# CONTRACEPTIVE USE AMONG WOMEN LIVING WITH HIV AND AIDS RECEIVING CARE AT SECONDARY AND TERTIARY HEALTH FACILITIES IN IBADAN NIGERIA

**BY**

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## DEDICATION

This research work is dedicated to the Almighty Allah for His grace and mercies upon my life because without Him this work wouldn't have been possible. I also dedicate this work to my late father ALHAJI BADMUS MUBARAK AROWOFELA (Abiyamo tooto). I really miss you.

## ABSTRACT

Contraceptive use is a form of family planning and it is one practice among the most important health decisions that many people make and this does not exclude women living with HIV/AIDS. Lack of adequate information on available contraceptive methods and restriction of choices are major constraints for contraceptive users to obtain a method that suits their unmet need. Hence, this study was designed to assess the unmet need of contraceptives use among women living with HIV and AIDS receiving care at secondary and tertiary health facilities in Ibadan.

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A cross-sectional study using systematic random sampling technique was conducted to select 350 consenting women among HIV positive women receiving care in two health facilities in Ibadan. A pre-tested interviewer-administered questionnaire which contained respondents' Socio-demographic characteristics, unmet need of contraceptive use, family planning method used and their effectiveness, types of contraceptive need, experience of modern contraceptive methods and level of satisfaction of modern contraceptive use among HIV positive women in Nigeria was adopted. Data were analysed using descriptive statistics and ANOVA at p=0.05.

Age of the respondents was 37.0±8.5, 87.0% were married and 68.0% were in monogamous marriage. Respondents with Junior and Senior Secondary School certificates were 41.1% and 34.3% rates respectively. About 97.0% of the women had had at least one birth, 46.0% of the women had 4-6 previous pregnancies, 44.0% had 1-3 pregnancies while 7% had more than 6 previous pregnancies. Current method of contraception was influenced by joint agreement with their spouses (33.0%), Husband (26.5%) and self (23.8%). Condom was the commonest choice (54.8%) followed by Oral pills (20.1%) while Injectables (16.1%) IUCD (10.5%) and Implants (9.5%) were the least common choices respectively. More than a tenth (11.0%) have encountered problems with the methods they used, of which the prominent problems include lack of menses (27.0%), scanty menses (15.0%), heavy menses (12.0%). Of the women that encountered problems, 54.0% indicated they would seek solution from providers, 15.0% would adopt traditional methods, 12.0% would change method while about 4.0% don’t know what to do. A

significant association was found between satisfaction with modern contraception and continuation. Factors influencing continuation of chosen method included (39.7%), availability (24.1), Affordability (14.1%) and effectiveness (13.1%). A Major reason for being satisfied with chosen method was adequate information before choice (94.5%). No significant association was found between the chosen modern contraceptive and level of education. Husbands with secondary and higher education had significant influence on the kind of contraceptive chosen by their wives.

High level of education and previous use of contraceptives supported by spouses are factors influencing modern contraceptive choices. Family planning programme should be incorporated as a component part of care for women living with HIV and AIDS.

**Keywords:** contraceptive use, unmet need, ARV clinics, HIV positive Women

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glory, honour and adoration to the Almighty Allah, the giver of all good things for the grace to start and finish the course.

## CERTIFICATION

I hereby certify that this study was carried out by ADENUGA Faidat Adesola 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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|---|---|
| AIDS | Acquired Immune deficiency syndrome |
| ARV | Antiretroviral |
| AMTH | Adeoyo Maternity Teaching Hospital |
| EC | Emergency Contraceptives |
| DHS | Demographic Health Survey |
| DMPA | Depo Medroxy Progesterone Acetate |
| FHI | Family Health International |
| FP | Family Planning |
| HIV | Human Immunodeficiency Virus |
| IUCD | Intrauterine Contraceptive Device |
| IUD | Intrauterine Device |
| IBHS | Integrated baseline Health Survey |
| LAM | Lactational Amenorrhoea |
| NDHS | National Demography Health Survey |
| NFP | Natural Family Planning |
| OCPs | Oral Contraceptive Pills |
| PPFN | Planned Parenthood Federation of Nigeria |
| RH | Reproductive Health |
| SDM | Standard Day Method |
| STIs | Sexually Transmitted Infections |
| UCH | University College Hospital |
| WHO | World Health Organization |

