

**Knowledge Attitude and Practices of Prevention of Mother to Child
Transmission of HIV(PMTCT) among women of Child Bearing Age, in Karu
Village, Abuja, Nigeria**

by
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DECLARATION

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ABSTRACT

An estimated 34 million people worldwide are infected with HIV with 52% of them being women (UNAIDS, 2011), of this figure, an estimated 3.4 million are said to be children below the age of 15 years. Sub Saharan Africa accounts for up to 90% of this burden in children. Nigeria, the most populous nation in Saharan Africa still contributes up to 30% of the global burden of mother to child transmission of HIV which is a major source of infection in children.

According to the Federal ministry of health 2010 ANC survey report, the country has a prevalence of 4.1%. The Federal Capital Territory (FCT) where Karu village is located ranked 5th among the 36 states and Federal capital territory in Nigeria with a prevalence of 8.7%. Urban prevalence is 8.6% while the rural prevalence is 8.2%.

An exploratory descriptive study was conducted among women of child bearing age (18 to 49 years) living in Karu village, Abuja, FCT, North central Nigeria. A semi structured questionnaire designed to assess the knowledge, attitude and practices of prevention of mother to child transmission of HIV was administered by the researcher on 120 women of child bearing age living in Karu village after obtaining their consent. The study received an ethical review and approval from FCT human research ethics committee at the Health Department of the Federal capital development agency and Stellenbosch University, ethic committee.

Findings from the 120 women who gave consent to participate showed that 28.33% had sufficient knowledge of how MTCT can occur with 77% having insufficient knowledge of how MTCT occur, 51.67% of them have sufficient knowledge of how PMTCT can be achieved while 48.33% do not. Of the participant surveyed, 89.17% of them have ever been pregnant while 24.17% were pregnant at the time of the survey, the bulk of the participants were between the ages of 18 to 34 with only 22.5% of them within the age of 35 – 49 years.

From this study, women in Karu village were identified to have high level of general knowledge regarding MTCT and PMTCT of HIV but in-depth knowledge of both is still insufficient among a large group of women. Health workers and mass media were identified as key sources of information regarding MTCT and PMTCT of HIV and majority of women have favourable attitude towards PMTCT interventions but practices of these interventions is still relatively low.

OPSOMMING

Ongeveer 34 miljoen mense is wêreldwyd aangetas deur MIV, waarvan 52% vroue is (UNAIDS, 2011). Hiervan is ongeveer 3.4 miljoen na bewering kinders onder die ouderdom van 15 jaar. Tot 90% van hierdie infeksie by kinders kom in sub-Sahara-Afrika voor. Nigerië, die digstbevolkte staat in sub-Sahara-Afrika, dra tot 30% van die globale las van moeder-tot-kind-oordrag van MIV, wat 'n groot bron van infeksie onder kinders is.

Volgens die Federale Ministerie van Gesondheid 2010 ANC-opnameverslag het die land 'n voorkomssyfer van 4.1%. Die Federal Capital Territory (FCT), waar die dorp Karu geleë is, is as 5de van die 36 state in Nigerië geklassifiseer met 'n voorkomssyfer van 8.7%. Die stedelike voorkomssyfer is 8.6% teenoor die landelike voorkomssyfer van 8.2%.

'n Ondersoekende, beskrywende studie is uitgevoer onder vroue van vrugbare leeftyd (18 tot 49 jaar) wat in die dorp Karu, Abuja, FCT, Noord-sentrale Nigerië, woon. 'n Halfgestruktureerde vraelys is ontwerp om die kennis, houdings en voorkomingspraktyke van moeder-tot-kind-oordrag (MTCT) van MIV te beoordeel. Dit is deur die navorser toegepas op 120 vroue van vrugbare leeftyd wat in die dorp Karu woon nadat hul toestemming daartoe verkry is. Die studie het 'n etiese oorsig en goedkeuring van die FCT mensnavorsing-etiekkomitee by die Departement van Gesondheid van die federale hoofstad se ontwikkelingsagentskap en die Universiteit Stellenbosch se etiekkomitee ontvang.

Bevindings van die 120 vroue wat ingestem het om deel te neem het getoon dat 28.33% toereikende kennis gehad het van hoe MTCT kan voorkom, met 77% wat onvoldoende kennis gehad het van hoe MTCT voorkom. Van hulle het 51.67% genoegsame kennis gehad van hoe PMTCT verkry kan word, terwyl 48.33% nie oor hierdie kennis beskik het nie. Van die deelnemers wat waargeneem is, was 89.17% al swanger, terwyl 24.17% tydens die opname swanger was. Die meerderheid van die deelnemers was tussen 18 en 34 jaar oud, met slegs 22.5% wat in die ouderdomsgroep 35 – 49 jaar geval het.

Uit hierdie studie het geblyk dat vroue van die dorp Karu geïdentifiseer is as mense wat 'n hoë vlak van algemene kennis omtrent MTCT en PMTCT van MIV gehad het, maar dieptekennis van albei sake is steeds ontoereikend by 'n groot groep vroue. Gesondheidswerkers en die massamedia is geïdentifiseer as sleutelbronne van kennis oor MTCT en PMTCT van MIV en die meeste vroue het 'n gunstige houding teenoor PMTCT-intervensies, maar die toepassing van hierdie intervensies is nog betreklik laag.

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CHAPTER ONE

INTRODUCTION

1.1 Introduction

HIV is a global public health crisis with Sub Saharan Africa having a disproportionately high burden of the epidemic. Women and children in many settings continue to experience high rates of new infection and HIV related illnesses and deaths. High rate of infection among women of child bearing age reflect directly on children. Nigeria, a Sub Saharan member nation continues to record high rates of HIV among women and children. This is reflected in the UNAIDS 2013 progress report on elimination of maternal to child transmission of HIV which showed Nigeria recorded 60,000 new cases of maternal to child transmission of the infection in 2012 alone.

1.2 Background of the study

The HIV pandemic till date remains an issue of major concern on a global scale. The UNAIDS (2011) report indicated an estimated 34 million people worldwide are infected with HIV with women accounting for 52% of this burden. Sub Saharan Africa accounts for more than two-third (68%) of the global infected population. Children under the age of 15 make up 3.4 million of the global number of infected while Sub Saharan Africa alone accounts for 90% of this burden (WHO/UNICEF/UNAIDS, 2011).

Nigeria with a current estimated population of over 162 million and a growth rate of 3.2% according to World Bank report (2011) have an HIV prevalence of 4.1% Federal Ministry of Health (FMOH) ANC Survey report (2010). Fertility rate at the time of the report is 5.7% with an estimated annual birth of 6 million. State HIV prevalence ranged from 1% in Kebbi state, North West of the country to 12.7% in Benue state, North central Nigeria. Presently Nigeria contributes an estimated 30% of the global burden of maternal to child transmission HIV (FMOH, 2010).

The Federal Capital Territory (FCT) where Karu village is located ranked 5th among the 36 states and Federal capital territory in Nigeria with a prevalence of 8.7%. Urban prevalence is 8.6% while the rural frequency is 8.2% among pregnant women 15 to 24 years (FMOH, 2010).

1.3 Motivation of the Research Project

A woman with HIV who had no PMTCT intervention has a 30-45% chance of passing the virus to her baby during pregnancy, labour and delivery as well as during breast feeding (WHO, 2006). Maternal to child transmission risk can be reduced to less than 2% if the infected woman receives intervention that includes the use of highly active antiretroviral drugs as prophylaxis of complete therapy during pregnancy, labour and delivery and over the breastfeeding period. (WHO, 2006)

According to the 2013 progress report of the Global plan towards elimination of maternal to child transmission of HIV, Nigeria had 60,000 new paediatric infections in 2012 which is equivalent to one third of new infections among children in the 21 Sub Saharan priority countries. The country's PMTCT coverage at the end of 2010 stands at just 13% as reported by the National PMTCT scale up plan document. This is grossly inadequate and falls short of what is needed to reach the goal of eliminating maternal to child transmission of HIV in the country. Health facilities providing PMTCT services are barely enough. Ante natal care (ANC) centres where interventions are designed to take place also record low patronage from pregnant women. Report from the scale up plan also indicates only 58% of pregnant women attend ANC clinics at least once during their pregnancy while just 45% have up to 4 ANC attendances during their pregnancies. Hospital deliveries stand at just 35% with 62% of births occurring at home with traditional birth attendants. This also limits access to mothers and their babies who might require PMTCT intervention. PMTCT interventions in the country are mainly available in government health facilities.

Presently, the Government of Nigeria through the Ministry of Health with support from donor agencies is rapidly scaling up PMTCT services to underserved communities at both rural and urban areas. While working towards improving access it becomes important to assess the level of knowledge, attitude and current practices of women regarding PMTCT and working on gaps identified to help optimize utilization of services. Presently, no studies have been done in Karu village, Abuja to assess the knowledge, attitude and practice of women in relation to PMTCT.

1.4 Problem Statement

What are the knowledge, attitude and practices of prevention of mother to child transmission of HIV (PMTCT) among women of child bearing age in Karu village?

1.5 Objectives of the Study

The main aim of this study is to assess the knowledge, attitude and practices of women of child bearing age as it relates to PMTCT in, Karu village, Abuja Nigeria.

