Model

The Health Belief Model (HBM) was developed in the early 1950s by social scientists at the U.S. Public Health Service in order to understand the failure of people to adopt disease prevention strategies or screening tests for the early detection of disease. Later uses of HBM were for patients' responses to symptoms and compliance with medical treatments. The HBM suggests that a person's belief in a personal threat of an illness or disease together with a person's belief in the effectiveness of the recommended health behaviour or action will predict the likelihood the person will adopt the behaviour.

The HBM derives from psychological and behavioural theory with the foundation that the two components of health-related behaviour are 1) the desire to avoid illness, or conversely get well if already ill; and, 2) the belief that a specific health action will prevent, or cure, illness. Ultimately, an individual's course of action often depends on the person's perceptions of the benefits and barriers related to health behaviour. There are six constructs of the HBM. The first four constructs were developed as the original tenets of the HBM. The last two were added as research about the HBM evolved.

1. Perceived susceptibility - This refers to a person's subjective perception of the risk of acquiring an illness or disease. There is wide variation in a person's feelings of personal vulnerability to an illness or disease.
2. Perceived severity - This refers to a person's feelings on the seriousness of contracting an illness or disease (or leaving the illness or disease untreated). There is wide variation in a person's feelings of severity, and often a person considers the medical consequences (e.g., death, disability) and social consequences (e.g., family life, social relationships) when evaluating the severity.
3. Perceived benefits - This refers to a person's perception of the effectiveness of various actions available to reduce the threat of illness or disease (or to cure illness or disease). The course of action a person takes in preventing (or curing) illness or disease relies on consideration and evaluation of both perceived susceptibility and perceived benefit, such

that the person would accept the recommended health action if it was perceived as beneficial.

4. Perceived barriers - This refers to a person's feelings on the obstacles to performing a recommended health action. There is wide variation in a person's feelings of barriers, or impediments, which lead to a cost/benefit analysis. The person weighs the effectiveness of the actions against the perceptions that it may be expensive, dangerous (e.g., side effects), unpleasant (e.g., painful), time-consuming, or inconvenient.
5. Cue to action - This is the stimulus needed to trigger the decision-making process to accept a recommended health action. These cues can be internal (e.g., chest pains, wheezing, etc.) or external (e.g., advice from others, illness of family member, newspaper article, etc.).
6. Self-efficacy - This refers to the level of a person's confidence in his or her ability to successfully perform behaviour. This construct was added to the model most recently in mid-1980. Self-efficacy is a construct in many behavioural theories as it directly relates to whether a person performs the desired behaviour.

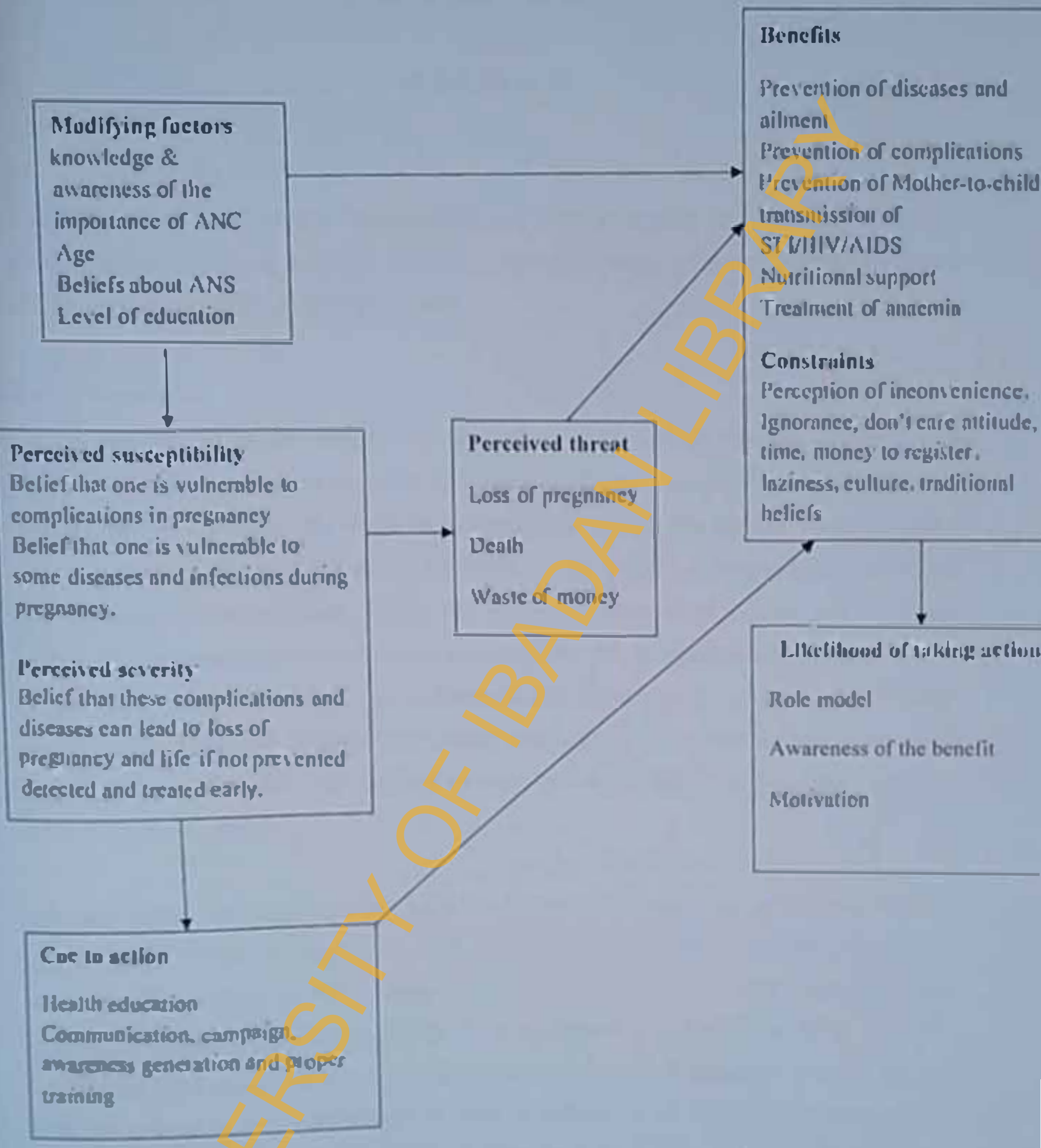

Figure 2.1: Health Belief Model Conceptual Frame work showing Perception of Pregnant Women towards ANC

HEALTH BELIEF MODEL.

CHAPTER THREE

METHODOLGY

3.1 Study design

This study was a descriptive cross sectional study used to explore the antenatal care health seeking behaviour among pregnant women in the urban slums of Ibadan South East Local Government Area (IBSELGA) of Oyo state.

3.2 Study Area

Ibadan, one of the largest indigenous metropolitan areas in sub-Saharan Africa has an estimated population of about 2 million inhabitants made up of people from different parts of Nigeria and other parts of the world (Adedimeji, et al 2005). The city, located on a major transport route to the northern parts of Nigeria, is the largest of contemporary traditional Yoruba towns (Adedimeji et al., 2005). The residential structure of the city can be divided into three homogenous groups: the core, the periphery and the intermediate areas. The core area is the traditional area of the city; characterised by high levels of poverty, high population density, lack of physical planning, dilapidated buildings, poor sanitation, inadequate health facilities, slum settlements, high level of illiteracy and low level of socioeconomic activities (Adedimeji et al., 2005).

The intermediate (transitional) areas, including Molete, Oke-Ado, Mokola, Eleyele, Agbowo, etc., are areas of late development and are mainly inhabited by migrants from other Yoruba towns and other ethnic groups or those who moved out of family compound houses which were once favoured at Urban slum residence. Population density here is moderate than those of the traditional areas and housing is also moderately scattered although, these are not well laid out as those found in the peripheral areas (Adedimeji et al., 2005). Apart from Yorubas from other towns who reside in these areas, people from other ethnic groups: Efiks, Igbos and Hausas also reside in these areas. The periphery, including Bodija Housing Estates, University of Ibadan, Jericho and Iyaganku Government Reservation Areas and other

emerging well planned areas of the city are inhabited mostly by the elite and is characterised by well laid out residential apartments, low population density and the availability of essential social services. Health care needs of the population of the metropolis is provided by the University College Hospital, two State Hospitals and several private medical facilities in addition to traditional medical practitioners scattered all over the city (Adedimeji et al., 2005).

This study was conducted in IBSELGA of Oyo State. It is one of the 33 LGAs in Oyo State and one of the five local governments that were carved out of the defunct Ibadan Municipal Government (IMG). The local government which has its headquarters on top of Mapo Hill is bounded on the North by Ibadan North local government, on the East and South by Ibadan North East and Oluyole local Government respectively and bounded on the west by Ibadan South West local government. The local government covers an area of about 80.537 hectares of land with a population of about 266,457 (Official Website of Oyo State). The local government which is the largest among the five other local governments in Ibadan Metropolis is divided into twelve political wards. Principally, it is made up of the following areas as its components- Mapo, Oja Oba, Idi Arere, Bode, Molete, Olorunsogo, Challenge, Felele, Yejide, Kudeti, Oke OluOkun, Elela, Elekuro, Modina, Agbonlogbon, Labo, Oranyan just to mention a few prominent places.

The indigenes of Ibadan South East Local government are predominantly Yorubas with few other inhabitants which cut across racial, religious and ethnic background. Respondents for this study were drawn from selected areas in IBSELGA because the local government houses the largest slum areas in the city. The characteristics of IBSELGA which fits the urban slum criteria include being situated within the city's metropolis and having high population density, inadequate social amenities and services including health and educational facilities, crowded residences, poor sanitation at both individual and community level, inadequate and inaccessible road network, lack of potable water, and erratic electricity supply. The population structure of this community consists of predominantly young people with the

majority between the ages of 15-30, and most of them are civil servants and artisans involved in trades such as welding, tailoring, hairdressing and other handicrafts.

3.3 Study Population

The study population comprised pregnant women who were resident in urban slums of IBSELGA.

3.4 Inclusion and Exclusion Criteria

Inclusion Criteria:

Consenting women who were pregnant at the time of the study and had resided in the study area for at least one year prior to the time of data collection were included.

Exclusion Criteria:

All those who did not fall within the inclusion criteria and those who fall within the inclusion criteria but did not consent to participate in the study were excluded from the study.

3.5 Sample size determination

The sample size was obtained using the statistical formula for estimating single proportion i.e.

$n = \frac{Z^2pq}{d^2}$ (Leslie Kish Formula)

Where z= 1.96 (level of significance of 5% (1.96)

p= 63% (Prevalence of antenatal utilization in Nigeria (NDHS. 2013)

$q = 1-p = 1.0.63 = 0.37$

d=5% (Degree of accuracy i.e. precision)

n= minimum sample size

$n = \frac{1.96^2 \times 0.63 \times 0.37}{0.05^2} = 358$

But calculating for the design effect which account for non responses and generalisation of result = n x1.5 i.e. 358 x 1.5=537

Therefore, making total sample size of 540 approximately.

3.6 Sampling Technique

Respondent were selected using multistage sampling technique and the stages are explained below:

Stage 1: Simple random sampling technique was used to select 7 wards from the 12 wards of Ibadan Southeast LGA (see table 3.1).

Stage 2: Proportionate sampling was used to select 14 slum communities from the 7 selected wards (see table 3.2). The number of community(ies) to be picked from a ward is calculated proportionately to the total number of communities in the wards

Stage 3: Households with consenting pregnant women were purposively selected to partake in the study. Equal number of households was selected from each participating wards.

Stage 4: In households where there were more than one eligible respondent (pregnant woman) for the study, simple random (balloting) was used to select one pregnant woman to participate in the study.