# CHAPTER ONE

# INTRODUCTION

## 1.1 Background of the study

Contraceptive use is a form of family planning and it is one practice among the most important health decisions that many people make (USAIDS, 2006a; Smith, Ashford, Gribble *et al.*, 2009) and this does not exclude women living with HIV/AIDS. About half of the 33.3 million HIV-positive people worldwide are women within the reproductive age (Agbogboroma, 2011). Although fertility and HIV rates in Nigeria are among the highest in the world as the country is rated second behind India with the number of HIV positive population globally, little is known about how HIV infection affects the met and unmet need for modern family planning (Ethiopian Demographic and Health Survey, 2011). Prevention of unintended pregnancies among HIV infected women is among the four key pillars for comprehensive prevention of mother to child transmission (PMTCT). This can only be achieved with the use of contraception to prevent unwanted pregnancy (Delvaux and Nostlinger, 2007; FMoH, 2011).

Every year, about 1.5 million women living with HIV/AIDS become pregnant, mainly in sub-Saharan Africa (UNAIDS, 2013). This category of women has higher unmet needs for family planning (FP) for their own health and for preventing mother-to-child transmission of HIV. However, unintended pregnancies are a major contributor to maternal mortality because they increase the risk of unsafe abortion, lead to frailty in women with high parity and closely spaced pregnancies, and cause obstructed labor in young women with premature pelvic development (Khan, Wojdyla, Say*et al.*, 2006; Ronsmans and Graham, 2006).

Prevention of unintended pregnancies among women living with HIV is the second component of the World Health Organization's four-pronged approach to comprehensive prevention of mother-to-child transmission of HIV (PMTCT) (WHO, 2002; 2003). Provision of appropriate counselling and support in addition with contraceptives, to women living with HIV to meet their need for family planning and spacing of births has been shown to be a cost-effective intervention to prevent MTCT (Reynolds, Janowitz, Homan*et al.*, 2006; 2008). Recent estimates show that 60% of women in the region who want to avoid pregnancy have an unmet need for modern

contraceptive methods (i.e., currently are using no methods or a traditional method) (Darroch and Singh, 2013).

In order to respond to the challenges of unmet reproductive health needs of HIV-infected women, major international organizations including the United Nations have called for stronger linkages between reproductive health and HIV/AIDS care (UNFPA/UNAIDS/FCI, 2004). Understanding the fertility desires of HIV-infected women who know their HIV status, their contraceptive choices and the pregnancy rates is critical in meeting their reproductive health needs and preventing unwanted pregnancies. This study was therefore designed to assess the unmet need for Family Planning, contraceptives choices among women living with HIV receiving care in Adeoyo Maternity Hospital and University College Hospital with onsite Family Planning services in Ibadan, Oyo State of Nigeria.

### 1.2 Statement of problem

Women living with HIV and AIDS have a heightened need for guidance from health care providers prior to an attempt for pregnancy because of the potential risks of transmission to the partner while trying to conceive and to the infant during pregnancy, delivery and breast feeding (Finocchario–Kessler, Darriotis, Sweat *et al.,* 2010; Baroncelli, Tamburini, Ravizza*et al.,* 2011). Providing women living with HIV and AIDS with care, opportunities to plan and space pregnancies, and quality pregnancy care including PMTCT services improve health outcomes for both mothers and infants (De Cock, Fowler, Mercier *et al.,* 2000). Effective programs to prevent perinatal HIV transmission would, if accessed by all women in need, prevent approximately 300,000 HIV transmissions annually (Halperin, Stover, Reynolds *et al.,* 2009; Jhangri, Heys, Alibhai *et al.,* 2012).

Recent estimates show that 60% of women in a west African region who wanted to avoid pregnancy had an unmet need for modern contraceptive methods (i.e. currently are using no methods or a traditional and or other methods) (Darroch and Singh, 2013). Although there are no reliable data from the region quantifying the unmet need for modern contraceptive methods

among HIV-infected women, studies suggest that HIV-infected women who know their status are substantially less likely to want more children compared to their HIV-negative peers (Nakayiwa, Abang, Packel *et al.*, 2006; Elul, Delvaux, Munyana *et al.*, 2009; Johnson, Akwara , Rutstein *et al.*, 2009) and the reported rate of unplanned pregnancies among HIV-infected women in the region remains high (Nakayiwa *et al.*, 2006; Homsy, Bunnel, Moore *et al.*, 2009).