The objectives of the study are:

- i. To identify the proportion of women of child bearing age with accurate knowledge of maternal to child transmission of HIV.
- ii. To assess the practices of women of child bearing age as it relates to PMTCT practices in Karu village.
- iii. To identify the attitude of women of child bearing age towards PMTCT interventions in Karu village.
- iv. To identify sources where women of child bearing age acquire knowledge on maternal to child transmission in Karu village.

1.6 Research Methodology

The survey and content analysis method will be used for data collection purpose. Quantitative data will be collected via a survey through the use of a structured questionnaire. The content analysis methods will look at guidelines, policies; scale up plans and standard operating procedures for PMTCT services in the Nigeria.

The convenience sampling methods will be used to select a hundred and twenty (120) women from women groups in churches, Muslim women association in the village and age grade associations in Karu village to complete a structured questionnaires using the under listed inclusion criteria:

- i. Women who gave consent to participate in the study.
- ii. Women of child bearing age (18-49) years who had a baby within the last 10 years.
- iii. Women who are permanent residents of Karu village.
- iv. The women will be accessed through women leaders in each group.

1.7 Limitation of the Study

- The research instrument is a questionnaire which provide subjective responses, there is a possibility some respondents may not give a true picture of their situation.
- Time constraint and having to conduct the study with other competing priorities of a full time job and managing the home front.
- Delay in obtaining clearance from authority in the area selected for the study to proceed with the study.

1.8 Outline of Chapters

Chapter One – Introduction

Chapter one is the introductory chapter of this study. It gives a background of the situation of the epidemic globally, the country and within the region where I will be conducting my study. It also provides information on my motivation to embark on this study, my study objectives, method of the study and limitations of the study.

Chapter Two – Literature Survey

Chapter two is a desk review of available literatures on previous studies similar to the study I am conducting. It also involves a review of available literature to provide an insight into what is known on the subject under study.

Chapter Three – Research Methodology

Chapter three is the Research methodology, it provide information on the approach used in the study, the study instrument, sampling methods used and characteristics of the study population.

Chapter Four – Reporting of Results

Chapter four provide information on the findings from the study based on laid out objectives set at the commencement of the study. Findings from an analysis of data obtained using the research instrument will be discussed in this chapter.

Chapter Five- Conclusion and Recommendations

Chapter five provides recommendation on addressing the research problem based on findings from the study. It also shares recommendations on mitigating the impact of limitations identified during the study.

1.9 Conclusion

In conclusion, we can say that HIV and AIDS continue to pose a challenge to the global community, Sub Saharan Africa remain the epicentre of the epidemic with Nigeria among the most affected countries in the region. Mother to child transmission of the virus remains a significant source of new infection in the region especially Nigeria despite available effective preventive therapies. Similar studies done among population of women of child bearing age have shown mixed and low level of knowledge regarding mother to child transmission of the virus, a review of some of the literatures on previous studies is outline in the next chapter.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

HIV is the human immunodeficiency virus; it is the virus that causes humans to develop AIDS which stand for acquired immune deficiency syndrome. It is a virus that can be transmitted from one person to another through the under listed means;

- Unprotected sexual intercourse
- Use of infected body piercing materials
- The use of infected blood and blood products
- From an infected mother to her baby during pregnancy, childbirth and breast feeding.

➤ **Global HIV Situation**

After over 30 years of identifying the virus, HIV remains a serious global health concern. An estimated 34 million people worldwide are infected with HIV with 52% of them being women (UNAIDS, 2011). In 2011, 2.5 million people were newly infected with HIV which though far less than 3.2million recorded in 2001 still remains on the high side. Sub Saharan Africa which is the most affected region accounts for over two-third of the global epidemic. The virus is also among the leading cause of maternal mortality and infant deaths in the region. Without treatment with lifesaving antiretroviral therapy, one third of children infected with the virus die in their infancy and over half die by their second year of life (WHO, 2006).

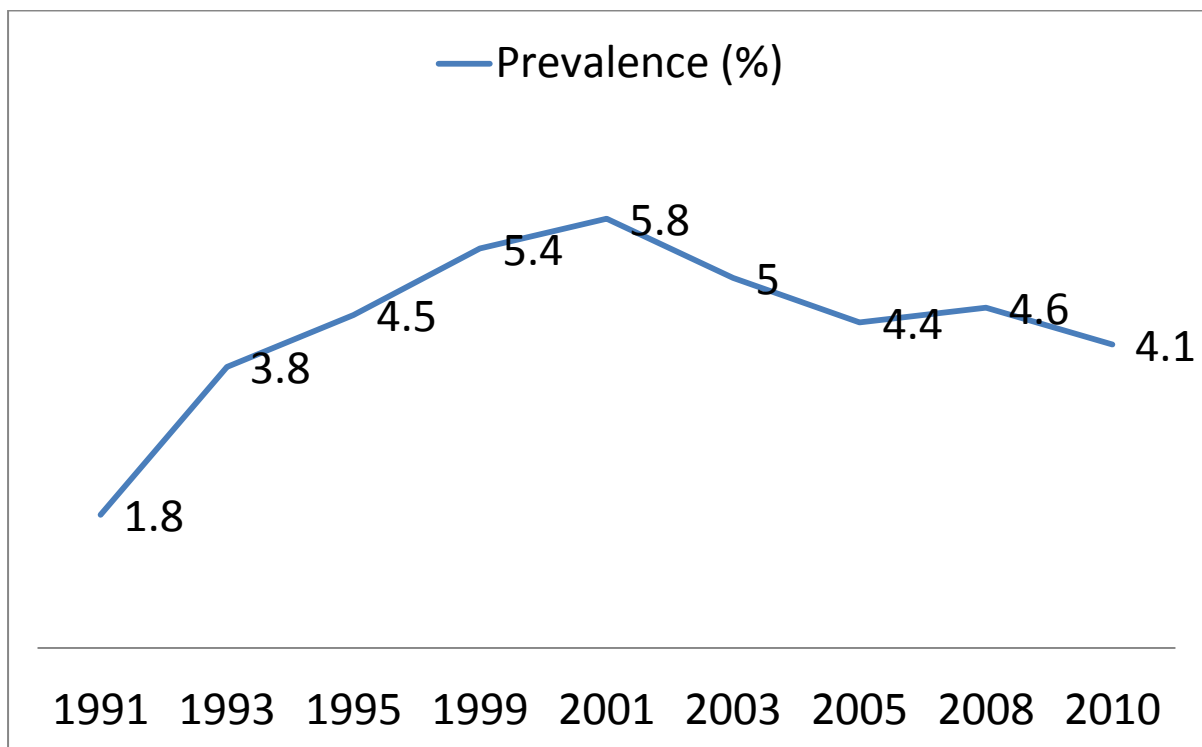
➤ **HIV in Nigeria**

Nigeria, the most populous African nation which is also located in sub Saharan Africa presently have a huge share in the burden of HIV and AIDS. According to the Nigeria Federal Ministry of Health, HIV prevalence in country is at 4.1% (FMOH, 2010). This translates to over 3 million people infected with HIV in the country, prevalence ranges from 1% in Kebbi state North West Nigeria to 12.7% in Benue state North Central Nigeria. This spread showed that all 36 states and Federal capital territory have prevalence of one percent or over (figure 1).The Federal capital territory where Karu village is located is in North Central Nigeria and has a prevalence of 8.7%. Urban prevalence is 8.6% while the

rural prevalence is 8.2% among pregnant women 15 to 49 years (FMOH, 2010) (figure 2.1).

Figure 2.1

Trend in HIV prevalence in Nigeria 1991-2010 (FMOH, 2010)



➤ **HIV Infection in women**

HIV has been identified as a leading cause of death for women in their reproductive age (15-49). The global picture of the epidemic shows women account for over half of the 34 million estimated to be living with HIV. Women are twice as susceptible as men to acquire HIV during sexual intercourse: *“This epidemic unfortunately remains an epidemic of women”* according to Michael Sedibe, Executive Director of UNAIDS. In Sub Saharan Africa the hardest hit part of the world; women constitute 58% of all people living with HIV. HIV prevalence among young women age 15-24 is twice that of men of the same age (UNAIDS fact sheet, 2012)

➤ **Maternal to Child Transmission of HIV**

Paediatric HIV is a clear reflection of the burden of the virus on women as over 90% of the disease in children has been identified to be through maternal to child transmission. As

more women of reproductive age get infected more children are acquiring the virus through the pregnancy, delivery and breastfeeding process (FMOH, 2010)

In Nigeria, according to FMOH most children less than 15 years living with HIV acquired the infection through maternal to child transmission. Infection can occur during pregnancy, delivery and during breast feeding. Without intervention a woman with HIV have a 30-45% chance of passing the virus to her baby.