Table 3.1: Name of Wards in the Ibadan South East Local Government

SN	NAME OF WARDS
Ward 1	Mapo*
Ward 2	Ojaoba*
Ward 3	Oranyan*
Ward 4	Kobomoje*
Ward 5	Agbongbon*
Ward 6	Elekuro
Ward 7	Adesola
Ward 8	Odinjo
Ward 9	Oke-oluokun
Ward 10	Owode
Ward 11	Molete*
Ward 12	Orita challenge*

KEY: The wards that are asterixed were the ones that participated in the study. They were randomly selected.

Table 3.2: Name of participating communities from the selected wards Ibadan South East Local Government

WARDS	COMMUNITIES
Kobomoje	Kobomoje
Molete	Anfaani
	Molusi
Orita challenge	Felele
	Elewura
	Bolumole
Agbongbon	Odo Oba
	Agbongbon
Mapo	Mapo
	Aremo
Oja Oba	Isalcijebu
	Esuawele
Oranyan	Oranyan
	Oja-igbo

3.7 Instrument for data collection

Both quantitative and qualitative methods were used for data collection and the Focus group discussion (FGD) and semi-structured interview were respectively used under these methods for the data collection.

3.7.1 Focus Group Discussion Guide

Focus group discussion guide was developed from the review of literature to give a deeper insight into indicators of antenatal health care seeking behaviour among pregnant women. The interview guide covered the following respondents' knowledge of ANC, perception about ANC, health seeking practices for antenatal care and factors influencing utilization of ANC.

3.7.2 Questionnaire

A semi structured questionnaire comprising of live sections was designed to obtain desired information from the respondents. Section A was used to collect information on socio demographic characteristics, section B was used to assess knowledge of ANC, perception about ANC was measured using questions in section C. Questions in sections D and E were used to obtain information on health seeking practices for antenatal care among the pregnant women and factors influencing utilization of ANC respectively.

3.8 Validity of the Instruments

The instruments (FGD and questionnaire) were developed after consultation of relevant literatures and also subjected to review by supervisor and other lecturers in the faculty of public health, University of Ibadan. The FGD was translated back to back to Yoruba and English for reliability and validity. It was pre-tested in a similar setting and amendments and corrections were made where necessary. The questionnaire was developed using supportive information obtained through the FGD. To ensure further validity, the questionnaire was also subjected to the "translation-back translation method" which involved translation of the instruments from English to Yoruba and an independent translation back in English.

3.9 Reliability of the Instrument

The instruments used to collect data for the study were pre-tested among pregnant women living in slums in Ibadan North-East Local Government Area considering that this local government share similar characteristics with that of the study site. Two (2) FGDs were conducted at pre-test and sixty (60) copies of the questionnaire were administered to eligible respondents at a Mission House, PHC and Communities in the LGA at pre-test. Thereafter, the questionnaire was subjected to a measure of internal consistency using the Cronbach's Alpha model technique. The reliability value obtained for the study was 0.72. The reliability coefficient obtained from this analysis was used to ascertain the statistical reliability of the instrument.

3.10 Data collection procedure

Two female research assistants with tertiary education and who can speak in both English and Yoruba fluently were trained. They helped in the administration of the questionnaires. The research assistants were involved in the pre-test, and this prepared them adequately well for the main data collection. Focus of the training was the objective of the study, administration of instrument, sampling technique and ethical considerations.

The researcher made provision for interviewer-administered questionnaire in the local language (Yoruba) for respondents that did not understand English. Both English and Yoruba version of the questionnaire were used depending on the preferred language of the respondents. Prior to the administration of the questionnaires, respondents were provided with some information about the study. This included information relating to the nature of the study objectives, selection of respondents, time-frame for the interview and issues about confidentiality of responses. Only respondents who gave their consent verbally were selected for the study.

Six Focus Group Discussions were conducted among pregnant women. One (1) FGD (Appendix 2) was conducted per (6) randomly selected wards. At each ward, 8 pregnant women randomly selected from the communities in the wards participated in each group of the Focus Group Discussion. A total of 6 FGDs were conducted for this study.

3.11 Data Management and Analysis

To ensure adequate data management and analysis, the FGDs were transcribed and thematically analysed. The questionnaires were serially numbered for control and recall purposes. Completed questionnaire was carefully cleaned and coded. Coding guide was developed and used in the process of analysis. Generated data were carefully entered and analysed using the statistical products and services solution (SPSS) software (Version 22). The data were used to generate both descriptive (frequencies and percentages) and inferential (Chi-square and linear regression model) statistics. The results were presented with appropriate graphical illustrations, diagrams and tables.

3.12 Ethical Consideration

Approval for the study was obtained from the University College Hospital UI/UCH joint Institutional Review Committee (IRC), University of Ibadan. Permission was obtained from the Ibadan South East LGA secretariat and heads of street/settlement where available. Approval and support of the Medical Officer for Health (MOH) and the health personnel in the Primary Health Centres in the ward where the study was conducted was obtained. The following ethical issues were also taken into consideration before, during and after data collection:

Confidentiality

Privacy of participants was ensured by using a serial number on the information collected, rather than a name. Only the researcher knew the identification, and the information was kept secret. The data was not disclosed to anyone.

Translation

The informed consent form and questionnaire was translated to Yoruba language for the purpose of respondent that didn't understand English Language.

Beneficence

Women of reproductive age and the society at large will benefit directly or indirectly from ANC potential programme and intervention that may be implemented based on the findings from this research.

Non-Maleficence

The research was relatively free of any risk.

Voluntariness

Participation in the study was completely voluntary and based on informed consent obtained from the respondents. Participants were made to understand that they were free to withdraw from this study at any time.

CHAPTER FOUR

RESULTS

4.1 Socio-demographic characteristics of respondents

Tables 4.1 and 4.2 show the socio-demographic characteristics of the respondents. There were a total of 540 respondents, all of whom were females and pregnant at the time of the survey. Respondents' age ranged from 16-50 years with a mean of 27.4±6.0 years. Most of the respondents were Yoruba (96.3%) while only a few were Ibo (1.5%) and Hausa (0.9%). Majority of the respondents practiced Islam (64.7%) while about one-third (35.3%) were Christians. Most (94.8%) of the respondents attended school: 53.6% had a secondary education, 25.6% had only primary education while 15.6% obtained tertiary education. Trading (55.0%) was the predominant occupation among the respondents, 55.9% earned less than 10,000 Naira as monthly income and half (51.2%) lived in a one room apartment.

Majority (61.5%) of respondents' partners had a secondary education while 23.3% had a tertiary education. Forty three percent (42.7%) of partners were artisans and this was followed closely by those who were traders (33.0%). More than seventy percent (72.6%) of the respondents were married while others were cohabiting (20.2%) or single (7.2%). Majority (79.8%) of the married respondents practiced monogamy. mean and median age at marriage was respectively 22.6±3.6 years and 22.0 years while the median number of married years was 6.0 years. Half (51.3%) of the respondents got married when they were within the age bracket of 20-24 years. 30.9% married at age 25 or above while 17.9% were married when they were less than 20 years. Husbands' mean age at marriage and last birthday were 32.5±16.7 and 37.7±15.3 respectively.

Table 4.1: Socio-Demographic characteristics of respondents

N=540

Characteristics	No	%
Age group (in years):		
≤25	171	31.7
25-29	162	30.0
30-34	131	24.3
>34	76	14.1
Ethnic group:		
Yoruba	520	96.3
Igbo	8	1.5
Hausa	5	0.9
Others*	7	1.3
Religion :		
Christianity	191	35.3
Islam	349	64.7
Attended school:		
Yes	512	94.8
No	28	5.2
Level of education:		
Primary	138	25.6
Secondary	290	53.6
Tertiary	84	15.6
No formal education	28	5.2
Occupation:		
Trader	297	55.0
Artisan	159	29.4
Unemployed	42	7.7
Civil servant	29	5.4
Patent medicine vendor	9	1.7
Privately employed	4	0.8
Average monthly income		
<10,000 Naira	302	55.9
≥10,000 Naira	196	36.3
Don't want to disclose	42	7.8

*Other ethnic groups were Igala, Ibira, Togo and Bini

Table 4.2: Socio-Demographic characteristics of respondents

N=540

Characteristics	No	%
Type of residence		
One room	277	51.2
Two rooms	184	34.1
Three rooms	73	13.5
Self-contain	6	1.1
Partner's level of education		
None	13	2.4
Quranic	1	0.2
Primary	66	12.2
Secondary	332	61.5
Tertiary	126	23.3
Don't know	2	0.4
Partner's occupation		
Trader	178	33.0
Artisan	231	42.7
Civil servant	52	9.6
Professionnl	61	11.4
Unemployed	18	3.3
Marital Status		
Single	39	7.2
Cohabiting	109	20.2
Married	392	72.6
Type of family (N=392):		
Monogamy	313	79.8
Polygamy	79	20.2

**No responses were excluded

4.2 Respondents' Knowledge of Antenatal Care (ANC)

The details relating to respondents' knowledge of ANC are presented on Tables 4.3 and 4.4. About thirty percent (29.6%) of the surveyed respondents stated that a woman should register for ANC in the fourth month of pregnancy while 26.9% and 25.4% thought that the appropriate time to register was in the fifth and third month respectively. On the other hand, a few (2.6%) did not know the period a woman should register for ANC. On what the components of ANC are, respondents mentioned health promotion (67.0%), birth preparedness (63.5%), social care (45.0%), immunization (42.0%) and disease detection (31.5%). Respondents mentioned blood pressure (82.8%), urine test (66.1%), blood test (57.0%), weight measurement (55.9%) and screening for HIV (53.7%) as the examinations that are carried out during ANC. However, only few respondents mentioned that height measurement (8.3%) and screening for syphilis (1.7%) were among examinations conducted during ANC.

As shown on Table 4.4, most of the respondents knew that ANC is a component of safe motherhood (95.9%), beneficial to both mother and baby (94.8%), should be carried out by a skilled worker (94.4%) and necessary for all pregnant women (94.3%). Most (95.2%) of them also knew that starting ANC early helps detect problems in mother and child (95.2%).The mean knowledge score of the respondents was 14.7±5.0. overall, about sixty percent (59.1%) of the respondents had good knowledge of ANC while 40.9% had poor knowledge of ANC.

In the focus group discussion, most of the respondents said Antenatal Care is to ensure that there is no complication during delivery. Some of the responses from the respondents were as follows:

'Because of the delivery day, so that there won't be complications, so that everybody can deliver in happiness'

'I don't know much about it, but what I know is that one should come and receive a treatment that is OK which is better than the people staying at home that thinks they can deliver safely at home. So, if one comes by the time one is supposed to come, they

will give her a treatment that is good which the person is entitled to receive. Because by the time the person wants to give birth, she won't experience pains/complications'

'What I know about it is that, one should come for the care of the body and for the care of the unborn child (pregnancy). So that one can know how everything is going so that there won't be complications on the day of delivery and all will turn into joy for the person'.

'What I understand about it is that, so they that can be checking our health every time'

'What we understand about it is that so that we can know the health status of the unborn child and the food that we are to be eating with how the time of the child is and the condition of the unborn children. That's all we know about it'

'What we understand is that; so that we can know our health status and the health status of the unborn children and what we are to be eating. And to know how the unborn child is breathing during pregnancy and checking of our blood pressure'

'What we understand about it is that; when we come for ANC, so that we can know this is how our body is, this is how we are, and how the baby is. The type of food we can eat, like water whether there is anything that we eat that can be harmful to us and the unborn child or they should know how the weight of the child is and how we the mother too is'.

'What we understand about the care we are receiving here is that so that we can know how the baby is in our stomach and how our health status is. They are taking care of us, they do give us injection, and they do give us drugs'

'What we understand about this place we do come is that, so that we can know our health status, so that we can be ok and our unborn children too can be ok in the stomach. So that we can know... they do teach us what we are to eat and what we shouldn't eat they do tell us. They do give us drugs and injections at the appropriate time that we need them'

'The understanding we have about it is that so that we can know the health status of the unborn child and our health status. So that there won't be complications on the day of delivery, and there won't be problems. We should be eating things that are ok so that every one of us won't have problems. That's what we know about it'

'What we came for is for our health. Because of the condition we are into. They do give us injection and they do press our stomach. What they are supposed to do for us, they always do it, and they do give us drugs. That's why we have come here'.
'ANC is for... us in the mother, before she delivers the baby... how she will take care of herself and the baby during pregnancy. On how the baby will be ok is ANC'.