Despite its potential impact on maternal and child health in the region, the use of contraceptives in sub-Sahara Africa is the lowest in the world. However, there is considerable evidence that HIV infected women have high rates of unmet need for contraception (Cooper, Moodley, Shah *et al.*, 2009; Yeatman, 2009; Ethiopian Demographic and Health Survey, 2011; Abebe, Addissie *et al.*, 2012). Previous studies in Nigeria have focused on demand and factors influencing contraceptive choice for family planning among women in general population (Ethiopian Demographic and Health Survey, 2011; Mekonnen and Worku, 2011). This study is to assess the unmet need of contraceptive use among women living with HIV and AIDS at Adeoyo State Hospital (a Secondary health facility) and the University College Hospital (a tertiary health facility) ARV centres in Ibadan Nigeria. The objective of the study was to assess demand for modern family planning and extent of unmet need for contraceptive use among women living with HIV in southwestern Nigeria.

### 1.3 Justification

Various family planning programmes are now available in Nigeria with so many jingles on print and social media but their utilization are still at the lower ebb particularly among HIV positive women. The rates of unmet need for family planning and unintended pregnancies among women living with HIV are critical proxies for measuring the extent to which family planning is contributing to the prevention of pediatric HIV and welfare of HIV positive women in Nigeria, although this information may not be measured uniformly. Despite the shortcomings of most PMTCT programs to conceptualize, implement and evaluate family planning interventions as a core component of those programs, it has not been documented that the fertility intentions,

family planning practices, experiences with unintended pregnancies, and level of unmet need for family planning among women and couples living with HIV in recent time in Ibadan.

## 1.4 Research Questions

**The following questions were answered by the study**

1. What was the prevalence of contraceptive use among women living with HIV and AIDS assessing care at Adeoyo State Hospital and the University College Hospital Ibadan, Nigeria?
2. What types of contraceptive do women living with HIV and AIDS use?
3. What were the experiences of women living with HIV and AIDS with their choice of modern contraceptive methods?
4. What was the contraceptive use among women living with HIV and AIDS assessing care at the University College Hospital and Adeoyo State Hospital, Ibadan Nigeria?
5. What was the level of satisfaction of women living with HIV and AIDS on the chosen modern contraceptive?

## 1.5 Research Objectives

### 1.5.1 Broad objective

The broad objective of the study was to assess the contraceptive use among women living with HIV and AIDS receiving care at secondary and tertiary health facilities in Ibadan Oyo State of Nigeria.

### 1.5.2 Specific objectives

The specific objectives were to:

1. Determine the family planning method used by women living with HIV and AIDS and how effective are those methods

2. Determine the types of contraceptive need of women living with HIV and AIDS in Nigeria

3. Document the experience of modern contraceptive methods adopted by HIV positive women in Nigeria.

4. Identify the unmet need of contraceptive use among women living with HIV and receiving care at secondary and tertiary health facilities in Ibadan Nigeria.

5. Assess the level of satisfaction of modern contraceptive use among HIV positive women in Nigeria.

### 1.7 Hypotheses

The following hypothesis were tested by the study

1. There was no association between level of education and unmet need of contraceptive use among HIV positive women in Nigeria.
2. There was no association between availability of various family planning methods and the unmet need in contraceptive use among HIV positive women in Nigeria**.**
3. There was no association between experiences of modern contraceptive use and the continuation of chosen contraceptive method.
4. There was no association between availability of various family planning methods and unintended pregnancies in contraceptive use among HIV positive women in Nigeria**.**
5. There was no association between level of satisfaction and the continuation of chosen contraceptive method.

# CHAPTER TWO

# LITERATURE REVIEW

## 2.1Historical Background

Modern contraceptives such as steroidal oral contraceptive pills were introduced around the 1960s after a long time family planning challenges to replace the old methods. However, according to Kolawole (2004), man has had the desire to control his fertility for a long time before the advent of these modern contraceptives. Since this breakthrough, a great deal of improvement and discoveries has taken place with quite a number of available choices. There are so many variables as regards the choice of contraceptive which includes attitude of health workers, parity, side effects, age, cost, medical history of diabetes mellitus, hypertension etc. (Mosher and Jones, 2010). Modern Family Planning methods if properly used will help to improve individual rights and welfare of women, combat population explosion secondary to uncontrolled fertility and tailor the population growth to the available resources improving societal welfare when compared to the old methods.

Family Planning is a practice that helps individuals as well as couples attain certain objectives in order to avoid unwanted births, bring about wanted births, regulate the intervals between two pregnancies, control the time at which births occur in relation to the ages of the parents and to determine the number of children in the family. Unplanned or unintended pregnancies are those, identified by a mother as unwanted or mistimed (occurring earlier than wanted) at the time of conception should be guided against at all costs. This is possible only through the timely use of contraceptive methods (Park, 2007). Also, Family Planning is a primary health strategy with important benefits for both maternal and child health. This is an important component of the strategies adopted to control rising maternal mortality to the safe Motherhood Conference. However, The World Health Organization (WHO) in 1971 defines Family Planning as a way of thinking and living that is adopted voluntarily upon the basis of knowledge, attitudes and responsible decisions by individuals and couples in order to promote health and welfare of the family group and thus contribute effectively to the social development of the country.