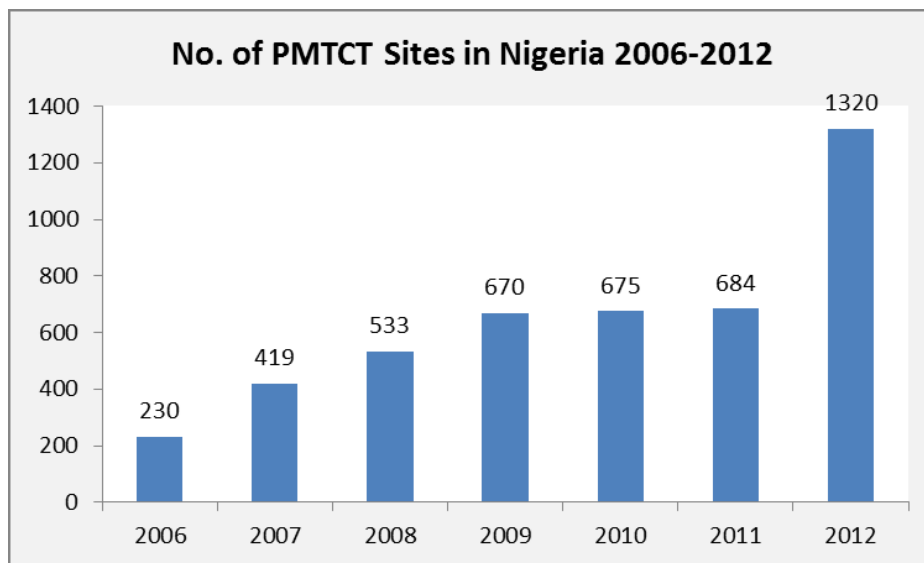
Higher prevalence in women of reproductive age, high fertility rate, low uptake of family planning services, prolonged breast feeding culture, as well as poor access to PMTCT intervention all contributes to HIV infection in children. As at 2009 the FMOH reported an annual HIV positive birth of 56,681. The report also indicated transmission of HIV in children has become a critical health problem that is threatening the positive impact of child survival strategies in the country.

➤ **Prevention of Maternal to Child Transmission of HIV**

PMTCT intervention aim at eliminating HIV transmission from infected mother to her child where the risk of maternal to child transmission can be reduced to less than 2% from 30-45% with proper intervention that involves the use of anti-retroviral therapy.

➤ **Prevention of Maternal to Child Transmission of HIV in Nigeria**

In Nigeria, PMTCT services became available to infected pregnant women in 2001 when the Government of Nigeria supported six tertiary hospitals across the six geo-political zones of the country to commence service. Since then, Government supported PMTCT service outlets have increased to 67 in 2004 and 718 in 2010. (NACA PMTCT Fact sheet, 2011) Despite the increase in PMTCT service outlet, reports indicate the country only have a 13% PMTCT coverage of pregnant women in the country. The national scale up plan for PMTCT (2010 -2015) also indicated only 12% of pregnant women who require antiretroviral therapy (ARVs) to prevent mother to child transmission actually receive the drugs; This makes scaling up of services of high priority.

Figure 2.2**Number of PMTCT sites in Nigeria 2006-2012**

(Courtesy, National Agency for the Control of AIDS NACA fact sheet)

The Nigeria Federal Ministry of Health is presently working at scaling up PMTCT service following the laid down scale up plan for 2010- 2015. The overall goal is to contribute to improved maternal health and child survival. This it aims to achieve through laid down strategies which are:

- i. Prevention of HIV infection in women of reproductive age group and their partners.
- ii. Prevention of unintended pregnancy among HIV positive women.
- iii. Prevention of HIV transmission from HIV infected mother to their infants.
- iv. Care and support for HIV infected mothers, their infants and family members

➤ **Knowledge of MTCT and PMTCT**

Successful PMTCT intervention and achieving the goal of eliminating new HIV infection in children by 2015 laid out in the UNAIDS global plan is highly dependent on everyone, especially women of child bearing age having accurate and up to date knowledge about HIV transmission, risk of transmission to babies and interventions available to reduce and possibly eliminate the transmission of the virus to children. PMTCT have over the years been an area of interest to many with a good number of studies carried out to access

knowledge level of people especially among women with mixed outcome. Highlight from some of these studies are outlined below.

Gebreegziabher et al (2008) conducted a study of 461 pregnant women attending ante natal clinic in four health facility in Ethiopia. Findings from his study showed that most of them 457(99.1%) have heard about HIV/AIDS of which, 419 (92.7%) mentioned the major routes of transmission and 437(94.8%) knew that HIV can be transmitted from an infected mother to her baby. Majority of them 433(93.9%) also knew that MTCT of HIV is preventable.

Tatagan et al (2010) also conducted a hospital based study in Togo among women attending ante natal clinic, 210 pregnant women were surveyed. Findings from the study showed they have a high knowledge of sexual HIV transmission. The women identified unprotected sex (93.8%), sharing sharp objects soiled with blood (80.5%) as key route of transmission; only (27.1%) were able to identify maternal to child transmission as a route of HIV transmission with (77.1%) agreeing that unprotected sexual relations raised the risk of HIV transmission to the child.

Petrie et al (2007) conducted a pilot study of 36 educated women enrolled in a PMTCT program at the Vanguard Community Health Centre in Western Cape. Finding from the study showed a high general knowledge of HIV with 88.9% of them scoring 80% more in the assessment of general HIV knowledge.

Artwinne et al (2012) conducted a community based study on Knowledge and practice of women in rural Uganda, findings from a sample of 100 women showed that 91% of the women surveyed were aware that MTCT can occur while only 72% were aware that it can be prevented.

Chirwa (2011) conducted a health facility based research of pregnant women offered HIV counseling and testing as part of PMTCT intervention. His findings showed that 86% of the women who accepted HIV counseling and testing and 85.5% of women who refused testing were aware that MTCT can occur, while just 41.4% were aware that MTCT can be prevented using antiretroviral drugs.

Moses et al (2009) conducted a study of 172 pregnant women attending ante natal care in a tertiary hospital in North Eastern Nigerian. Findings from there study showed there is a high level of knowledge of HIV transmission and sexual prevention but only 42% of them had accurate knowledge of preventive intervention to babies.

Olugbenga et al (2013) also did a study in south-western Nigeria that showed high level of awareness about HIV and AIDS among 420 women of reproductive age 15-49 years surveyed (99.8%). The knowledge about MTCT and PMTCT of HIV was also high with 92.1% and 91.4%, respectively.

In conclusion, studies reviewed showed relatively high level of knowledge of HIV and MTCT among women reviewed. It is important to note that most of the studies except two were conducted among pregnant women attending ante natal clinics who might likely have developed interest based on this. The two community based studies conducted in Uganda and Nigeria also showed high level of HIV awareness related knowledge.

➤ **Factor that Influence Attitude toward PMTCT**

Attitudes of the women towards PMTCT are a key factor that can positively or negatively affect utilization of PMTCT services. This makes it important to review factors that influence attitude of the study population toward PMTCT. Outline below is a review of existing literature on related studies.

Muula et al (2004). Findings of a study conducted in Malawi indicated that of the 321 women surveyed, 99.7% were in favour of breastfeeding their babies and shared that a woman who do not breast feed will likely be considered to have intent of killing her baby or that she was already pregnant again or the baby was not given birth to by her, It might also be inferred that she is sexually promiscuous and so she does not want to “contaminate the milk,” or she has diseases of the breasts, tuberculosis or HIV and AIDS.

Olugbenga et al their study findings from Nigeria showed despite high level of awareness about MTCT and PMTCT, a significant portion (71.27%) of the study population had poor attitudes towards PMTCT of HIV services. The study though was silent on why the women’s attitude towards PMTCT service was poor.

Moses et al (2009) conducted a study of 172 pregnant women attending ante natal care in a tertiary hospital in North Eastern Nigerian. Findings from there study showed the use of breast milk substitute by HIV positive mothers and condom use to prevent during sexual intercourse recorded poor responses from the women, with only 42 (24.4%) and 58 (33.7%) of the women respectively having favourable attitude towards both. The women not in support of breast milk substitute indicated refusal by their spouses as reason for not being in favour of it, the importance placed on breast feeding at the community was also given as a reason for not endorsing it. Those who rejected the use of condoms said the

practice was against their religious beliefs while a few shared the beliefs that withdrawal before ejaculation and use of antibiotics after sex can equally prevent HIV infection. Majority of the women surveyed 106 (61.6%) said they will be willing to support their spouses who tested positive for HIV.

Chirwa (2011) in a study conducted in Malawi showed 75% of HIV positive pregnant women surveyed in the study tend to not discussing their status with their partners compared to 86% of HIV negative women who tend to discuss their status with their partners, 92% of the women surveyed irrespective of HIV status felt that a couple with HIV should not have children. All the women surveyed, irrespective of HIV status prefer to breastfeed their babies rather than resort to breast milk substitute. The study also noted that HIV positive women among the respondent were more likely to indicate acceptance of treatment intervention to prevent MTCT than HIV negative women. The study also reported that a large proportion of the women surveyed, that is above 90% of positive women and all of the HIV negative women felt it was acceptable for their partners to have sexual relation outside their marriage.

➤ **Practices of PMTCT**

Having a good knowledge base and favourable attitude towards MTCT and PMTCT is highly important, but it is the positive utilization of the knowledge through translating the good knowledge and attitude into practice that will eventually lead to the desired outcome of eliminating new infection in children. Presence of HIV related stigma and cultural factors in relation to child birth and nurturing can present barriers to effectively practicing PMTCT interventions. One key requirement for PMTCT success is having the pregnant woman give birth in an environment where she can have access to skilled birth attendance by a trained health worker and also equipped with the skills and capacity to provide PMTCT intervention through the use of antiretroviral drugs.