One of the respondents actually summarized what ANC is all about. According to her:

'ANC is for pregnant women. like, firstly, at least, by three month she should come and register. So that she can know the condition in which the baby is. At least, if there is a problem, they will know what to do to it because the baby might be in a position that is not ok. If one registers early, they will know what to do, whether to give injection or anything that they will do it so that they can protect the pregnant woman But, the pregnant woman, she should come for ANC because so that when she wants to deliver, she will be free so that she won't trouble herself and the person that will aid her during her delivery. All the food that she is supposed to be eating, whether drugs, and everything. All what she is supposed to be doing. They will explain everything. At least, three month at most, like what they do tell us, she should come and register. They will be able to do proper care on her and she will be able to deliver.

Table 4.3: Knowledge of ANC among respondents

N=540

Statements	No	%
Pregnancy age when a woman should register for ANC		
First month*	10	1.9
Second month*	21	3.9
Third month*	137	25.4
Four month	160	29.6
Fifth month	145	26.9
Six month	36	6.7
Seventh month	17	3.1
Don't know	14	2.6
Components of ANC:		
Disease detection*	170	31.5
Counselling*	134	24.8
Health promotion*	362	67.0
Birth preparedness*	343	63.5
Complication preparedness*	52	9.6
At risk approach*	113	20.9
Registration and Record keeping*	8	1.5
Social care*	243	45.0
Immunization/Vaccination*	227	42.0
Examination 1st & Periodic visits*	11	2.0
Examination/test done during ANC:		
Blood test*	308	57.0
Screening for Syphilis*	9	1.7
Screening for HIV*	290	53.7
Screening for malaria*	44	8.1
Urine test*	357	66.1
Height Measurement*	45	8.3
Weight measurement*	302	55.9
Blood Pressure*	447	82.8

**Multiple responses were allowed

*Correct response

Table 4.4: Knowledge of ANC among respondents

N=540

Statements	No	%
ANC is a component of safe Motherhood:		
True*	518	95.9
False	22	4.1
ANC should be carried out be a skilled worker:		
True*	510	94.4
False	30	5.6
ANC is necessary for all pregnant women:		
True*	509	94.3
False	31	5.7
ANC is not compulsory for pregnant women:		
True	33	6.1
False*	507	93.9
Pregnant women should attend ANC early (1st Trimester):		
True*	399	73.9
False	141	26.1
Pregnant women should attend ANC anytime:		
True	112	20.7
False*	428	79.3
Early ANC puts the baby at risk of infections:		
True	37	6.9
False*	503	93.1
Early ANC is beneficial to both Mother and baby:		
True*	512	94.8
False	28	5.2
Early ANC helps detect problems in mother and child:		
True*	514	95.2
False	26	4.8

*correct responses

4.3 Antenatal Practices of respondents

4.3.1 Antenatal practices relating to previous pregnancy

Majority (71.1%) of the women interviewed had previously been pregnant, only28.9% were pregnant with their first child (see Table 4.5 for details). Among those who had been pregnant before, 31.0% had been pregnant once while 18.5% had been pregnant up to four times or more. Likewise, 31.0% had only one child while 14.8% had four or more children. Most (92.2%) of the women received antenatal care during their last pregnancy while 7.8% did not. Reasons for not utilizing ANC included financial cost (40.0%), husband's decision (36.7%) and patronizing traditional homes (30.0%) (See Table 4.6 for details).

Reasons adduced for utilization of antenatal care were perceived health benefits (62.1%) and assurance of a normal pregnancy (55.6%). Majority (72.6%) of the women were attended by a nurse/midwife during the ANC visits while doctors attended to 19.5% of the women. Government health facilities (79.9%) were the choice facility for ANC attendance among the respondents. Reasons for choice of ANC facility included perception of quality of care (81.9%), proximity of health facility (57.1%) and cost of health bills (39.0%) (See Table 4.6 for details). According to a woman in the focus group discussion *'It is not all the pregnant women in this area alone, some people do come from Amuloku and Akanran. You know, individuals just come from different places. It is what you hear about how they care there that brings the number of people here'*. This is also supported by another respondent when she said that *'from where I come from, it is Oranyan here that we use, because of the care and treatment they give people and on the delivery day, they care and attend to person very well so that there won't be problems for someone. So it is this place that we use all the time'*.

According to another respondent, *'You know, there are many general hospitals around, an individual will see that she can't afford the transportation fare, and will decide to go to where is near to her. And some people don't care about the treatment that they will give her it is the transportation fare that some people consider, so there are many places that people go to'*. As shown on Table 4.7, only a few (17.8%) of the respondents did not deliver their previous child in the health facility used for ANC and reasons provided by respondents for

this behaviour were preference for delivering at home (25.4%) and mission house (23.8%), facility being too far away (12.7%) and because they relocated to a new environment (11.1%).

Table 4.5: Antenatal practices of respondents relating to previous pregnancy

Variables	No	%
Is this your first pregnancy(N=540)		
Yes	156	28.9
No	384	71.1
Number of previous pregnancy (N=384)		
1	119	31.0
2	112	29.2
3	82	21.4
≥4	71	18.5
Number of children (N= 384)		
0	3	0.8
1	119	31.0
2	123	32.0
3	82	21.4
≥4	57	14.8
Did you receive antenatal care during last pregnancy (N= 384)		
Yes	354	92.2
No	30	7.8
Reasons for non-utilization of ANC (N=30)		
Financial cost	12	40.0
Husband's decision	11	36.7
Patronize traditional homes	9	30.0
Long waiting time	5	16.7
Attitude of care provider	4	13.3
Religious reasons	4	13.3
ANC not important except when ill	3	10.0
Traditional/cultural barriers	3	10.0
Distance to health facility	2	6.7

Table 4.6: Antenatal practices of respondents relating to previous pregnancy

Variables	No	%
Reasons why antenatal care was received*		
Perceived health benefits	220	62.1
To get assurance of a normal pregnancy	197	55.6
Was ill during delivery	117	33.1
To get vaccination	54	15.3
Health worker that mainly attended to them during ANC visits*		
Nurse/Midwife	257	72.6
Doctor	69	19.5
Traditional Birth Attendant	20	5.6
Community Health Extension Worker	14	4.0
Type of health facility used for ANC (N=344)**		
Government hospital	275	79.9
Private hospital	49	14.2
Mission homes	16	4.7
TBA	4	1.2
Reasons for choice of health facility*		
Perception of quality of care	290	81.9
Proximity of health facility	202	57.1
Cost of health bills	138	39.0
Husband's preference	88	24.9
Religious reasons	3	0.8
Culturol demand	1	0.3

**No responses were excluded
*Multiple responses were allowed

Table 4.7: Antenatal practices of respondents relating to previous pregnancy

N=354

Variables	No	%
Delivered previous child in facility used for ANC		
Yes	291	82.2
No	63	17.8
Reasons for not delivering in the facility used for ANC (N=63*)		
Delivered at home	16	25.4
Delivered nt mission home	15	23.8
Facility I usually use is too far away	8	12.7
Relocated to a new environment	7	11.1
Referred to another hospital	4	6.3
Facility was nearby	3	4.8
Delivered in another hospital that I had also registered in	3	4.8
Delivered in a PHC	2	3.2
Was okay when I went to deliver	1	1.6
Facility was not opened	1	1.6
Delivered on nty way to the hospital	1	1.6
It was a premature birth	1	1.6
The environment/place is not good	1	1.6

*Multiple responses were allowed

4.3.2 Antenatal practices relating to index pregnancy

As seen on Table 4.8, more than half (51.9%) of the women were in the third trimester of their pregnancy. Majority of them planned the pregnancy (74.8%) and had registered for ANC (82.4%). On when they registered for ANC based on the age of pregnancy, a little above half (53.2%) of them registered in the fourth (26.7%) and fifth (26.5%) month (Table 4.9). Cost of ANC services (16.8%) was the main reason given by those who had not registered for ANC(Table 4.8). Majority of the women had their weight measured (69.0%), blood pressure measured (63.8%) and received tetanus injection (81.3%). Some of them also had urine test (44.5%) and blood test (44.0%). In the focus group discussions conducted, some of the benefits derived by them from ANC included the following.

'They do give us injections and gifts, they do give us injections and they do give us care'.

'They do give us different kind of care, if they should examine our urine now for example, if they find anything so they will give us treatment'.

'When we come here, they do press our stomach, and if we complain to them, if there is a need for medicine, they will give us and if it requires injections, they will write it for us and they will give us the complete dose of the injections'.

'They do test our blood, they do palpate, and urine test also hmmm... and they do check our BP'

Majority (76.3%) of the women also reported that the schedule of ANC visits proposed by their service provider was monthly visit until the 28th week; fortnightly visit until the 36th week; weekly visit until delivery (see details on Table 4.9).

Table 4.10 shows that other than the initial place where they registered, thirty eight percent of the women also registered for ANC in another birth facility like mission homes (56.8%), government health facility (20.1%) and private health facility (17.2%). About half (48.5%) of these respondents intended to give birth in the other facility they registered for ANC and the

our mummy has said. some people still go to somewhere else like mission; like people saying "I will like to give birth at the mission because God do answer my prayers" and God will answer all our prayers'.

Some of the respondents in the focus group discussion agreed that some other women register to other places apart from health centres.

According to a respondent in the focus group discussion. '*some people go to herbalist, and some people do go to private clinics* '. When asked to state the reasons they registered elsewhere without the intention to deliver there, more than half (51.7%) reported that they simply registered there for purpose of praying for safe delivery while 17.2% stated that because it is close to their house/shop (See Table 4.11 for details).

Table 4.8: Antenatal practices of respondents relating to index pregnancy

Variables	N=540 No	%
Age of pregnancy (N=538)**		
First trimester	30	5.6
Second trimester	229	42.6
Third trimester	279	51.9
Was the pregnancy planned before conception (N=540)		
Yes	404	74.8
No	136	25.2
Have you registered for ANC (N=540)		
Yes	445	82.4
No	95	17.6
Reasons for not registering for ANC (N=95)		
Cant mention any specific reason	53	55.8
Cost too much	16	16.8
Lack of means of transportation	5	5.3
Don't trust formal health facility	5	5.3
Facility not open	2	2.1
Health facility too far	2	2.1
No female provider at health facility	5	5.3
Husband/family did not allow	5	5.3
Poor quality service	2	2.1

**No responses were excluded

Table 4.9: Antenatal practices of respondents relating to index pregnancy

N=445

Variables	No	%
When did you register for ANC		
First month	4	0.9
Second month	23	5.2
Third month	86	19.3
Fourth month	119	26.7
Fifth month	118	26.5
Sixth month	51	11.5
Seventh month	23	5.2
Eight month	18	4.0
Ninth month	3	0.7
Was any of the following done at least once*		
Weight measurement	307	69.0
Blood pressure measurement	284	63.8
Urine test	198	44.5
Blood test	196	44.0
Height measurement	56	12.6
Were you given an injection in the arm to prevent tetanus (N=433)**		
Yes	352	81.3
No	81	18.7
Frequency of ANC visits proposed by service provider(N=400)**		
First between the 8th -12th week; second between the 24th -26th week; third during the 32nd week; fourth between the 36th -38th week; other visit after the 38th, as required.	95	23.7
Monthly visit until the 28th week; fortnightly visit until the 36th week; weekly visit until delivery	305	76.3