According to Dawn (2004), contraception is a general term which encompasses all measures of temporary and permanent methods to prevent pregnancy due to coital act and for spacing births, thus regulating fertility. Contraception also refers to the mechanisms which are intended to reduce the likelihood of fertilization of an ovum by a spermatozoan (Williams, 2001). It is also stated that contraceptive is the use of a substance or device to prevent conception. What the modern methods seek is to interrupt the process of conception by impacting on the ovum, the sperm, the meeting of the sperm and ovum and implantation. Therefore, fecundity is the biological capacity to procreate which remains unchanged.

In Nigeria, about 7 out of 10 women know at least one modern method of contraception. Overall, 10% of married women currently use modern of Family Planning; an additional 5% are using a traditional method (NPC/ICF International, 2014). About 3% Injectables are the most commonly used methods and more than 40% of sexually active, unmarried women are using a modern method of Family Planning, most commonly the male condom. According to available information, modern contraceptives are used by 17% of married women in urban areas compared with 7% in rural areas and this increases with women's education (NPC and ICF International, 2014). Therefore, family planning methods refer to techniques used to attain the desired number of children and ensure the desired timing of conceptions and spacing between births. Such methods may be classified into three categories, depending upon their actual and theoretical reliability. The available types of Family Planning in Nigeria are Hormonal methods, Intra-Uterine Contraceptive Devices (IUD), Barrier methods, Natural family planning, Voluntary Surgical Contraception (VSC) and Emergency Contraception (EC).

Furthermore, use of Family Planning has risen slightly since 2003 when 8% of currently married women used a modern method of Family Planning and has now increased to 10% (NPC/ICF International, 2014). This may be attributable to a small increase in the use of injectables and male condoms. Other facilities which provide family planning include private hospitals and clinics, pharmacies, and chemists provide contraceptives. Nigeria has approximately 18 million adolescents and eligible of reproductive age considered to be a large population. It has also been reported that 75% of Nigerian women of child bearing age are in union (NPC/ICF International, 2014). Additionally, Nigerians are known to marry early, have the first pregnancy, have high

fertility rate (5.7/woman) and desire many children. Nevertheless, knowledge of Nigerians and attitudes towards Family Planning has improved in the last twenty years. Although contraceptive use is generally poor, however, there is a wide gap between the northern and the southern regions of Nigeria. One of the constraints is that accessibility to Family Planning services is very poor. About 30% of married women are within 6 km of Service Delivery Points (SDPs) in the rural areas(NPC and ICF International, 2014).

## 2.2Rationale for and trends in contraceptive use

**2.2.1Contraceptive use**: It is a form of effective contraceptive use of modern techniques in preventing undesirable pregnancies. The commonest is the proper use of condom during sexual intercourse between a male and a female. Other devices for Family Planning in Nigeria include Hormonal methods, Intra-Uterine Contraceptive Devices (IUD), Barrier methods, Natural family planning, Voluntary Surgical Contraception (VSC), Emergency Contraception (EC), implant, injectable (three-month DMPA), oral contraceptive pills, or diaphragm/spermicides are classified as using a modern contraceptive method.

**2.2.2 Unmet need for family planning**: It is a desire not to have more children ever, by sexually active individuals but not using effective contraception is considered to have unmet need for Family Planning. Other unmet need for family planning is spacing births and limiting births.

## 2.3 Groups of Contraceptives

### 2.3.1 Short – Acting Methods

Short-acting methods such as pills, injectables, condoms and lactational amenorrhoea can be highly effective for couples who want to delay or space pregnancies have access to sources of supply and use them consistently and correctly. These methods enable women to become pregnant again when they stop using them. Oral contraceptive Pills (OCPs) which are also known as the pills are the most popular temporary method of family planning in most of the world. The pills contain synthetic hormones and are taken daily preferably at the same time.

In sub-Saharan Africa, however, hormonal injections that are given every two or three months have overtaken the pill in popularity. Injections have the advantages of ease of use: women do not have to take something every day and can be more discreet about using a contraceptive. Male and female condoms offer dual protection; protection against unwanted pregnancy and sexually transmitted infection including HIV/AIDS. Though only about four percent of married couples reported using condoms in developing countries. Condoms have gained popularity since 1990s with the spread of the HIV/AIDS epidemic. Some couples use condom as a backup method alongside another method to prevent pregnancy.