Muula et al (2004) in a study conducted in Malawi showed of the 320 women who responded to the survey question, 314 (98.1%) indicated desire to deliver at a health facility, (1.3%) at home, and 1 (0.3%) at either the traditional birth attendant's or at home. The study also reported the women had positive attitude toward uptake of HIV testing especially when pregnant to facilitate interventions for prevention. Other key findings from this study showed 88.4% of the women surveyed will be willing to accept antiretroviral preventive intervention if found to be HIV positive, 6.5% said they will not accept while

4.4% said they were not sure if they will accept if found HIV positive. Majority of women (81.2%) reported HIV testing should be routinely available in ante natal clinics.

The Nigerian Federal ministry of health also reported in its PMTCT scale up plan only 58% of pregnant women attend ANC clinics at least once during their pregnancy while just 45% have up to 4 ANC attendances during their pregnancies. Hospital deliveries stand at just 35% with 62% of births occurring at home with traditional birth attendants.

Moses et al (2009) in their study conducted in Nigeria also showed there is a poor attitude towards opting not to breast as part of PMTCT intervention. The women surveyed indicated likely disagreement from their spouses if they opt not to breast feed and high cultural value on breast feeding with possibility of being stigmatized or run into conflict with the extended families and community if they choose not to breast feed.

The review of service uptake indicated cultural practices and fear of being stigmatized play a crucial role in the uptake of service.

➤ **Sources of Information regarding HIV and PMTCT**

Muula et al (2004) in their study conducted in Malawi showed sources of HIV and PMTCT information was from the radio 96.3%, health workers 82.2% and friends 66.7% respectively.

Artwinne et al (2012) conducted a study in Uganda showed information regarding HIV and PMTCT was 69.66% from health workers, 32.58% from the mass media and 9% from schools.

Mass media especially radio messaging and health care workers were identified as key sources of information regarding HIV and PMTCT.

2.2 Conclusion

In conclusion, similar studies conducted indicate there is generally high a level of awareness of HIV; however, there are still some knowledge gaps in MTCT AND PMTCT with significant level of misconception on transmission and interventions for PMTCT. Keeping up with local cultural practices and norms relating to pregnancies, childbirth and nurturing of the baby play a vital role in the decision to take up PMTCT services. The fear of being stigmatized also play a significant role in service uptake.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The study was carried out in Karu village, which is a semi urban area on the outskirts of Abuja city. It is part of the Nigerian Federal capital territory (FCT) and presently witnessing rapid population growth due to influx of people from all parts of the country coming to live and work in the national capital.

3.2 Problem statement

Over the years, great achievements have been attained in the area of eliminating new HIV infection in children globally. Sub-Saharan Africa is also having good progress in reversing the high rate of new infection in children. This is clearly reflected in the current UNAIDS report on the global plan of eliminating new infections in children which showed between 2009 and 2012, countries like Ghana recorded 76% reduction, South Africa 63% with up to 50% reduction in countries like Botswana, Zambia, Ethiopia, Malawi and Namibia. Nigeria, the most populous African country had a small decline in new infection in children with as much as 60,000 new infections occurring in 2012 alone; this clearly indicates there is a problem in the country which needs to be addressed urgently. This is especially distressing as good progress is being achieved in other countries within the region using the same approaches.

The Nigerian Government identified access to PMTCT service as a factor contributing to persistent high rate of new infection in children. She is presently working to implement its PMTCT scale up plan which focuses on expanding access to services for it through opening of new sites across the country for optimum geographic coverage. PMTCT services in the country are usually integrated into ante-natal care in health institutions such as hospitals and clinics, while uptake of ante-natal care in these institutions have been recorded to be far below the number of women going through their pregnancy and childbirth process every year. Pregnant women (62%) are reported to give birth outside these health institutions (FMOH). This makes it important to conduct an assessment of the knowledge, attitudes and practices of PMTCT among women of child bearing age.

Information obtained, might give insight into other reasons apart from easy access to services on why uptake is low leading to high MTCT rates in the country. This might also guide programming to ensure services are utilized when they are in place.

Karu village was selected for the study because most similar studies conducted in the country were done within hospital ante-natal settings and it was not possible to identify a report of similar study conducted in Karu village. The community is also one of the places where Government is scaling up PMTCT services in its bid to achieve adequate geographic coverage, hence the problem statement:

What are the knowledge, attitude and practices of prevention of mother to child transmission of HIV (PMTCT) among women of child bearing age in Karu village?

3.3 Objective of the study

The main aim of this study is to assess the knowledge, attitude and practices of women of child bearing age as it relates to PMTCT in, Karu village, Abuja Nigeria.

The objectives of the study are:

- v. To evaluate the proportion of women of child bearing age with accurate knowledge of maternal to child transmission of HIV.
- vi. To determine the practices of women of child bearing age as it relates to PMTCT practices in Karu village.
- vii. To evaluate the attitude of women of child bearing age towards PMTCT interventions in Karu village.
- viii. To determine sources where women of child bearing age acquire knowledge on maternal to child transmission in Karu village.

3.4 Research approach

The survey and content analysis method was used for data collection purpose. Quantitative data was collected via a survey through the use of a structured questionnaire. The questionnaire was developed in using English as a language. The questionnaire was adapted from a similar study conducted in Uganda; it was shared with two technical leads in PMTCT programming in Nigeria to review for validity of the content. The questionnaire include sections that collated demographic data of the respondents, knowledge of maternal

to child transmission of HIV, attitude towards PMTCT services, sources of information on MTCT and PMTCT and practices relating to PMTCT.

Consent from respondents was sought using a consent form developed in English and Nigerian Pidgin English which is a key language of communication in the community. Ethical approval was also obtained from the FCT human research ethics committee at the Health Department of the Federal capital development agency. The questionnaires did not collect any information that can directly be linked to respondents. The completed questionnaires were kept under lock with only the researcher having access.

Responses from the questionnaires were analysed using excel. The content analysis of PMTCT national guidelines, policies; scale up plans and standard operating procedures for PMTCT services in the Nigeria were conducted.

➤ **Advantages of using quantitative research approach**

- It is very useful in the study of large populations.
- Very useful in obtaining precise numerical data.
- Data collection is quick and easier to obtain within a short period.
- Data analysis is less time consuming with use of statistical software
- Research findings can be generalized when such research have be done in many population and subpopulation.
- Helpful in obtaining data that allows quantitative predictions to be made.

➤ **Disadvantages of using quantitative research approach.**

- Knowledge obtained has a likelihood of being general and abstract and might not be suitable for application to specific individuals in the population or at individual context and situations.
- The parameters used as a tool for research findings might not reflect local understandings and situations.
- Other phenomena occurring in the population might be missed because of the focus on parameters for assessments chosen by the researcher.

➤ **Advantage of using qualitative research approach**

- Very good at obtaining more in-depth findings based on people's experience.
- Might be less expensive than quantitative research and study participants are usually far smaller with the use of less complex tools.

• **Disadvantages of using qualitative research approach**

- Study findings cannot be used to make assumption beyond the specific group of participants.
- Findings are usually based on what the behaviour of the study group participants, what they think and feel about the situation under study.
- It is not suitable for obtaining statistical data about the study population.

In conducting this study, the quantitative approach was chosen for data collection, this was because of the ease of obtaining data from my study population within a very short period of time. So much time was wasted in obtaining ethical clearance from the local authority hence delay in commencing the study.

3.5 Sampling

The convenience sampling method was used to obtain data from a hundred and twenty (120) women from groups in churches, Muslim women associations and age grade associations in Karu village using a structured questionnaire, the under listed inclusion criteria were observed:

- i. Women who gave consent to participate in the study.
- ii. Women of child bearing age (18-49) years who had a baby within the last 10 years.
- iii. Women who are permanent residents of Karu village.
- iv. The women will be accessed through women leaders in each group.

3.6 Conclusion

Analysed data from completed questionnaires using excel and findings obtained are discussed extensively in chapter four.

CHAPTER 4

REPORTING OF RESULTS

4.1 Introduction

A total of 120 women child bearing were surveyed using a questionnaire. The result following the survey analysis is done based on responses from women who gave consent to participate in the study. The results from the study are presented using frequency tables and graphs.

4.2 Problem statement

Great strides have been achieved over the years in the management of HIV and AIDS, over the years since 1981 when the epidemic was first identified, effective treatment have been discovered making the infection manageable as a chronic condition with infected people having improved quality of life with better life expectancy. An important area of progress in the epidemic is the ability to prevent maternal to child transmission of HIV from an infected pregnant woman to her baby reducing transmission rate to less than 2% from above 30% when there is no intervention. Unfortunately, despite these great strides in prevention of maternal to child transmission, Nigeria alone still contributes about 30% of Global maternal to child transmission (UNAIDS, 2013). This is unacceptable, hence the focus on the country by both local and International agencies. The country is presently undergoing massive scale up of intervention outlets within formal ante-natal care centre, hence my interest in exploring the knowledge, attitude and practices as it relates to prevention of maternal to child transmission. This led to my problem statement outlined with the under listed objectives focusing on Karu village in Federal Capital Territory, Nigeria.

What are the knowledge, attitude and practices of prevention of mother to child transmission of HIV (PMTCT) among women of child bearing age in Karu village?