**No responses were excluded
*Multiple responses were allowed

Table 4.10: Antenatal practices of respondents relating to index pregnancy

Variables	No	%
Registration for ANC elsewhere (N=445)		
Yes	169	38.0
No	276	62.0
Where else did you register for ANC (N=169)		
Government health facility	34	20.1
Private health facility	29	17.2
Mission home	96	56.8
TBA	10	5.9
Intention to give birth in the facility you where previously registered (N=169)		
Yes	82	48.5
No	87	51.5
Reasons for preference of the facility(N=82*+)		
Because the place is okay and they offer quality service	30	36.6
Already paid/registered there	30	1.2
Facility is nearby/close to home	20	24.4
They play alot there	10	12.2
Prefer government health facilities	6	7.3
Have a relative working there	4	4.9
Facility is not close by	3	3.7
Prefer mission home	3	3.7
Health promotion	2	2.4
A relative advised to use the place	2	2.4
Due to financial reasons	2	2.4
Prefer to use two places	2	2.4
Facility may go on strike	1	1.2
Since it was my first pregnancy	1	1.2
Health facility can't be compared with a church	1	1.2
My organization is responsible for my treatment	1	1.2
Gave birth at home	1	1.2
Labour may start at mid night	1	1.2

*Multiple responses were allowed

Table 4.11: Reason for registering in the facility without intention to give birth there (N=87*)

Variables	No	%
Just for praying purpose/went to pray for safe delivery	45	51.7
Near my house/shop	15	17.2
Health facility is far from my house	9	10.3
Just to make it an alternative	8	9.2
For check up purposes only	4	4.6
Cost of treatment	3	3.4
My husband/relative commanded me	3	3.4
I may deliver at midnight and health facility is far	2	2.3
I prefer private hospitals	2	2.3
Had a health condition which made me to be referred	2	2.3
It is the mission/church that I and my significant others attend	2	2.3
Want to have a different experience	1	1.1
For safety reasons	1	1.1
To avoid issue of long queue	1	1.1
Government health facilities could go on strike	1	1.1
Government health facilities are better than Private	1	1.1
Prefer traditional medicine	1	1.1

*Multiple responses were allowed

4.4 Test of hypotheses

Hypothesis one

There is no significant association between respondents' socio-demographic characteristics (age, marital status, type of family, religion, education, level of education, occupation, partner education and partner occupation), previous pregnancy and knowledge of ANC.

Analysis to test for socio-demographic relationship with knowledge of ANC revealed that there was a significant association between respondents' occupation, age group, religion, having had previous pregnancy, partner's level of education, partner's occupation and knowledge. Whereas, the association between respondents' marital status, type of family, education, level of education and knowledge was not statistically significant (Tables 4.13 and 4.14).

Regression analysis (Table 4.15) of variables that were significant above revealed that respondents who were civil servants were more likely to have good knowledge of ANC compared to those who were unemployed (OR: 7.24, 95% CI: 1.32-39.66); those whose partners had no education were less likely to be knowledgeable about ANC compared to those whose partners had primary (OR: 4.70, 95% CI: 1.18-18.77), secondary (OR: 5.32, 95% CI: 1.43-19.83) or tertiary (OR: 5.14, 95% CI: 1.29-20.42) education. Age group, religion, having had previous pregnancy and partner's occupation did not remain significant; the significant association found at Chi-square was therefore due to chance alone.

Table 4.12: Association between socio-demographic characteristics and knowledge of ANC

Characteristics	Level of knowledge		Chi-square	P-value
	Poor	Good		
	No (%)	No (%)		
Type of family			1.90	0.17
Monogamy	120 (38.3)	193 (61.7)		P>0.05
Polygamy	37 (46.8)	42 (53.2)		
Marital status			4.25	0.12
Single	22 (56.4)	17 (43.6)		P>0.05
Married	157 (40.1)	235 (59.9)		
Cohabiting	42 (38.5)	67 (61.5)		
Religion			4.89	0.03
Christianity	65 (34.6)	123 (65.4)		P<0.05
Islam	155 (44.4)	194 (55.6)		
Age group (in years)			9.33	0.03
<25	85 (49.7)	86 (50.3)		P<0.05
25-29	65 (40.1)	97 (59.9)		
30-34	44 (33.6)	87 (66.4)		
>34	27 (35.5)	49 (64.5)		
Did you go to school			1.01	0.32
Yes	207 (40.4)	305 (59.6)		p>0.05
No	14 (50.0)	14 (50.0)		
Level of education			4.99	0.08
Primary	61 (44.2)	77 (55.8)		p>0.05
Secondary	121 (41.7)	169 (58.3)		
Tertiary	25 (29.8)	59 (70.2)		
Occupation			16.22	0.001
Business/Trading	126 (40.9)	182 (59.1)		P<0.05
Civil servants	2 (6.9)	27 (93.1)		
Artisan	72 (44.7)	89 (55.3)		
Unemployed	20 (50.0)	20 (50.0)		

Table 4.13: Association between socio-demographic characteristics and knowledge of ANC

Characteristics	Level of knowledge		Chi-square	P-value
	Poor	Good		
	No (%)	No (%)		
Partner's level of education			14.49	0.002
None	12 (80.0)	3 (20.0)		P<0.05
Primary	30 (45.5)	36 (55.5)		
Secondary	138 (41.6)	194 (58.4)		
Tertiary	40 (31.7)	86 (68.3)		
Partner's occupation			17.68	0.001
Business/Trading	66 (37.1)	112 (62.9)		P<0.05
Civil servants	9 (17.3)	43 (82.7)		
Artisan	109 (47.2)	122 (52.8		
Professionals	27 (44.3)	34 (55.7)		
Unemployed	8 (50.0)	8 (50.0)		
Is this your first pregnancy			6.45	0.01
Yes	77 (49.4)	79 (50.6)		P<0.05
No	141 (37.5)	210 (62.5)		

Table 4.14: Predictors of respondents' knowledge of ANC

Characteristics	p-value	Odds ratio (95% CI)
Religion		
Christianity	0.33	1.22 (0.82-1.83)
Islam*		
Age group (in years)		
<25	0.87	0.94 (0.47-1.89)
25-29	0.91	0.97 (0.52-1.78)
30-34	0.62	1.18 (0.63-2.21)
>34*		
Occupation		
Business/Trading	0.83	1.10 (0.47-2.56)
Civil servants	0.02	7.24 (1.32-39.66)
Artisan	0.69	1.20 (0.50-2.86)
Unemployed (students/housewives) *		
Partner's level of education		
None*	0.03	4.70 (1.18-18.77)
Primary	0.01	5.32 (1.43-19.83)
Secondary	0.02	5.14 (1.29-20.42)
Tertiary		
Partner's occupation	0.36	1.31 (0.69-2.50)
Business/Trading	0.05	2.59 (0.99-6.69)
Civil servants	0.71	0.89 (0.49-1.63)
Artisan		
Professionals*	0.95	1.05 (0.26-4.16)
Unemployed		
Is this your first pregnancy	0.09	0.64 (0.38-1.07)
Yes		
No*		

*Reference category

Hypothesis two

There is no significant association between respondents' socio-demographic characteristics (age, marital status, income, type of family, religion, education, level of education, occupation, partner education and partner occupation), previous pregnancy and ANC seeking behaviour.

Registration for ANC was significantly associated with respondents' marital status, education, income and partner's educational qualification but not with type of family, age, religion, level of education, occupation, having had previous pregnancy and partner's occupation (Tables 4.15 and 4.16).

Hypothesis two

There is no significant association between respondents' socio-demographic characteristics (age, marital status, income, type of family, religion, education, level of education, occupation, partner education and partner occupation), previous pregnancy and ANC seeking behaviour.

Registration for ANC was significantly associated with respondents' marital status, education, income and partner's educational qualification but not with type of family, age, religion, level of education, occupation, having had previous pregnancy and partner's occupation (Tables 4.15 and 4.16).

Table 4.15: Association between socio-demographic characteristics and ANC seeking behaviour

Characteristics	Registered for ANC		Chi-square	P-value
	Yes	No		
	No (%)	No (%)		
Type of family			0.57	0.45
Monogamy	267 (85.3)	46 (14.7)		P>0.05
Polygamy	70 (88.6)	9 (11.4)		
Marital status			19.68	<0.001
Single	23 (59.0)	16 (41.0)		P<0.05
Married	337 (86.0)	55 (14.0)		
Cohabiting	85 (78.0)	24 (22.0)		
Religion			0.21	0.65
Christianity	157 (83.5)	31 (16.5)		P>0.05
Islam	286 (81.9)	63 (18.1)		
Age group (in years)			2.26	0.52
<25	134 (80.1)	34 (19.9)		P>0.05
25-29	131 (80.9)	31 (19.1)		
30-34	112 (85.5)	19 (14.5)		
>34	65 (85.5)	11 (14.5)		
Did you go to school			4.31	0.04
Yes	426 (83.2)	86 (16.8)		P<0.05
No	19 (67.9)	9 (32.1)		
Level of education			4.43	0.11
Primary	110 (79.7)	28 (20.3)		P>0.05
Secondary	240 (82.8)	50 (17.2)		
Tertiary	76 (90.5)	8 (9.5)		
Occupation			1.05	0.79
Business/Trading	253 (82.1)	55 (17.9)		P>0.05
Civil servants	26 (89.7)	3 (10.3)		
Artisan	133 (82.6)	28 (17.4)		
Unemployed (students/housewives)	33 (82.5)	7 (17.5)		

Table 4.16: Association between socio-demographic characteristics and ANC seeking behaviour

Characteristics	Registered for ANC		Chi-square	P-value
	Yes	No		
	No (%)	No (%)		
Income			11.29	0.001
<10,000 Naira	236 (78.1)	66 (21.9)		P<0.05
≥10,000 Naira	176 (89.8)	20 (10.2)		
Partner's level of education			8.76	0.03
None	13 (86.7)	2 (133)		P<0.05
Primary	47 (71.2)	19 (28.8)		
Secondary	274 (82.5)	58 (175)		
Tertiary	111 (88.1)	15 (11.9)		
Partner's occupation			6.10	0.19
Business/Trading	153 (86.0)	25 (14.0)		P>0.05
Civil servants	46 (88.5)	6 (11.5)		
Artisan	186 (80.5)	45 (195)		
Professionals	48 (78.7)	13 (21.3)		
Unemployed	11 (68.8)	5 (31.2)		
Is this your first pregnancy			0.01	0.91
Yes	129 (82.7)	27 (17.3)		P>0.05
No	316 (82 3)	68 (17.7)		

Hypothesis three

There is no significant association between respondents' knowledge of ANC and ANC seeking behaviour.

Chi-square results as seen on Table 4.17 revealed that there was a direct relationship between knowledge and registration for ANC; as knowledge increased, registration for ANC also increased. This relationship was statistically significant.

Table 4.17: Association between knowledge and ANC seeking behaviour

Variables	Registered for ANC		Chi-square	P-value
	Yes (%)	No (%)		
Knowledge of ANC			21.39	<0.001
Good knowledge	283 (88.7)	36 (11.3)		P<0.05
Poor knowledge	162 (73.3)	59 (26.7)		

In the regression analysis to identify the factors that influenced ANC seeking behaviour among the respondents, only income and knowledge of ANC remained significant (see Table 4.18). Results of regression analysis revealed that:

Respondents who had a monthly income of ₦10,000 and above were more likely to have registered for antenatal care compared to those who had a monthly income of less than ₦10,00 (OR: 1.96, 95% CI: 1.11-3.45)

Respondents with good knowledge of the components of antenatal care were more likely to seek for antenatal care compared with those who had poor knowledge (OR: 2.50, 95% CI: 1.52-4.11).