4.3 Objectives of study

- i. To evaluate the proportion of women of child bearing age with accurate knowledge of maternal to child transmission of HIV.

- ii. To determine the practices of women of child bearing age as it relates to PMTCT practices in Karu village.
- iii. To evaluate the attitude of women of child bearing age towards PMTCT interventions in Karu village.
- iv. To determine sources where women of child bearing age acquire knowledge on maternal to child transmission in Karu village.

4.4. Analysis of data and findings

Different parameters have been used to present the findings.

➤ Socio Demographic Details of Participants

A total of 120 questionnaires were answered by women who gave consent to participate in this study. A summary of their characteristics showed 38 (31.67%) have never married, 7 (5.83) are widowed, 62 (51.67) are married. Majority of the participant had up to secondary level 59(49.17) and tertiary level 46 (38.33) education, 41() of them were unemployed, 33(27.5) were traders, 43(35.83%) are salaried workers while most of them were between the ages of 18 and 34. Table 4.1 gives more information on their demographic characteristics.

Table 4.1

Summary of Socio Demographic Details of Study Participants

(N = 120)

Variable	Frequency(f)	Percentage (%)
Age (Years)		
18-24	41	34.17
25-34	52	43.33
35-49	27	22.50
Religion		
Roman Catholic	26	21.67
Protestants	16	13.33
Muslim	47	39.17

Pentecostal	29	24.17
Others	2	1.67
Marital Status		
Never Married	38	31.67
Widowed	7	5.83
Divorced	8	6.67
Married	62	51.67
Others	5	4.17
Level of Education		
None	4	3.33
Primary	11	9.17
Secondary	59	49.17
Tertiary	46	38.33
Occupation		
Unemployed	41	34.17
Trader	33	27.5
Salaried Worker	43	35.83
Others	3	2.5

➤ **Parity of the Participants.**

A summary of the 120 women who participated showed 107 (89.17%) had ever been pregnant, 29(24.17%) were pregnant at the time of the study, 22 (18.33%) have had more than 5 pregnancies while the largest portion of them 41 (50.62%) have their youngest children at age 0-2 years. Table 4.2 gives more detailed information on their parity status.

Table 4.2**Parity status of Participants**

Variable	Frequency (f)	Percentage (%)
Ever be pregnant? N=120		
Yes	107	89.17
No	13	10.83
Presently Pregnant? N=120		
Yes	29	24.17
No	91	75.83
No of Pregnancies? N=120		
0	13	10.83
1-2 times	37	30.83
3-4 times	48	40
>5 times	22	18.33
Age of Youngest child (years) N=81		
0-2	41	50.62
2-5	25	30.86
5-10	15	18.52
10-15	0	0

➤ **Knowledge of Study Participants regarding MTCT of HIV and PMTCT of HIV**

A look at responses (85.83%) is aware MTCT of HIV can occur. Regarding when MTCT of HIV occur, only 2 (1.67%) reported having no knowledge of how it occur; 101 (84.17%) of them are aware that MTCT of HIV can be prevented while 17(15.83%) said they have no idea it can prevented. Table 4.3 gives more detailed information regarding MTCT and PMTCT.

Table 4.3**Knowledge of Study Participants regarding MTCT of HIV and PMTCT of HIV**

Variables	Frequency (f)	Percentage (%)
Ever heard of HIV?		
Yes	116	96.67
No	4	3.33
Is Maternal to Child transmission of HIV Possible?		
Yes	103	85.83
No	17	14.17
When MTCT occur		
Pregnancy	72	60
Labour	82	68.33
Breastfeeding	53	44.17
Don't Know	2	1.67
Aware that MTCT of HIV be Prevented?		
Yes	101	84.17
No	19	15.83
How MTCT can be prevented		
HIV Counselling and testing before and during pregnancy.	80	66.67
Delivering her baby in a hospital	63	52.5
Taking special drugs prescribed by Doctor during pregnancy and breastfeeding.	78	65
Modified infant feeding	36	30
Early infant diagnosis	28	23.33
Don't know	2	1.67

➤ **Study Participants level of Knowledge how MTCT of HIV occur and how MTCT OF HIV can be prevented.**

Participants were classified according to the sufficiency of their knowledge regarding MTCT of HIV and PMTCT of HIV. Participants who mentioned three correct responses regarding when MTCT of HIV occur were classified as having “sufficient knowledge”, those who gave one or two correct responses were regarded as having “insufficient knowledge”, while those who either mentioned no correct response or who acknowledged not knowing, were regarded as having “no knowledge” at all.

The women surveyed showed 34 (28.33%) of them have sufficient knowledge, the bulk of them 72 (60%) of them have insufficient knowledge, while 14 (11.67%) of them had no knowledge of when MTCT of HIV occur.

Regarding knowledge of how MTCT of HIV can be prevented, participant who mentioned correctly two or more ways of prevention of MTCT were classified as having sufficient knowledge while those who mentioned one or no correct answers were classified as having no insufficient knowledge of MTCT prevention. Table 4.4 gives a detailed summary of the findings.

Table 4.4

Adequacy of knowledge regarding MTCT and PMTCT of HIV

Variable	Frequency(f)	Percentage (%)
Knowledge of how MTCT occur		
Sufficient Knowledge	34	28.33
Insufficient Knowledge	72	60
No Knowledge	14	11.67
Knowledge of how MTCT of HIV can be prevented		
Sufficient Knowledge	62	51.67
Insufficient Knowledge	58	48.33

➤ **Attitude towards PMTCT Interventions**

Most of the women who participated have showed positive attitude towards PMTCT interventions with 92.5% of them either agreeing or strongly agreeing that HIV testing should be offered to women in ante natal clinics. Concerning partner testing, 42.5% and 36.67% either strongly agree or agree it should be done while 11 of them disagree it should be done (table 4.5).

Table 4.5

Attitude towards PMTCT Interventions

Variable	Frequency	Percentage
All pregnant women should be offered HIV test during ANC		
Strongly agree	67	55.83
Agree	44	36.67
Undecided	7	5.83
Disagree	2	1.67
Strongly Disagree	0	0
Partners of pregnant women should get tested for HIV.		
Strongly Agree	51	42.5
Agree	44	36.67
Undecided	16	13.33
Disagree	10	8.33
Strongly disagree	1	0.83

➤ **Sources of Information Regarding MTCT and PMTCT**

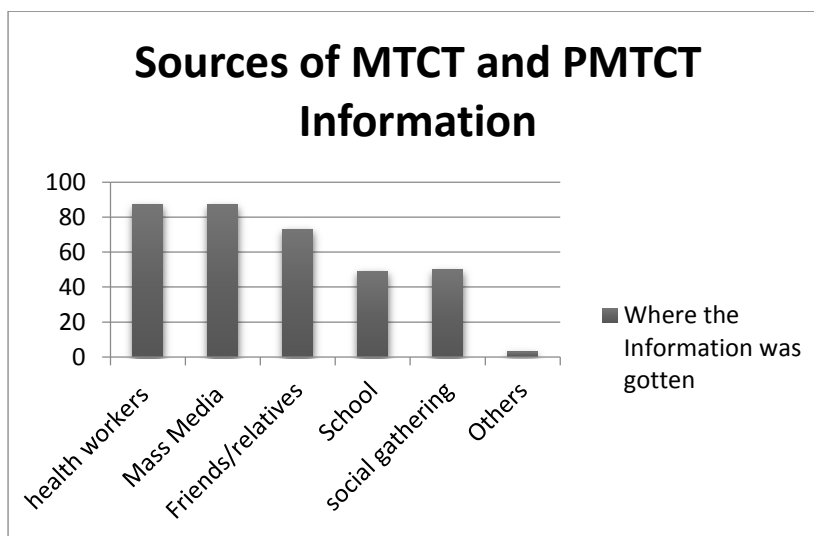
Participants' responses regarding sources of HIV information interestingly showed health workers tie with mass media as sources of MTCT and PMTCT information. This was followed by information from friends and social gatherings (figure 4.1 and table 4.6).

Table 4.6

Sources of Information Regarding MTCT and PMTCT

Variable	Frequency of response(F)	Percentage (%)
Sources of MTCT and PMTCT Information		
Health Workers	87	72.5
Mass Media (Radio, Television, newspapers, etc.)	87	72.5
Friends/Relatives	74	61.67
School	49	40.83
Social Gatherings	50	41.67

Figure 4.1

Sources of MTCT and PMTCT Information of Respondents

➤ **Practices Regarding Prevention of Maternal to Child Transmission of HIV**

Assessing the women's practice of PMTCT, they were asked if they have ever had HIV test done, 97 (80.83%) responded in the affirmative while 23 (19.17%) said no to having ever done a HIV test. Only 46 (38.83%) of the study participant said they have specifically done anything personally to prevent MTCT while 74(61.67%) said they have not done anything personally to prevent MTCT (table 4.7).

Table 4.7**Practices Regarding Prevention of Maternal to Child Transmission of HIV**

Variable	Frequency of Response	Percentage
Ever had HIV test done		
Yes	97	80.83
No	23	19.17
Ever Done anything personal to prevent MTCT		
Yes	46	38.33
No	74	61.67

Participants who acknowledged doing something personally about PMTCT were asked in an open ended question format what they did, some of them gave more than one answer. Of the 46 participants who responded to having done something personally to prevent MTCT, 42 of them said they accepted HIV testing when they were offered the test during ANC but only 8 said they were able to persuade their partners to get tested for HIV when they were pregnant while 28 said they made sure they attended antenatal care in government health facilities where they were sure of getting PMTCT intervention, 2 said they opted not to breastfeed their babies.

4.5 Conclusion

There is evidence of high level of awareness regarding HIV, MTCT and PMTCT among the study participants while mass media and health care providers were identified as key sources of information, but key knowledge to guide PMTCT uptake is still insufficient in a significantly high number of participants.

CHAPTER 5

CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapters discussed recommendations and conclusions based on findings derived from the study. The overall goal of the study is to assess the knowledge, attitude and practices of prevention of mother to child transmission of HIV among women of child bearing age in Karu village, Abuja, FCT. In working on the study, the under listed problem statement and objectives were derived. Findings and conclusions from the study will be discussed using the outlined objectives.

5.2 Record problem statement

What are the knowledge, attitude and practices of prevention of mother to child transmission of HIV (PMTCT) among women of child bearing age in Karu village?

Discussion will be according to the formulated objectives:

- ❖ **To evaluate the proportion of women of child bearing age with accurate knowledge of maternal to child transmission of HIV.**

Findings from this study showed 85.83% of the women surveyed are aware that maternal to child transmission of HIV can occur, this level of awareness is quite high and compares favourably with similar studies conducted by Gebregziababer et.al (2008) among pregnant women in antenatal clinics in Ethiopia where 94.8% of women surveyed were aware of the occurrence of mother to child transmission. Similar Nigerian studies conducted in North Eastern Nigeria by Moses et al (2009) showed the majority of the women surveyed were aware of occurrence of mother to child transmission while Olugbenga et.al (2013) in South western Nigeria also showed similar findings with 91.4% of women surveyed being are of the possibility of it occurrence. These were all studies conducted among pregnant women in antenatal clinic women. The study findings also compared favourably well with a similar community based study carried out in a rural community in Uganda by Artwinne et.al (2012) where up to 90% of women surveyed were found to be aware of occurrence of mother to child transmission of HIV. The Uganda study is very similar to this study as it was also a community level study while all other studies reviewed were antenatal clinics based studies. The study though showed a very different knowledge level compared to another similar study conducted among pregnant women in antenatal clinic by Tatagan et.al

(2010) in Togo, a West African country Nigeria, the study showed only 27.1% of the women surveyed were aware of the occurrence of maternal to child transmission of HIV, this is far lower than what this study established.

Concerning when mother to child transmission occurred, 60% of study participants knew of during pregnancy, 68.33% correctly identified labour while only 44.17% correctly identified breastfeeding while 1.67% had no knowledge. Findings from this study on when mother to child transmission occur showed this did not compare so well with the Ugandan study where over 81.9% of participants were aware of MTCT occurring during labour and breastfeeding. This is quite significant as 70% (WHO) of maternal to child transmission of HIV is known to occur during labour and delivery. Poor knowledge of MTCT in labour among women, might have negative uptake in delivery at health facilities which have been identified as a major challenge to PMTCT and maternal and child health in the country.

Further analysis of findings classified participants responses by showing those who mentioned three correct responses regarding when MTCT of HIV occur as having “sufficient knowledge”, while those who gave one or two correct responses being classified as having “insufficient knowledge”, while those who either mentioned no correct response or who acknowledged not knowing, were regarded as having “no knowledge” at all.

The analysis showed only 34 (28.33%) of women surveyed have sufficient knowledge, the bulk of them 72(60%) of them have insufficient knowledge, while 14(11.67%) of them had no knowledge of when MTCT of HIV occur. This findings compares well with the report of the Nigerian HIV-STI integrated biological and behavioural report (2008) which showed there is a high level of awareness of HIV information among Nigerians, with level or awareness standing at close to 100% but in-depth knowledge of HIV required to carry out lifesaving prevention, care and treatment intervention is still quite low among the populace standing at less than 30%.

Regarding knowledge of how prevention of mother to child transmission of HIV, the women who were able to mention correctly two or more ways of prevention of mother to child transmission of HIV were classified as having sufficient knowledge while those who mentioned one or no correct answers were classified as having insufficient or no knowledge of prevention of mother to child transmission, only 51.67% of them successfully mentioned two or more ways of prevention while 48.33% of them fell under

insufficient or no knowledge. This level of knowledge of prevention of mother to child transmission showed that there is still a huge gap between awareness of occurrence of MTCT and knowledge of what can be done to prevent it being on the lower side.

❖ To determine the practices of women of child bearing age as it relates to PMTCT practices in Karu villages

Findings from this study showed 80.83% of women surveyed have had HIV testing and counselling at some point in their lives, this correlates well with what was reported by Artwinne et.al (2010) study in Uganda where 81% of study participant have had HIV testing and counselling done.

Responses from participants to question of having personally done anything to prevent maternal to child transmission showed that only 38.83% of them responded yes, while the bulk of them 67.67% said no or were not sure if they have ever done anything to prevent MTCT. This also reflect the findings of Nigerian HIV-STI integrated biological and behavioural report (2008) where it was identified that majority of the populace have very low self-risk perception to HIV. Open ended question to the 38.83% who responded positively to having done something elicited the following responses:

- Acceptance of HIV testing when offered during antenatal clinic.
- Encouraging their partners to get tested for HIV when they were pregnant.
- Choosing to attend antenatal care in government health facilities where they are sure of getting access to full package of PMTCT services.
- Taking antiretroviral drugs during pregnancy up to when they stopped breastfeeding.
- Choosing not to breastfeed their babies.

Their responses correlates somewhat to findings in Uganda by Artwinne et al(2012) where respondents said they have encouraged friends or family members who are HIV positive to go to the hospital, to take their drugs or modify feeding their babies to prevent passing on the virus.

❖ To evaluate the attitude of women of child bearing age towards PMTCT interventions in Karu village.

The majority of women who participated showed a positive attitude towards PMTCT interventions with 92.5% of them either agreeing or strongly agreeing that HIV testing should be offered to women in ante natal clinics. Concerning partner testing 42.5% and 36.67% either strongly agree or agree that it should be done while just 9% of them disagree that partner testing should be done.

This findings correlates favourably with similar study conducted by Moses et al (2009) in North Eastern Nigeria where majority of the women 61.6% showed favourable attitude towards PMTCT intervention. The findings of Olugbenga et al (2013) in south western Nigeria showed that majority of his participants have poor attitude towards PMTCT intervention, though he did not indicate the proportion of the participants with poor attitude. Karu Village is located in north central Nigeria.

❖ To determine sources where women of child bearing age acquire knowledge on maternal to child transmission in Karu village.

Findings from this study showed most of the women acquire knowledge on maternal to child transmission majorly from health workers and mass media with 72.5% of them indicating both medium as key sources of information. Social gathering was identified by 41.67% of respondents as a second key source of information with school coming in at third place with only 40.83% of them reporting getting information from schools. This finding pointed to a knowledge gap in schools providing information as up to 49.17% and 38.33% had secondary and tertiary level education respectively. Part of this finding is similar to the Ugandan study of Artwinne et al (2012) where up to 70% of the participants indicated health talks from health workers as key source of information but only 32.58% from mass media and just 9% reported getting their information from schools.

The study findings was also very similar to findings from Muula et al (2004) conducted in Malawi where 98.3% indicated mass media as key source of information, 82.2% reported health workers as key source of information while 66.7% reported friends as social gathering as key source of information. In all, mass media and health care workers were identified as very relevant in getting information on maternal to child transmission of HIV to women.

5.3 Recommendations

Health workers and mass media have made a remarkable contribution in ensuring there is a high level of awareness of MTCT and PMTCT of HIV in Karu village, however, women

still lack sufficient knowledge in Karu village regarding when MTCT occur and how it can effectively be prevented. Health workers being a key source of information should be trained to provide more in-depth information during their health talks to close this gap in knowledge. The mass media also need to redesign its message to improve the quality and content of messages passed across to ensure women get access to quality and up to date information regarding MTCT and PMTCT of HIV. Schools are also an excellent avenue to close knowledge gaps, schools should expedite action in including the Family and HIV education curriculum designed for secondary schools by the federal government into the school's teaching curriculum to promote access to quality information. MTCT of HIV have a high chance of occurring during labour and delivery should be emphasized in messages as this might improve willingness to give birth in a health facility instead of at home or with unskilled birth attendants.

Further research can also be conducted using qualitative approach to interact with women to establish why there is a low uptake of personal action to do something about preventing mother to child transmission. Knowledge alone might not be the only determining factor influencing attitude towards MTCT and PMTCT of HIV so there is room for further research.

5.4 Study limitation

The research instrument used was a questionnaire which provide subjective responses, there is a possibility some respondents may not give a true picture of their situation. Time constraint and having to conduct the study with other competing priorities of a full time job and managing the home front coupled with slow feedback from local authority in obtaining ethical clearance led to reduction in time available to conduct the study. More time was necessary to conduct interviews and focus group discussions with some of the women to produce qualitative data.