Table 4.18: Factors that influenced respondents' ANC seeking behaviour

Characteristics	p-value	Odds ratio (95% CI)
Marital status		
Single	0.16	2.00 (0.76-5.30)
Married	0.30	0.73 (0.40-1.32)
Cohabiting*		
Did you go to school		
Yes	0.10	0.44 (0.17-1.17)
No*		
Income		
<10,000 Naira*	0.02	1.96 (1.11-3.45)
≥10,000 Naira		
Partner's level of education		
None*	0.08	4.85 (0.85-27.51)
Primary	0.23	2.78 (0.52-14.81)
Secondary	0.26	2.73 (0.47-15.82)
Tertiary		
Knowledge of ANC	<0.001	2.50 (1.52-4.11)
Good knowledge		
Poor knowledge*		

*Reference category

CHAPTER FIVE

DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.1 Socio-demographic characteristics

The age range of respondents in this study (16-50 years) compares well with that of the National Demographic Health Survey respondents (NPC and ICF International, 2014) and Akanbiemu, Manuwa-Olumide, Fagbamigbe and Adebowale (2013) which was 15-49 years. A large proportion (54.3%) of the women in this study were within the age range of 25-34 years, a finding which although higher, is similar to the 49.7% reported by Asfawosen, Mussie, Huruy and Wondeweson (2014) in their study to understand the factors associated with maternal health care services. Respondents' mean age in this study is consistent with that of Dairo and Owoyokun (2010) who reported a mean age of 27.8±5.6.

More than half of the women in Asfawosen et al. 2014's study were illiterates and housewives; a contrary finding to that of this study in which only 5.2% did not attend school and only 7.4% were housewives. Spousal characteristics in Asfawosen et al.'s 2014 study revealed that only 5.7% of the husbands obtained secondary education and above, contrary to this study in which eighty five percent of respondents' partners had secondary education and above. This disparity in educational attainment between this study and Asfawosen et al. (2014)'s study may be explained in terms of location of study area. While this study was conducted among women living in the slums of an urban local government area, 76.1% of their respondents were resident in rural areas

Contrary also to this study's finding on educational attainment, the National Demographic Health Survey revealed that among females in Oyo state, 24.9% do not have formal education, 11.9% completed primary, 15.2% completed secondary while 8.7% had more than secondary education. Almost the same proportion of women in this study (16.4%) and Akanbiemu et al's (2013) study (16.5%) attained tertiary education. Consistent with the NDHS data that more females than males have not attended school (40% versus 30%), this study similarly documented a disparity in school attendance between respondents (5.2%) and

their partners (2.2%) (NPC and ICF International, 2014). Many of the respondents were Yoruba; this was expected since this study was conducted in the South West which is predominantly inhabited by this ethnic group. Majority of the women were Muslims; indicating the kind of religion being chiefly practiced in the study area. The level of income of respondents in this study indicates a low economic power.

Majority of the women in this study were married which indicates that marriage is nearly universal among the respondents and this compares well to Akanbiemu et al.'s (2013) study as well as Nigeria as a whole. The NDHS illustrated that the universality of marriage in Nigeria probably reflects the social and economic security marriage is perceived to provide (National Population Commission, 1998). However, while the National Demographic Health Survey revealed that only 2.0% of women were cohabiting, this study found as many as 20.2% living in such union.

The median age at marriage in this study is higher than in the NDHS and this difference may have been influenced by age at marriage disparities between place of residence, geo-political zones and States as documented in the NDHS. According to the NDHS data, the median age at marriage among women is four years higher among those living in urban areas (20.8 years) than among those residing in rural areas (16.6 years). By zone, the lowest median age at marriage among women is observed in the North West (15.3 years) while the highest is in the South East (22.7 years). In the South West zone where this study was conducted, mean age at marriage among women was 21.8 years. Among the states, the median age at marriage is as low as 14.4 years in Zamfara but as high as 20.3 years in Oyo State where this study population belonged to. The median age at marriage in the South West zone and Oyo State is consistent with that of this study. It has been noted that Nigerian men enter into marriage at a later age than women (NPC and ICF International, 2014), a finding that was also well documented in this study.

The number of women in monogamous relationships was higher in this study (79.8%) than in the National Demographic Health Survey which revealed that 67% of all married women

75.4% of women in the South West and 69.5% of those from Oyo State reported that their husbands had no other wives (NPC and ICF International, 2014). Business/trading was the predominant occupation among women in this study, a finding which is consistent with the 56.8% reported in Akanbiemu et al.'s (2013) study. The proportion of unemployed respondents in this study is also consistent with the above authors' study.

5.2 Respondents' Knowledge of ANC

Fifty nine percent of the respondents in this study had good knowledge of ANC. This proportion is similar but lower than 63.0% reported by Akanbiemu et al. (2013). Also consistent with Akanbiemu et al.'s (2013) findings, majority of the respondents in this study knew that birth preparedness was a component of ANC. This also reflected in the focus group discussion when one of the respondents said that'

'ANC is for pregnant women, like, firstly, at least, by three month she should come and register. So that she can know the condition in which the baby is. At least, if there is a problem, they will know what to do to it because the baby might be in a position that is not ok. If one registers early, they will know what to do, whether to give injection or anything that they will do it so that they can protect the pregnant woman. But, the pregnant woman, she should come for ANC because so that when she wants to deliver, she will be free so that she won't trouble herself and the person that will aid her during her delivery. All the food that she is supposed to be eating, whether drugs and everything. All what she is supposed to be doing. They will explain everything. At least, three month at most, like what they do tell us, she should come and register. They will be able to do proper care on her and she will be able to deliver'

On the other hand, while majority of Onasoga, Afolayan and Oladimeji (2012) and Akanbiemu et al.'s (2013) respondents knew that assessment of risk in pregnancy, complication preparedness and immunization were among ANC components, not many respondents in this study knew these components.

In consistence with this study in which majority of the respondents knew that physical examination, urine examination and blood pressure measurement were part of the tests carried out during ANC, respondents in the study conducted by Akanbiemu et al (2013) also mentioned these tests. This is also corroborated by the focus group discussion where some of the respondents mentioned the tests. According to one respondents,

> *'During ANC, they do press our stomach, they do test our urine, they do check blood pressure, and we do check our weight on the scale. What again ... and they do test our blood'*. Another respondents said *'when we come here, they do press our stomach, and if we complain to them, if there is a need for medicine, they will give us and if it requires injections, they will write it for us and they will give us the complete dose of the injections'*

Knowledge about screening for HIV was average while that of screening for syphilis, malaria and height measurement was poor. Poor knowledge of these services highlights a lack of proper information and understanding about the services received during ANC and also calls to question the professional conduct of health providers in seeking voluntary and informed consent from women seeking antenatal care services.

It is encouraging that most of the respondents knew that ANC should be carried out by a skilled health worker. The importance of ANC being carried out by a skilled health worker cannot be over-emphasized and as rightly expounded by NPC and ICF International (2014), antenatal care provided by a skilled health worker enables early detection of complications and prompt treatment (detection and treatment of sexually transmitted infections), prevention of diseases through immunisation and micronutrient supplementation, birth preparedness and complication readiness and health promotion and disease prevention through health messages and counselling for pregnant women. All of these constitute components of ANC, many of which were mentioned by the respondents.

According to the NDHS (2013) data, the content of antenatal care is an essential component of the quality of services. Focused antenatal care hinges on the principle that every pregnancy is at risk of complications. One of such complications is the position of the child in the womb which is always observed during ANC. In the focus group discussion, one of the respondents said

> *'during ANC they check our stomach so that she can know the condition the child is inside the stomach because, some unborn child do bend inside or for someone that do bleed, that blood do come out every time. If such person is at home, she won't be able to know what she is to use with all what that is happening. But if she starts early, they will be able to rescue her on time, so that her delivery day won't be a problem for her'.*

Therefore, apart from receiving basic care, every pregnant woman should be monitored for complications. Therefore, ensuring that pregnant women receive information on the symptoms of complications or the danger signs of pregnancy, along with screening for complications are a routine part and components of all antenatal care visits (NPC and ICF International, 2014).

Respondents' knowledge was influenced by occupation and partner's educational attainment. This finding was similar to that of Akanbi mu et al. (2013) in which civil servants were more likely to have good knowledge of ANC. However, while this study found that respondents whose partners had no formal education were less likely to have good knowledge, the authors reported that husbands of their respondents who had no formal education were more likely to have good knowledge of ANC.

5.3 Antenatal Practices of respondents

5.3.1 Antenatal practices relating to previous Pregnancy

Contrary to the finding of this study in which most (92.2%) of the women received ANC during their last pregnancy, a study conducted in Dhaka city, Bangladesh found that 64.3% of their respondents received ANC at last pregnancy (Kabir and Khan, 2013). The reason for

this disparity is not clear since both studies were conducted among pregnant women living in urban slums but it may be associated with the fact that it has been established that due to poverty, low level of education and lack of accessibility among women of reproductive ages in Dhaka city, health service utilization is very low (Kabir and Khan. 2013).

It is noteworthy that respondents knew the benefits of ANC as observed in their responses on why they decided to utilize ANC; health benefits and assurance of a normal pregnancy are indeed consequential reasons for seeking ANC. The major objective of antenatal care is to ensure optimal health outcomes for the mother and her baby. This is corroborated by the focus group discussion where one of the pregnant women has this to say about why they attend ANC ' *We come to ANC so that we can know the health challenges of the baby inside us. So that we can know the condition the baby is. And so that we can be in good health and being totally healthy. That's why it is good for a pregnant woman to start ANC*'. Antenatal care from a trained provider is important to monitor the pregnancy and reduce morbidity risks for the mother and child during pregnancy and delivery.

More respondents in this study received ANC in a government health facility compared to the study conducted by Dairo and Owoyokun (2010) while more (28%) respondents in these authors' study utilized a private hospital for ANC compared to this study (14.2%). The major reasons for the choice of ANC facility in this study were perception of quality of care and proximity of the facility, a finding which underscores the importance of satisfaction in healthcare services offered and equity in the distribution of health facilities. In the focus group discussion, one of the pregnant women said

> *'from where I come from, it is Oranyan here that we use, because of the care and treatment they give people and on the delivery day, they care and attend to person very well so that there won't be problems for someone. So it is this place that we use all the time'*

According to another respondents in a long statement,

Financial cost, long waiting time, attitude of healthcare providers, distance to health facility and religious reasons were some of the reasons adduced by respondents in this study for non-utilization of ANC services. According to another respondent in the FGD.

> *'You know, there are many general hospitals around; an individual will see that she can't afford the transportation fare and will decide to go to where is near to her. And some people don't care about the treatment that they will give her. It is the transportation fare that some people consider, so there are many places that people go to'*

This and other reasons were also well documented in Dairo and Owoyokun's (2010) study. In agreement with the result of this study the NDHS (2013) also reported that the source of antenatal care were mainly nurses/midwives followed by doctors (NPC and ICF International, 2014).

5.3.2 Antenatal practices relating to index pregnancy

Majority of the women in this study planned the pregnancy and this result is in agreement with the Indian study conducted by Gill and Devgun (2013). As part of the care received during ANC visits, women in this study disclosed that they had their weight, height and blood pressure measured; they also had urine and blood tests. Some of these tests were also mentioned in the focus group discussion. According to a respondent that participated in the FGD.

> *'Since I started coming for the ANC, they did PCV (blood test) for us, urine test and HIV test, it seems those are the 3 tests that they did for us'.*

The study by Kabir and Khan (2013) revealed a similar finding of being weighted when pregnant (57.2%), height measured when pregnant (35.8%), blood pressure taken when pregnant (56.3%) and urine test when pregnant (36.6%). Consistent also with this study is the study conducted by Dairo and Owoyokun (2010) in which majority of respondents received tetanus toxoid injection as part of ANC services. This finding - and well supported by the NDHS 2013 findings - indicates that ANC components and examinations like urine test,

blood test, blood pressure measurement and tetanus toxoid vaccination is increasingly becoming routine in Nigerian health facilities.