5.5 Conclusion

In conclusion, from this study, women in Karu village were identified to have high level of general knowledge regarding MTCT and PMTCT of HIV but in-depth knowledge of both is still insufficient among a large group of women. Health workers and mass media were identified as key sources of information regarding MTCT and PMTCT of HIV and majority of women have favourable

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Addenda

Addendum A

Questionnaire

Assess the Knowledge, Attitude and Practices of Prevention of Mother to Child Transmission of HIV (PMTCT) among Women of Child Bearing Age, in Karu Village, Abuja FCT

Hello. My name is Mamudu Rashidat I am a student of Stellenbosch University, South Africa. I am conducting a study as part of fulfilling a key requirement for the award of an MPhil in HIV Management. I am also a resident of Karu village. The purpose of this study is to assess the Knowledge, Attitude and Practices of PMTCT among women of child bearing age in Karu Village.

Below are questions designed to conduct the assessment? Answering these questions will take no more than 25 – 30 minutes of your time. Along with this questionnaire is a consent form which provides further information on terms of participating in this research work. Do feel free to contact me on **08029598236** if you have further questions.

Section A

Demographic details of participant, please check as applicable

1. Study number _____

2. Age

- a. 18 – 24
- b. 25 – 34
- c. 35 – 49

3. Level of education (choose one)

- a. None
- b. Primary
- c. Secondary
- d. Tertiary

4. Religion (choose one)

- a. Roman catholic
- b. Protestant
- c. . Muslim
- d. Pentecostal
- e. Other (specify)_____

5. Marital status (choose one)

- a. Never married
- b. Widow
- c. Divorced
- d. Married
- e. Other (specify) _____

6. Occupation (choose one)

- a. Unemployed
- b. Trader
- c. Salaried worker
- d. Others(specify) _____

Section B:

Parity of participant

7. Have you ever been pregnant?

- a. Yes
- b. No

8. Are you pregnant presently?

- a. Yes
- b. No

9. How many times have you been pregnant? Please indicate number of times _____

10. How old is your youngest child? _____ months/years

Section C: Knowledge of participant regarding Mother to child transmission and Prevention of mother to child transmission of HIV

11. Have you heard of HIV?

- a. Yes
- b. No

12. Is it possible for a pregnant mother to transmit HIV to her child?

- a. Yes
- b. No

12. If yes, when does Mother to child transmission of HIV occur? (Choose all that the participant mentions)

- a. Pregnancy
- b. Labour

- c. Breastfeeding
- d. Other (specify) _____

13. Are you aware that mother to child transmission of HIV can be prevented?

- a. Yes
- b. No

14. If yes, how can it be prevented? (Choose all that the participant mentions)

- a. HIV counselling and testing before and during pregnancy
- b. Delivering her baby in a hospital
- c. Taking special drugs prescribed by the doctor during pregnancy and breastfeeding
- d. . Modified infant feeding
- e. Early infant diagnosis of HIV
- Other (specify) _____

Section D: Attitude towards Prevention of Maternal to Child Transmission of HIV

15. All pregnant women should be offered HIV test during antenatal clinics.

- a. Strongly agree
- b. Agree
- c. Undecided
- d. Disagree
- e. Strongly disagree

16. Partners of pregnant women should get tested for HIV.

- a. Strongly agree
- b. Agree
- c. Undecided
- d. Disagree
- e. Strongly disagree

Section E: Sources of Information Regarding Maternal to Child Transmission of HIV and Prevention of Maternal to Child Transmission of HIV

17. Where did you get the information you just provided above? (Choose all that the participant mentions)

- a. Health workers
- b. Mass media (Radio, Television, newspaper etc.)
- c. Friends/relatives
- d. School
- e. Social gatherings
- f. Others (specify) _____

18. When did you get this information?

SECTION F: Practice Regarding Prevention of Maternal to Child Transmission of HIV

19. Have you ever had an HIV test done on you?

- a. Yes
- b. No

20. Have you ever done anything to prevent maternal to child transmission of HIV personally?

- a. Yes
- b. No

21. If yes to question 20 above, what have you done to prevent maternal to child transmission personally?

22. Is there anything you would like to ask me?

Thanks for your response.

Addendum B

Informed Consent (English Language) STELLENBOSCH UNIVERSITY CONSENT TO PARTICIPATE IN RESEARCH

Knowledge, Attitude and Practices of Prevention of Mother to Child Transmission of HIV (PMTCT) among Women of Child Bearing Age in Karu Village, Abuja Municipal Area Council, Federal Capital Territory, Nigeria

You are requested to participate in a research study being carried out by Ms. Mamudu Rashidat from the Africa Centre for HIV and AIDS Management at Stellenbosch University. The results of the research study will contribute toward the researcher's Masters level thesis as part of a requirement for the completion of the MPhil in HIV/AIDS Management programme. You were selected as a possible participant because the researcher study focus on women of child bearing age in Karu Village.

1. PURPOSE OF THE STUDY

This study is designed to assess the knowledge, attitudes and practices of maternal to child transmission of HIV among women of child bearing age in Karu Village.

2. PROCEDURES

If you volunteer to participate in this study, you will be asked to do the following: Complete a questionnaire which is completely anonymous and will not be collecting your personal contact details traceable to you. Confidentiality, anonymity and privacy of data will be maintained at all times.

3. POTENTIAL RISKS AND DISCOMFORTS

Although there is no foreseeable risk, participants may experience some discomfort in answering some questions which might be considered of a private nature by participants due to the relevance of the topic to HIV, pregnancy and childbirth.

No questions will be asked regarding participant's sexuality or HIV status. Participants are assured of the confidentiality, anonymity, and privacy of the data and that answers to questions are voluntary.

4. POTENTIAL BENEFITS TO SUBJECTS AND/OR TO SOCIETY

This study may help ascertain possible challenges and barriers that prevent women from utilizing the prevention of maternal to child HIV services available in the in the Village. Findings may also guide in future programming by Federal Capital Development Authority in PMTCT services provision in a manner that ensure improvement in uptake of services by women.

5. PAYMENT FOR PARTICIPATION

No payment will be made for your participation in this research study.

6. CONFIDENTIALITY

Any information that is obtained in connection with this study that can be identified with you will remain confidential and will not be disclosed unless with your permission or as required by law. Confidentiality will be maintained by ensuring no names or personal identifiers are recorded in any of the data collection tools. In reporting the results, care will be taken not to report results in a manner that would enable any participant to be identified and/or stigmatized in their views. Data will be stored in a safe place at all times separate from the signed consent forms. The researcher and her supervisor will be the only persons having access to the data. All data collected will be destroyed after successful completion of the thesis, for the purpose of which it was collected. The anticipated period is after eighteen months. Confidentiality and anonymity will be maintained throughout.

The purpose of the study is for the completion of an MPhil degree in HIV and AIDS Management requiring a thesis be submitted to the school, the data collected, analysed and interpreted in this study will be reported to the school. In the writing of the thesis, confidentiality, anonymity, and privacy of participants will be maintained at all times as reports will be written in a manner that no information in the report can be linked directly to a participant.

7. PARTICIPATION AND WITHDRAWAL

You can choose whether to be in this study or not. If you volunteer to be in this study, you may withdraw at any time without consequences of any kind. You may also refuse to answer any questions you don't want to answer and still remain in the study. The investigator may withdraw you from this research if circumstances arise which warrant doing so.

I will also want to use this opportunity to let you know that counseling services in relation to PMTCT and HIV is available at no cost in Karu General Hospital and Primary Health care center in Karu. Just ask for the Heart2Heart centre (Counselling unit) and you will be directed there.

8. IDENTIFICATION OF INVESTIGATORS

If you have any questions or concerns about the research, please feel free to contact the researcher, Ms. Mamudu Rashidat, at 08029598236 if the need arise. It is a mobile phone number. If you have any questions or concerns regarding the research, please feel free to contact the supervisor of my study, Prof. Elza Thomson elzathomson@gmail.com.

9. RIGHTS OF RESEARCH SUBJECTS

You may withdraw your consent at any time and discontinue participation without penalty. You are not waiving any legal claims, rights or remedies because of your participation in this research study. If you have questions regarding your rights as a research subject, contact Mrs. Ikwabela at the FCT Health Research Ethics Committee on 08071427099. .

SIGNATURE OF RESEARCH SUBJECT OR LEGAL REPRESENTATIVE

The information above was described to me by _____ and I am in command of this language. I was given the opportunity to ask questions and these questions were answered to my satisfaction.

I hereby consent voluntarily to participate in this study. I have been given a copy of this form.

Name of Subject/Participant

Date

SIGNATURE OF INVESTIGATOR

I declare that I explained the information given in this document to _____ . He/she was encouraged and given ample time to ask me any questions. This conversation was conducted in English and no translator was used.

Signature of Investigator

Date

Addendum C**Nigerian Pidgin English (Informed Consent form)
I GREE SAY I GO JOIN FOR THE PROJECT WORK**

Knowledge, Attitude and Practices of Prevention of Mother to Child Transmission of HIV (PMTCT) among Women of Child Bearing Age in Karu village, Abuja, FCT North Central Nigeria (Wetin women wey dey stay for Karu, Abuja, Nigeria and wey still dey age wey fit born pickin, sabi and dey do wey concern how person fit see say pickin wey im born no go get HIV)

Ms. Mamudu Rashidat dey do im project work. The project na one of the things wey im go submit for her school befor she go graduate for im Masters course wey dem dey call MPhil for HIV Management. She be student for Africa Centre for HIV/AIDS Management wey dey for Stellenbosch University for South Africa.