Contrary to the result of this study in which majority of the women registered for ANC in the second trimester (4-6 months), Onasoga et al. (2012) reported that majority of their respondents registered in the first trimester. About 10% of the respondents in this study did not even register for ANC until the third trimester thus indicating late presentation for ANC, a behaviour which can be considered disheartening and risky for maternal and foetal health outcomes. Late presentation may be associated with cultural beliefs relating to early identification of pregnancies which could be negative for maternal outcomes. This was elaborated by one of the respondents that participated in the FGD when she was explaining why a pregnant woman should register early. According to her,

> *'the reason is that, you know that when one comes maybe in the first month or when the pregnancy is like 3 months old, they will give you a proper care, for example, when pregnancy is three months old, there is an injection that they will give someone when it is 4 months, when it is 6 months old, and the way they do tell us here that when it is 9 months old that there is no injection they can give again. So it pays that one should come early so that you can get the injection on time and complete. It pays to come early before nine months because which kind of injection will they give such person before she delivers. So that is what I can say that one should always come early to start ANC'.*

Another reason women book late is to avoid going for many ANC visits particularly in circumstances where the facility is quite far and there are no reliable means of transport (Gharoro and Igbafe, 2000; Mpemben, Killewo, Leshabari, Massawe, Jahn et al., 2007) but the gains of early booking far outweighs these. Antenatal care especially when sought early allows regular checkups for the health of the pregnant woman and early interventions incase of any complications (Mpemboni et al., 2007).

Findings from this study revealed that majority of the respondents reported that their service provider proposed a monthly ANC visit until the 28th week, fortnightly visit until 36 weeks and thereafter weekly visit until delivery. This frequency of ANC visits is not in line with the

Nigeria antenatal care policy which follows the WHO approach to promoting safe pregnancies, recommending at least four ANC visit for women without complications. This approach, called focused antenatal care, emphasizes quality of care during each visit instead of focusing on the number of visits. The recommended schedule of visits is as follows: the first visit should occur by the end of 16 weeks of pregnancy, the second visit should be between 24 and 28 weeks of pregnancy, the third visit should occur at 32 weeks, and the fourth visit should occur at 36 weeks However, women with complications, special needs, or conditions beyond the scope of basic care may require additional visits (NPC and ICF International. 2014).

Contrary to the result of this study which revealed that age was not significantly associated with receiving ANC, age was an important determinant whether or not to receive ANC in the study carried out by Kabir and Khan (2013). However, the authors' finding of an association between income and receiving ANC is consistent with this study.

5.4 Implication of the study for Reproductive Health Education

Pregnancy is potentially risky for all women worldwide. Millions more women survive but suffer from illness and disability related to pregnancy and childbirth. Antenatal care provide pregnant women the opportunity to abate severity of pregnancy related complications through monitoring and prompt treatment. Antenatal care is a type of preventative care with the goal of providing regular check-ups that allow doctors or midwives to treat and prevent potential health problems throughout the course of the pregnancy while promoting healthy lifestyles that benefit both mother and child.

The findings of this study provide important information on antenatal health seeking behaviour among pregnant women in urban slums of Ibadan South East Local Government Area, Nigeria with great implication on reproductive life of pregnant and nursing mothers. Although a little more than halve of the respondents had good knowledge of ANC, a significant proportion had poor knowledge of ANC. Knowledge of screening done during ANC is especially poor. This highlights that there is poor and inadequate information and understanding of the screening services received during ANC. Knowledge of screening for

STIs and HIV/AIDS is very important and has implication for reproductive health. Pregnant women should have more information education about STIs especially HIV/AIDS, how it can be transmitted, prevented and managed. This calls for planning and development of behavioural communication and education programme that will be aimed at improving the knowledge of ANC. This study also revealed that antenatal care utilisation was significantly lower among women who earned a monthly income of less than 10,000 Naira and those who had poor knowledge of antenatal care. This shows a dire need to further subsidize the registration fees and also offer economic strengthening and support for those that cannot afford ANC services.

5.5 Conclusion

This research assessed the antenatal care health seeking behaviour among pregnant women living in urban slums of Ibadan South East Local Government Area of Oyo State. The study also sought to understand respondents' knowledge of ANC as well as the influence of socio-demographic characteristics and knowledge on ANC seeking behaviour.

A significant proportion of the respondents had good knowledge of antenatal care. Occupation and partner's level of education had a significant influence on knowledge of antenatal care while age and previous pregnancy did not significantly influence knowledge of antenatal care. Registration for antenatal care as part of antenatal care seeking behaviour was influenced by respondents' income and knowledge of antenatal care: antenatal care utilisation was significantly lower among women who earned a monthly income of less than 10,000 Naira and those who had poor knowledge of antenatal care.

5.6 Recommendations

1. Health education strategies and methods such as brainstorming, role play, counselling, demonstration and return demonstration that will ensure better communication between pregnant women and health care providers is also pertinent and should be embarked upon. This will ensure that women do not just go to receive antenatal care but have an understanding of what they are receiving through improved knowledge.

education should ensure that detailed communications about what women are being given and should be done simultaneously with the time consent is taken to administer antenatal care services to the women and also during consultation with the doctors.

2. It is also imperative that the women are educated on the importance of early booking for antenatal. This can be achieved using appropriate Information. Education and Communication (IEC) materials with appropriate pictorial diagrams to aid comprehension and retention.

3. It is necessary that the reasons adduced for non-utilisation of antenatal care by the women be tackled through social support initiatives and poverty alleviation programmes as well as scaling up interventions programme to reach urban-slums populations through community-based strategies are needed to address this phenomenon.

4. It is imperative for government at all levels to monitor and evaluate the antenatal care services being offered to women and ensure compliance with the focused antenatal care and the nation's antenatal care policy. This policy should also be implemented in a way that will suit the demographic characteristics of the women.

REFERENCES

Aboyeji, A.P., Ijaiya, M.A. and Fawole, A.A. 2007.Maternal Mortality in a Nigerian Teaching Hospital – a Continuing Tragedy. *Tropical Doctor*37: 83-85.

AbouZahr, C. and Wardlaw, T. (2003). Maternal Mortality in 2000: Estimates Developed by WHO, UNICEF and UNFPA. Geneva: WHO (2004) Available at http://www.who.int/reproductivehealth/publications/maternal_mortality_2000/mmc.pdf

Adam, T., Lim, S.S., Mehta, S., Bhutta, Z.A., Fogstad, H., Mathai, M., Zupan, J. and Darmstadt, G.L. 2005. *Cost effectiveness Analysis of Strategies for Maternal and Neonatal Health in developing Countries*. BMJ 331 (7525): 1107.

Adebola Adedimeji, Nareen Abboud, Behailu Merdekios, and Miriam Shiferaw (2012). A Qualitative Study of Barriers to Effectiveness of Interventions to Prevent Mother-to-Child Transmission of HIV in Arba Minch, Ethiopia. *International Journal of Population Research* Article ID 532154, http://dx.doi.org/10.1155/2012/532154.

Akanbiemu, F.A., Manuwa-Olumide, A., Fagbamigbe, A.F. and Adebowale, A.S. 2013. Effect of Perception and Free Maternal Health Services on Antenatal Care Facilities Utilizationin Selected Rural and Semi-Urban Communities of Ondo State, Nigeria. *British Journal of Medicine & Medical Research*3 3: 681-69.

Alam, A.Y., Qureshi, A.A., Adil, M.A. and Ali, H. 2001. Factors affecting utilization of Antenatal Care among women in urbansluni areas of Islamabad. *Rawal Medical Journal*: 71-75

Ankunda R.,Arinaitwe, M., Ekirapa-Kiracho, E., Bakeera, S., Mutebi, A. and Kiwanuka, S.N. 2008. Women's Perceptions of ANC and Delivery Care Services. A Community Perspective Retrieved Dec 11, 2014, from http://www.musph.ac.ug

Asfawosen, A., Mussie, A., Hunuy, A. and Wondeweson, T. 2014. Factors Associated with Maternal Health Care Services in Endcrta District, Tigray, Northern Ethiopia: A Cross Sectional Study. *American Journal of Nursing Science* 3.6: 117-125.

Babalola, S. and Fatusi A. 2009.Determinants of Use of Maternal Health Services in Nigeria-looking beyond Individual and Household Factors.*BMC pregnancy and childbirth* 9: 43

Banerjee, B.A. 2003. Qualitative Analysis of Maternal and Child Health Services of an Urban Health Centre, By Assessing Client Perception In Terms of Awareness, Satisfaction and Service Utilization *Indian Journal of Community Medicine* 28.4

Boniface Tatchwenglic Nasah. J. K. G. Mati, Joseph M. Kasondc. 1994. Contemporary Issues in Maternal Health Care in Africa. Chapter 13. https: // books .google.com.ng /books? Isbn =3718655608

Bulatao, R. A., Ross, J. A., & Street, W. F. (2000). Rating Maternal and Neonatal Health Programs in Developing Countries. *MEASURE Evaluation*. 1–56.

Campbell, O.M.R. and Graham, W.J. 2006. Strategies for reducing maternal mortality: getting on with what works. *Lancet*368 9543:1284–1299.

Choudhary, R., Sharma, A., Agarwal, K.S., et al. 2002. Building for the future: influence of housing on intelligence quotients of children in an urban slum. *Health Policy Plan* 17:420-424.

Daico, M.D. and Owoyokun, K.E. 2010. Factors Affecting The Utilization Of Antcoatal Care Services In Ibadan, Nigeria. *Benin Journal of Postgraduate Medicine*12.1: 3-13

Eggleston, E. 2000. Unintended Pregnancy and Women's Use of Prenatal Care in Ecuador. *Social Science and Medicine* 51: 1011-1018.

Federal Ministry of Health (2007) Planning and Programming Department Health Sector Strategic Plan (HSDP-III) 2007/6-2009/10.

Fotso.J.C., Ezeh. A. and Oronje, R. 2008.Provision and Use of Maternal Health Services among Urban Poor Women in Kenya: What Do We Know and What Can We Do? *Journal of Urban Health: Bulletin of the New York Academy of Medicine*85.3: 428-442

Gharoro, E.P. and Igbafe, A.A. 2000. Antenatal care: some characteristics of the booking visit in a major teaching hospital in the developing world. *Medical Science Monit* 6:519-522.

Gill, K.P. and Devgun, P. 2013. Socio-Demographic Factors influencing Antenatal Care Practices in Urban Slums of Amritsar City, Punjab, India. *National Journal of Community Medicine* 4.4: 574-578.

Gunilla L., Franz M., and Beth M.A. (1998). A qualitative study of women's perspectives of antenatal care in a rural area of Zimbabwe

Hughart, N., Silimperi, D.R. and Khatun, J. 1992. A new EPI strategy to reach high risk urban children in Bangladesh urban volunteers. *Trop Geogr Med*44:142–148.

Hussain, I. and Hoque, M.M. 2005. Determinants of choices of delivery care in some urban slums of Dhaka city. *Pakistan Journal of Social Sciences* 3.3: 469-475.

Ibnouf. A.H., van den Borne, H.W. and Maarse J. A. 2007. Utilization of Antenatal Care Services by Sudanese Women in their Reproductive Age. *Saudi Medical Journal* 28.5: 737-743.

Ikenna. E. F. (2015). Health Care-Seeking Behaviour During Pregnancy Among Women Of Akinyele Local Government Area , Oyo State , Nigeria. *Journal of Novel Applied Sciences*, 4(1966), 1180-1186.

Iyaniwura, C.A and Yusuf Q. 2009.Utilization of Antenatal Care and delivery services in Sagamu, south western Nigeria. *African Journal of Reproductive Health* 13.3: 111-122.

Jeong-Hwan Park, Deborah Vincent and Mary Hastlings-Tolsma (2007). Disparity in prenatal care among women of colour in the USA. *Midwifery* 23(1): 28-37. DOI: 10.1016/j.midw.2005.08.002

Kabir, M., Iliyasu, Z., Abubakar, I.S. and Sani, A.A. 2005. Determinants of Utilization of Antenatal Care Services in Kumbotso village, northern Nigeria. *Tropical Doctor* 35.2: 110-111.

Kabir, R and Khan, H.T.A. 2013. Utilization of Antenatal care among pregnant women of Urban Slums of Dhaka City, Bangladesh. *IOSR Journal of Nursing and Health Science* 2.2: 15-19

Kulkarni, M.S. and Nimbalkar, M.R. 2008.Influence of Socio-Demographic Factors on the Use of Antenatal Care. *Indian Journal of Preventive and Social Medicine* 39.3&4: 99-102

Leslie Kish Formula. Kish, Leslie (1965). *Survey Sampling*. New York: Wiley.