Im dey ask you say make you join answer some question wey im write down for paper, the paper question go get answers wey you fit choose from. If you gree, She fit ask you some questions again for interview wey two of una go siddon talk. The person wey fit join answer this questions na only woman wey still dey born, wey im age be eighteen years go reach forty nine years wey dey live for Karu, for Abuja.

PURPOSE OF STUDY (Why Rashidat wan do this Project work)

The question wey she dey ask na to help am know wetin women wey still dey born pickin for Karu sabi and wetin dem dey do, wey concern how person fit do to see say pickin wey dem born no go get HIV.

PROCEDURES (How you go take join for this project work)

To answer the question no be by force. If you gree say you go follow for women wey go answer im questions, she go ask you make you do the things wey she write for here:

You go answer the questions wey she write down for paper wey get answers wey you fit choose from. You no go write your name for the paper. Dem dey call this kind paper questionnaire. The answer wey you go give, all na to help am write the project, im no go collect your name join the answer wey you go give and everything wey una go talk, im no go fit share am wit anybodi unless you give am permission make im do so. Na you get the

power to talk wia you want make una meet or the tyme wey you want make una do this talk or wen you wan answer the question wey she go ask you.

POTENTIAL RISKS AND DISCOMFORTS (Wetin fit Happen If I join answer im questions)

As e dey, notin fit happen pass say the person fit no like the kind question wey dem fit say make im answer. The reason be say we go talk about things wey concern woman wey get bele, how woman dey born the pickin and things wey concern HIV. We no go talk anything wey concern weda you get HIV or you no get HIV, that one no follow for this talk. Nobodi apart from the person wey do the interview go fit know say na you give the answer, she no go share your answer wey fit dey direct to you with anybody and all the answer wey you give, im go keep am for place wey nobodi wey no suppose see am go see am. As we talk befor, to join answer the question no be by force, you fit talk say you no do again even if you first gree befor and if you gree, na for place and tyme wey you choose for inside your community we go do the interview.

POTENTIAL BENEFITS TO SUBJECTS AND/OR TO SOCIETY

This project work fit help us know the kind thing wey dey disturb women wey dey make dem no dey gree go use the service wey dey for hospital, wey go fit helep dem see say if dem get bele, born pickin, the pickin no go get HIV. If we know wetin dey make the women no dey use the service, e go fit helep us to work with people wey dey bring the service see say dem go do am so dat make women like the service well well come dey use am. Na the answer wey I go get from this work go helep us give dem this suggestion.

PAYMENT FOR PARTICIPATION (Dem dey pay person to join for this project work)

If you agree say you go join for this work, I no go pay you moni say becos you follow answer my question. Na free you go take do am.

CONFIDENTIALITY (Who fit know the things we talk about)

Any answer you give for this work wey dem fit dem fit trace come meet you, we go keep am well well make nobodi see am. Nobody apathy from me go see am unless you give me permission make I share am or gofment law say make I release am. Anoda thing be say, I collect the answer without your name so person wey see am no fit trace am come meet you.

Like I talk befor, na school work to take complete Master for HIV Management make wey I dey collect this information. After the work complete, I go keep the answer fo like 18 month come destroy am. This work na confidential from beginning go reach end.

PARTICIPATION AND WITHDRAWAL

To join for this work no be by force, you fit say you no do and nothing go happen. Even if you don gree to join befor, you fit change your mind say you no do again any tyme wey you like and nothing go happen. Any question wey I ask wey you no like, you fit say you no go answer and still remain for people wey gree join for the project work. Me wey I dey do the project work fit talk say you no join again if something happen wey fit make me do so.

I go use this opportunity take tell you say, if you want to learn more about the things wey person fit do make im pickin no get HIV, you fit go visit the Heart2Heart centre wey dey for Custom clinic for Karu, another Heart2Heart centre still dey Nyanya Medical centre for Karu too. This Hear2Heart service na free of charge, person no dey pay. Just ask dem for the Heart2Heart centre wen you reach the hospital, dem go just take you there straight. You fit still call Nurse Charity on 08077099601.

IDENTIFICATION OF INVESTIGATORS

If you get any question wey concern wetin I explain for this paper, you fit call Ms. Mamudu Rashidat for this number **08029598236** if you want, na im GSM number be dis. If you still wan talk to im Supervisor Prof. Elza Thomson about anything wey concern this work or ask am any question you fit write for this email elzathomson@gmail.com or call am for this GSM number +27824946920

RIGHTS OF RESEARCH SUBJECTS

You fit say you no go do again anytime wey you like and comot rvrn if you don first gree and nothing go happen. If you get questions wey concern your right for this matter, you fit contact Mrs. Ikwabela for FCT Human Research and Ethics committee for this number. 08071427099.

SIGNATURE OF RESEARCH SUBJECT OR LEGAL REPRESENTATIVE

Everything wey dem talk for up, _____ explain am for me make I understand well well for the language wey I sabi. Dem give me chance make I ask questions and dem answer my question well befor I sign.

I gree say I go join for this project work. This form wey I sign say I gree to join, dem give me copy of my own make I keep.

Name of Subject/Participant

Date

SIGNATURE OF INVESTIGATOR

I declare the I information wey dey dis document. I don explain am give _____. I give am plenty time come encourage am make im ask me questions wey I answer. Dis talk na pidgin English we take talk am.

Signature of Investigator

Date

Addendum D

Approval Notice

Response to Modifications- (New Application)

29-Oct-2013

Mamudu, Rashidat A

Dear Ms Rashidat Mamudu,

Your **Response to Modifications - (New Application)** received on **28-Oct-2013**, was reviewed by members of the **Research Ethics Committee: Human**

Research (Humanities) via Expedited review procedures on **29-Oct-2013** and was approved.

Please note the following information about your approved research proposal:

Please take note of the general Investigator Responsibilities attached to this letter. You may commence with your research after complying fully with these guidelines.

Please remember to use your **proposal number (HS979/2013)** on any documents or correspondence with the REC concerning your research proposal.

Please note that the REC has the prerogative and authority to ask further questions, seek additional information, require further modifications, or monitor the conduct of your research and the consent process.

Also note that a progress report should be submitted to the Committee before the approval period has expired if a continuation is required. The Committee will

then consider the continuation of the project for a further year (if necessary).

This committee abides by the ethical norms and principles for research, established by the Declaration of Helsinki and the Guidelines for Ethical Research:

Principles Structures and Processes 2004 (Department of Health). Annually a number of projects may be selected randomly for an external audit.

National Health Research Ethics Committee (NHREC) registration number REC-050411-032.

We wish you the best as you conduct your research.

If you have any questions or need further help, please contact the REC office at 0218839027.

Sincerely,

Susara Oberholzer

REC Coordinator

Proposal #: HS979/2013

Title:

KNOWLEDGE, ATTITUDE AND PRACTICES OF PREVENTION OF MOTHER TO CHILD TRANSMISSION OF HIV (PMTCT) AMONG WOMEN OF CHILD BEARING AGE IN KARU LOCAL GOVERNMENT, NASARAWA STATE, NORTH CENTRAL NIGERIA.

Proposal Approval Period: **29-Oct-2013 -28-Oct-2014**

Included Documents:

REC form

DESC form

Revised Informed consent form

Research proposal

Consent form

Interview schedule

Revised DESC form

Questionnaire

Revised questionnaire

Revised REC application

Permission letter

Research Ethics Committee: Human Research (Humanities)

Addendum E**FEDERAL CAPITAL TERRITORY
HEALTH RESEARCH ETHICS COMMITTEE**

Research Unit, Room 10, Block A Annex, HHSS
FCT Secretarial No. 1 Kapital Street Area II, Garki, Abuja - Nigeria

Name of Principal Investigator: MAMUDU RASHIDAT AMANOSI
Address of Principal Investigator: No1 Zamahi Mora Street Karu
Date of receipt of valid application: 24/09/2013

NOTICE OF APPROVAL AFTER COMMITTEE REVIEW
Protocol Approval Number: FHREC/2013/01/42/25-10-13

TITLE: Knowledge Attitude and practices of prevention of mother to child transmission (PMTCT) of Human Immuno deficiency virus (HIV)

The research described in the submitted protocol has been reviewed.

Documents Reviewed:

- (i) Application form
- (ii) Curriculum Vitae of the Investigator
- (iii) Research Protocol;
- * Questionnaire
- * Participant Information Sheet
- * Informed Consent Form

On the basis of the review, this research has been approved by the Committee (FHREC). Subsequent changes are not permitted in this research without prior approval by the FHREC.

This approval dates from **25/10/2013 to 24/10/2014**. 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 FHREC assigned protocol approval number and duration of FHREC approval of the study.

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. The FHREC reserves the right to conduct compliance visit to your research site without previous notification.

In multiyear research, endeavor to submit your annual report to the FHREC early in order to obtain renewal of your approval and avoid disruption of your research. At the end of the research, a copy of the final report of the research should be forwarded to FHREC for record purposes.

Ikwubiela S. Adem
Secretary, FHREC
October 25, 2013