Lubbock. LA SR. 2008. Utilization of maternal health care services in the department of Matagalpa, Nicaragua. *Rev Panam SaludPublica* 24.2:75-84.

Madhiwalla N. 2007. Healthcare in urban slums in India. *India National Medical Journal*20:113–114.

Magadi, M.A., Madise, N.J. and Rodrigues, R.N. 2000. Frequency and timing of antenatal care in Kenya: explaining the variations between women of different communities. *SocSci Med* 51.4:551–561.

Magadi, M.A., Zulu, E.M. and Brockerhoff, M. 2003. The inequality of maternal health care in urban sub-Saharan Africa in the 1990s. *Population Studies* 57.3:347-366.

McCarthy and Maine, 1992. A framework for analyzing the determinants of maternal mortality. *Stud Fam Plann.* 23(1):23-33

Meyers J, Lobis S, Dakkak H,. (2004): UN process indicators: key to measuring maternal mortality reduction. FMR. 19:16–18

Mills, S. and Bertrand, J.T. 2005. Use of Health Professionals for Obstetric Care in Northern Ghana.*Stud FamPlann*36.1:45–56.

Monica, A.M.,Eliya, M.Z. and Martin, B. 2003. The Inequality of Maternal Health Care in Urban sub-Saharan Africa in the 1990s. *Population Studies* 57.3: 347-366.

Moshiur R. 2008. Rural–urban differentials of utilization of ante-natal health care services in *Bangladesh Health policy and Development Journal* 6: 3.

Mpembeni, R.N.M, Killewo, J.Z., Leshabari, M.T., Massawe, S.N., John, A., Mushi, D and Mwakipa, H. 2007. Use pattern of maternal health services and determinants of skilled care during delivery in Southern Tanzania: implications for achievement of MDG-5 targets. *BMC Pregnancy and Childbirth* 7: 29

National HIV/AIDS and Reproductive Health Survey (NARHS) (2007). Federal Republic Of Nigeria Federal Ministry of Health Abuja, Nigeria

National Institute of Population Research and Training (NIPORT), Ministry of Health and Family Welfare, ORC Macro, Calverton, Maryland, USA and Johns Hopkins University, USA (March 2002). Bangladesh Maternal Health Services and Maternal Mortality Survey 2001.

National Population Commission (NPC) and ORC Macro. 2009. *Nigeria Demographic and Health Survey.* Calverton, Maryland: NPC and ORC Macro.

National Population Commission. 1998. *Population Census of the Federal Republic of Nigeria: Analytical report at the national level.* Abuja, Nigeria: National Population Commission.

Ngonjane, S., Mulaudzi, F. M., (2010) Indigenous beliefs and practices that influence the delayed attendance of Ante-natal clinics by women in the Bohlabelo district in South Africa

Nisar, N. 2003. White F. Factors affecting utilization of Antenatal Care among reproductive age group Women (15-49 years) in an urban squatter settlement of Karachi. *Journal of Pakistan Medical Association*53: 47

McCarthy and Maine, 1992. A framework for analyzing the determinants of maternal mortality. *Stud Fam Plann.* 23(1):23-33

Meyers J, Lobis S, Dakkak H,. (2004): UN process indicators: key to measuring maternal mortality reduction. FMR, 19:16-18

Mills, S. and Bertrand, J.T. 2005. Use of Health Professionals for Obstetric Care in Northern Ghana.*Stud FamPlann*36.1:45–56.

Monica, A.M.,Eliya, M.Z. and Martin, B. 2003. The Inequality of Maternal Health Care in Urban sub-Saharan Africa in the 1990s. *Population Studies* 57.3: 347-366.

Moshiur R. 2008. Rural-urban differentials of utilization of ante-natal health care services in *Bangladesh Health policy and Development Journal* 6: 3.

Mpembeni, R.N.M, Killewo, J.Z., Leshabari, M.T., Massawe, S.N., John, A., Mushi, D and Mwakipa, H. 2007. Use pattern of maternal health services and determinants of skilled care during delivery in Southern Tanzania: implications for achievement of MDG-5 targets. *BMC Pregnancy and Childbirth* 7: 29

National HIV/AIDS and Reproductive Health Survey (NARHS) (2007). Federal Republic Of Nigeria Federal Ministry of Health Abuja, Nigeria

National Institute of Population Research and Training (NIPORT), Ministry of Health and Family Welfare, ORC Macro, Calverton, Maryland, USA and Johns Hopkins University, USA (March 2002). Bangladesh Maternal Health Services and Maternal Mortality Survey 2001.

National Population Commission (NPC) and ORC Macro. 2009. *Nigeria Demographic and Health Survey.* Calverton, Maryland: NPC and ORC Macro.

National Population Commission. 1998. *Population Census of the Federal Republic of Nigeria: Analytical report at the national level.* Abuja, Nigeria: National Population Commission.

Ngomane, S., Mulaudzi, F. M., (2010) Indigenous beliefs and practices that influence the delayed attendance of Ante-natal clinics by women in the Bohlabelo district in South Africa

Nisar, N. 2003. While F. Factors affecting utilization of Antenatal Care among reproductive age group Women (15-49 years) in an urban squatter settlement of Karachi. *Journal of Pakistan Medical Association*53: 47

Nisar N and White F. 2008. Factors affecting utilization of antenatal care among reproductive age group women (15-49 years) in urban squarter settlement of Karachi. *Journal of Pakistan medical association* (JPMA) vol 53, No 2. Retrieved from http://www.jpma.org.pk on 20th April, 2015

NPC and ICF International. 2014. *Nigeria Demographic and Health Survey 2013*. Rockville, Maryland, USA: National Population Commission.

Nuraini, E. and Parker, E. 2005. Improving Knowledge of Antenatal Care among Pregnant Women: A Field Trial in Central Java, Indonesia. *Asia-Pacific Journal of Public Health* 17.1: 3-8.

Onah, H.E., Ikeako, L.C. and Iloabachie, G.C. 2006. Factors associated with the use of maternity services in Enugu, southeastern Nigeria. *SocSci Med* 63.7:1870-1878.

Onasoga, O.A., Afolayan, J.A.and Oladimeji, B.D. 2012. Factors influencing utilization of antenatal care services among pregnant women in Ife Central Lga, Osun State Nigeria. *Advances in Applied Science Research* 3.3:1309-1315

Omella Lincetto, Seipati Mothebesoane-Anoh, Patricia Gomez, Stephen Munjanja (2012). Opportunities for Africa's Newborn. Antenatal care –World Health Organisation- www.who.int/pmnch/media/publication/aonsection iii_2.pdf

Pryer, J.A., Rogers, S., Normand, C., et al. 2002. Livelihoods, nutrition and health in Dhaka slums. *Public Health Nutrition* 5:613-618.

Regassa, N. 2011. Antenatal and postnatal care service utilization in southern Ethiopia: a population-based study. *African Health Sciences* 11.3: 390-397

Royston, E. and S. Armstrong. 1989. *Preventing Maternal Deaths*. Geneva: World Health Organization. In Wall L.L. 1998. Dead Mothers and Injured Wives: The Social Context of Maternal Morbidity and Mortality among the Hausa of Northern Nigeria. *Studies in Family Planning* 29.4: 341-359.

Shaikh and Hatcher, 2005 Health seeking behaviour and health service utilization in Pakistan: challenging the policy makers. J Public Health (Oxf). 2005 Mar,27(1):49-54. Epub 2004 Dec 8.

The Millenium Development Goals Report (2010). United Nations

Ujah, I.A.O., Aisien, O.A., Mohhir, J.T., Vanderjagt, D.J., Glew, R.H. and Ugunu, V.E. 2005. Factors Contributing to Maternal Mortality in North-central Nigeria: A Seventeen-year Review. *African Journal of Reproductive Health* 9.3: 27-40.

UN-Habitat. 2003 *The challenge of slums. Global Report on Human Settlements.* New York: United Nations.

UNICEF 2006. The state of the worlds children (2006). Excluded and invisible. For Every Child Health, Education. Equality, Protection. *Advance Humanity.*

UNICEF (2008) Progress for Children: A Report Card on Maternal Mortality, Number 7, September 2008. UNICEF, Division of Communication, New York, NY, USA

UNICEF 2009 The state of the world's children 2009: Maternal and newborn health where we stand

United Nations. 2014. *The Millennium Development Goals Report 2014.* New York: United Nations.

Urban Health Resource Centre (UHRC). 2006. Health of the urban poor in India. Key results from the National Family Health Survey. Retrieved Nov 12, 2014. from uhrc.in>name.CmodsDownload-index-resource

Tran T.K, Nguyen C.T.K, Nguyen H.D, Eriksson B, Bondjers G, Gottvall K, Ascher H and Petzold M. 2011. Urban-rural Disparities in antenatal Care Utilization: A Study of Two Cohort of Pregnant Women in Vietnam. *BMC Health Services Research*11:120.

Villar, J., Piaggio, G., Khan-Neelofur, D., Gulmezoglu, M., Mugford, M., Lumbiganon, P., Farnot, U. and Bersgjo, P. 2001. WHO antenatal care randomized trial for the evaluation of a new model of routine antenatal care. *Lancet*357:1551–1564.

Wall, L.L. 1998. Dead Mothers and Injured Wives: The Social Context of Maternal Morbidity and Mortality among the Hausa of Northern Nigeria. *Studies in Family Planning* 29.4: 341-359.

WHO, World Health Organization (2005). Factsheets Maternal Mortality.

WHO (2000).The World Health Report 2000 - Health systems: improving performance

WHO (2002). The World Health Report - Reducing Risks, Promoting Healthy Life

WHO. (2007). Prevention of Mother to Child Transmission, Briefing Note. 3. 4

WHO and UNICEF. 2003. Antenatal Care in Developing Countries: promises, achievements and missed opportunities: an analysis of trends, levels and differentials, 1990–2001. Retrieved Nov 12, 2014, from www.who.int/maternal_child_adolescent/documents/9241590947/ca/

WHO/UNFPA/UNICEF/World Bank. 1999. *Reduction of Maternal Mortality*. Geneva. World Health Organization

WHO, World Bank, UNICEF & UNFPA (2010). Packages of interventions for family planning, safe abortion care, maternal, newborn and child health WHO/FCH/10.06., *WHO Press*, World Health Organization, Geneva, Switzerland

World Health Organization. The World Health Report 2003. Shaping the future. Geneva. Switzerland: WHO; 2003. Retrieved Nov 12, 2014, fromhttp://www.who.int/whr/2003/en/whr03_en.pdf

Ye, Y., Yoshida, Y., Harun-Or-Rashid, M.D. and Sakamoto, J. 2010. Factors Affecting the Utilization of Antenatal Care Services among Women in Kham District, Xiengkhouang Province, Lao Pdr.*Nagoya J. Med. Sci*72: 23-33.

Zulu, E., Dodoo, F.N. and Ezeh, C.A. 2002. Sexual risk-taking in the slums of Nairobi, Kenya, 1993–98. *Population Studies*56:311–323.

APPENDIX I

QUESTIONNAIRE

Department of Health Promotion and Education, College of Medicine, University of Ibadan, Ibadan

INFORMED CONSENT

Title: Antenatal Care Health Seeking Behaviour among Pregnant Women in Urban Slums of Ibadan Southeast Local Government Area, Nigeria

Hello, my name is_____ a Masters of Public Health Student from the department of Health Promotion and Education (Population and Reproductive Health), College of Medicine, University of Ibadan I am carrying out a research study on "Antenatal Care Health Seeking Behaviour among Pregnant women in urban slums of Ibadan Southeast Local government Area, Nigeria". Am a trained data collector and am here to get your input regarding these study; antenatal care health seeking behaviour among pregnant women in this community.

I would very much appreciate your participation in this study. Information you provide will help influence how the government, policy makers and stakeholders will respond to improving maternal health.

Whatever information you provide will be kept strictly confidential.
Participation in this study is voluntary and you can choose not to answer any question you do not wish to answer. However, we hope that you will participate in this study since your views are important.

The interviewer administered questionnaire will take between 25 to 35 minutes to complete.
At this time, do you want to ask me anything about the study?
May I begin the interview now?

RESPONDENT AGREES TO BE INTERVIEWED [ ]

Signature of respondent.....Date.....

OR

Thumb Print of respondent.....Date.....

Signature of Interviewer.....

RESPONDENT DOES NOT AGREE TO BE INTERVIEWED, END INTERVIEW.

ANTENATAL CARE HEALTH SEEKING BEHAVIOUR AMONG PREGNANT WOMEN IN URBAN SLUMS OF IBADAN SOUTH EAST LOCAL GOVERNMENT AREA, NIGERIA

INTRODUCTION

My name is Omaye Matthew Ugbede a Masters of Public Health Student from the Department of Health Promotion and Education (Population and Reproductive Health Education), University of Ibadan. I am carrying out a study titled. *ANTENATAL CARE HEALTH SEEKING BEHAVIOUR AMONG PREGNANT WOMEN IN URBAN SLUMS OF IBADAN SOUTHEAST LOCAL GOVERNMENT AREA, NIGERIA.* Information gotten from this study will be useful in planning programmes to improve the use of maternal health services and thereby contribute to the promotion of positive health outcomes of women and children in Nigeria.

You are therefore invited to participate in this research, participation involve providing answers to the question below. Information provided will be safeguarded and used for research purposes only. This questionnaire would be interviewer administered for proper data collation.

Also, the research is risk free and participation is entirely voluntary.

Thanks for your cooperation.

.....

SECTION A SOCIO-DEMOGRAPHIC SECTION

1. Age at last birthday (in years)_____
2. Age at Marriage(in years)_____
3. Tribe

   1 Yoruba ☐ 2.Hausa ☐ 3.Igbo ☐ Others (Please Specify)_____
4. Religion

   1 Christianity ☐ 2. Islam ☐ 3. Traditional religion ☐

   4 Other (specify)_____
5. Did you go to school? ☐

   If Yes go to Q6

   If No skip to Q7

6. Highest level of education

1 Primary ☐ 2. Secondary ☐ 3.Tertiary ☐

4.No Formal Education ☐ 5. Others (Specify).....

7. Occupation:

Please Specify_____

8 Marital Status

1. Single ☐ 2. Married ☐ 3.Cohabiting ☐

4. Divorced ☐ 5.Widowed ☐ 6. Other (Specify)_____

9. If married, type of family

1. Monogamy ☐

2. Polygamy ☐

10. Years of marriage_____

11. Number of children_____

12. Average monthly income_____(Optional)

13. Type of residence

A. One room apartment ☐ B. Two room apartment ☐ C. Flat ☐

B. Others (Specify)_____

For married (skip if respondent is single)

14. Husbands' age at last birthday (in years)_____

15. Husbands age at marriage (in years)._____

16. Husband's highest level of education

1 Primary ☐ 2. Secondary ☐ 3.Tertiary ☐ 4. None ☐

17. Husband Main's Occupation

1. Unemployed ☐ 2. Trading ☐ 3. Artisan ☐

4. Civil servant ☐ 5. Professional ☐

18. Husband average monthly income_____(Optional)

SECTION C; ANTENATAL PRACTICES

19. Is this your first pregnancy?

1. Yes ☐ 2. No ☐

20 How many months pregnancy are you? Number of Months_____

21. At what period during pregnancy should a woman register for antenatal care?

1. First month of pregnancy ☐
2. Second month of pregnancy ☐
3. Third month of pregnancy ☐
4. Fourth month of pregnancy ☐
5. Fifth month of pregnancy ☐
6. Don't know ☐

22. Where is the best place for pregnant woman to receive antenatal care?

1. Public hospital ☐
2. Mission hospital ☐
3. Private hospital ☐
4. Private healthcare centre/clinic heahh post ☐
5. Traditional birth attendant ☐
6. Not receiving ANC ☐
7. Others ☐ Please Specify_____

23. Did you receive antenatal care during your last pregnancy?

1. Yes ☐ No ☐

If yes, skip question 24

24. What are your reason(s) for non utilization of ANC services?

Respond as follows: 1. Yes 2. No

S/N	REASONS	YES	NO
1	Financial Cost		
2	Husband's decision		

3	Consider ANC to be unimportant except when ill		
4	Distance to Health facility		
5	Traditional/cultural barriers		
6	Patronize Traditional Homes		
7	Non Availability of ANC		
8	Attitude of Care Provider		
9	Long Waiting Time		
10	Religious Reasons		
11	Others Pls. Specify		

25. What are the reasons why you used ANC?

SN	REASONS	YES	NO
1	Perceived health benefits		
2	Was ill during delivery		
3	To get vaccination		
4	To get reassurance of a normal pregnancy		
5	Other (Specify)		

26. When did you register for ANC? (Gestational age in weeks) _____

27. How many antenatal visits did your service provider propose?.....

28. How many antenatal visits did you make?.....

29. What type of facility was it?

1 Government ☐ 2. Private ☐ 3.Mission home 4. TBA ☐

5. Others (specify) _____

30. Were the main reasons for your choice (Tick as applicable)

S/N	REASON	YES	NO
1	Proximity		

2	Perception of quality of care		
3	Husband's preference		
4	Cultural demand		
5	Cost		
6	Religion		
7	Other (specify)		

31. Didyou deliver your previous child in the health facility used for ANC?

A. Yes ☐

B. No ☐

If no, why not? _____

FOR INDEX PREGNANCY;

32. Where did you register ANC for this pregnancy?

1. Government ☐ 2. Private ☐ 3. Mission home ☐

4. TBA ☐ 5. Others (specify)……

33. When did you register for ANC? (Gestational age in weeks) _____

34. Do you intend to give birth in the facility where you registered?

1. Yes ☐

2. No ☐

If No, skip to 35.

35. Reason for this preference ……

36. Why did you register in this facility since you don't intend to give birth there?……

37. What was the frequency of antenatal visits proposed by your service provider?

1. First visit between the 8th -12th week; second visit between the 24th -26th week; third visit during the 32nd week; fourth visit between the 36th -38th week; other visit after the 38th, as required. ☐
2. Monthly visit until the 28th week; fortnightly visit until the 36th week; weekly visit until delivery ☐
3. Others (Specify) ……

38 a. How often during the pregnancy did you go for ANC?

Visits to ANC clinic	ONCE	TWICE	THREE TIMES	FOUR TIMES	Others (Specify)

b. If different from schedule proposed by service provider, what were the reason(s) for the difference?

1. Financial constraints ☐
2. Absence of symptoms of ill- health ☐
3. Was not motivated due to poor quality of care received ☐
4. Others (Specify)……

KNOWLEDGE OF ANTENATAL CARE

Respond to the question in this section as follows: Tick as appropriate

39. What are the examinations carried out during ANC?

1. Blood pressure ☐
2. Monitoring of foetal growth and movement ☐
3. Monitoring of foetal malpresentation ☐
4. Monitoring ofmultiple pregnancy ☐

40 What are the tests carried out on you during antenatal care?

1 Blood test? ☐
2 Screening for syphilis? ☐
3 Screening for HIV? ☐
4 Screening for malaria? ☐
5 Urine test? ☐
6 Height measurement? ☐
7 Weight measurement? ☐

41. What are the treatments given to you during ANC?

1. a) Drugs to prevent malaria ☐
   b) If yes, how many doses did you receive?……

2. a) Tetanus toxiod vaccination ☐

b) If yes, how many doses did you receive?.....

3. Iron and folate supplementation ☐

4. Deworming medications ☐

5. Antiretroviral therapy (If indicated) ☐

42. Were you told the mode of taking the doses and the treatment

1. Yes ☐ 2. No ☐

43. Was health education counseling or advice provided on any of the following during ANC?

1 Self care ☐ 2.Alcohol use ☐ 3.Tobacco use ☐

4. Nutrition in pregnancy ☐ 5.Safe sex ☐ 6.Rest ☐

7. Sleeping under insecticide treated net ☐ 8.Symptoms of pregnancy complications ☐

9. Post natal care ☐ 10. Infant feeding ☐ 11. Family planning ☐

44. During your antenatal visit, did your provider discuss the following with you?

1 The importance of skilled attendance at birth ☐

2 Identification of the place of delivery ☐

3 How to get to the place of delivery ☐

4 Items needed for the birth ☐

5 The need to save money to pay the skilled provider and for any needed medication and supplies ☐

6 The need to make arrangement for emergency transportation ☐

7 Your plans to make arrangement for potential blood donors in case of emergency ☐

APPENDIX II

FGD Guide for pregnant women who are currently pregnant

Title: Antenatal Care Health Seeking Behaviour among Pregnant Women in Urban Slums of Ibadan Southeast Local Government Area, Nigeria

Greetings; My name is _____ a Masters of Public Health Student from the department of Health Promotion and Education (Population and Reproductive Health), College of Medicine, University of Ibadan. I am carrying out a research study on "Antenntal Care Health Seeking Behaviour among Pregnant women in urban slums of Ibadan Southeast Local goveminent Area, Nigeria". The finding of this study will inforin the formulation of policy that would aim to improve maternal Health in Oyo State, Nigeria and beyond.

1. Where do pregnant women go to when they are pregnant?
   A. Probe for the where they go to.
2. Ok, is this your first pregnancy?
3. What do you understand by the term Antenatal care and services?
4. Can you mention what is obtained from antenatal care?
   a. Probe for more practices of antenatal care.
5. Where do women go to receive antenatal care in this community?
6. Where do you think is the best place for pregnant women to receive ANC?
   a. Probe for the common type of health seeking behaviour of women in the community
7. Why should pregnant women attend ANC?
   a. Probe for more reasons.
8. What are the challenges faced during pregnancy and attending ANC?
9. Can you mention live tests carried out on you during ANC?
10. What are your reasons for using this place for ANC?
11. Do you think pregnant women should attend ANC early or late?

APPENDIX III

Ethical Approval

INSTITUTE FOR ADVANCED MEDICAL RESEARCH AND TRAINING (IAMRAT)
COLLEGE OF MEDICINE, UNIVERSITY OF IBADAN. IBADAN, NIGERIA.
Director: Prof. A. Ogunniyi, [illegible]
Tel: 08023036583, 08038094173
E-mail: aogunniyi@comui.edu.ng

NOTICE OF FULL APPROVAL AFTER FULL COMMITTEE REVIEW

Re: Antenatal Health Care Seeking Behaviour among Pregnant women in Urban Slums of Ibadan South East Local Government Area, Nigeria

UI/UCH Ethics Committee assigned number: UI/EC/12/0262

Name of Principal Investigator: Matthew U. Omuya

Address of Principal Investigator: Department of Health Promotion & Education, College of Medicine, University of Ibadan, Ibadan

Date of receipt of valid application: 16/08/2012

Date of meeting when final determination on ethical approval was made: 21/03/2013

This is to inform you that the research described in the submitted protocol, the consent forms and other participant information materials have been reviewed and given *full approval by the UI/UCH Ethics Committee*

This approval dates from 21/03/2013 to 20/03/2014. If there is delay in starting the research please inform the UI/UCH Ethics Committee so that the dates of approval can be adjusted accordingly. Note that no participant accrual or activity related to this research may be conducted outside of these dates. All informed consent forms used in this study must carry the UI/UCH EC assigned number and duration of UI/UCH EC approval of the study. It is expected that you submit your annual report as well as an annual request for the project renewal to the UI/UCH EC early in order to obtain renewal of your approval to avoid disruption of your research.

The National Code for Health Research Ethics requires you to comply with all institutional guidelines, rules and regulations and with the tenets of the Code including ensuring that all adverse events are reported promptly to the UI/UCH EC. No changes are permitted in the research without prior approval by the UI/UCH EC except in circumstances outlined in the Code. The UI/UCH EC reserves the right to conduct compliance visit to your research site without previous notification.

Professor A. Ogunniyi
Director, IAMRAT
Chairman, UI/UCH Ethics Committee
E-mail: niyiabm@yahoo.com