### 2.3.2 Long-Acting Methods

Long-acting reversible methods include intrauterine contraceptive devices (IUDs) which are inserted in the uterus, and hormonal implants which are inserted under the skin in the upper part of the arm. The methods have several advantages: women have little to do once the methods is in place, the methods can be used between three to twelve years depending on the method, women can be pregnant again as soon as the device is removed (the INFO project, 2008). Women can use these methods to space pregnancies or stop childbearing as long as they return to a provider for removal or replacement.

### 2.3.3 Permanent Methods

Female sterilization also known as tuber ligation is a surgical procedure in which a woman's fallopian tubes are blocked or cut and tied to prevent the passage of the ovum through the fallopian tubes to the womb. Voluntary female sterilization is one of the most widely used methods of contraception, especially among women over age of 35, in every region of the world except sub-Saharan Africa. Among currently married women age 35–44 practicing contraception, 43 percent in Asia, 42 percent in Latin, America and 25 percent in the Middle East rely on sterilization. In contrast, only eight percent of comparable women in sub-Saharan African have undergone sterilization. Nigerian has one of the lowest rates of female sterilization in the region: Less than one percent of older women practicing contraception are sterilized.

Male sterilization also known as vasectomy is one of the least known and used methods, although it is simpler, safer, and less expensive than female sterilization. Less than one percent of couples use it in the vast majority of developing countries. China is an exception with seven

percent of couples reporting using the method. Male sterilization is more common in developed countries and exceeds female sterilization in some including the United Kingdom and Netherlands. Several reasons may account for the low use of vasectomy in most of the world. Governments have not widely promoted it: relatively few providers are trained in the procedure and many men mistakenly believe that it will affect their sex drive (FHI, 2003). Counseling is an important component of programmes offering permanent methods for women or men.

**2.4 Contraceptive use and choices**

Contraceptive use and choices vary widely in Nigeria according to type of health facility, geopolitical zone, and within urban or rural settings. Various factors, related to both supply and demand, account for these variations and contribute to the low levels of contraceptive use and choices in Nigeria. On the supply side are issues such as limited availability, quality, and cost of family planning services.

Understanding why people prefer some contraceptive methods over others can be useful for strengthening family planning programs. Having a broad range of methods available is a key element of the quality of family planning services and raises the overall level of contraceptive use (John, Ross, William *et al* 2001; Tara, Jane, Janet *et al* 2006). Family planning ideally should offer choices of methods for all stages of people's reproductive lives, so that they can have the number of children they want and at when they want them.

As a consequence of limited availability, many Nigerians (particularly in rural areas) lack access to modern contraceptive and family planning services. In areas where services do exist, their quality is often poor, with inadequate contraceptive supplies, insufficient numbers of trained service providers, poor interpersonal skills on the part of providers, and limited essential equipment. Research on factors associated with demand for contraceptives and family planning services in Nigeria has identified the relative powerlessness of women (especially in northern Nigeria), household poverty, low level of education (especially in northern Nigeria), myths and rumors about modern contraceptive methods, parity, pronatalist attitudes, and widespread preference for male children, as key influences on contraceptive use.

The ability to decide freely and responsibly the number and spacing of one's children is recognized internationally as a human right (UN 2008). There is no best method of family

planning, because woman and couples may prefer different methods and may change their preferences over time according to their individual circumstances. Having choices and balanced information increases the likelihood that women and couples will choose a method, use it effectively and avoid unintended pregnancies (Sit-Pariana , Davis, Maurice *et al.*, 1991).

Making a wide range of methods available improves quality of care in a way that benefits family planning programs. First, offering more choices increases the number of contraceptive users, which can increase the cost-effectiveness of services (Ross *and William* 2006). Second, some inexpensive methods are underused simply because people are not familiar with them. Increasing the use of these methods can lower average costs. There is a suitable contraceptive method for virtually everyone who wants one, but often people are not aware of their choices or do not have access to them. Broadening the range of available contraceptives requires greater program investments, including in education and counseling, to ensure that women and couples can benefit from new or additional methods and can make informed choices.

In addition to these factors, and especially in northern Nigeria, early marriages and early initiation of sexual activity have contributed significantly to the high fertility and subsequent higher prevalence of maternal and fetal complications. The various modern contraceptive choices and related issues peculiar to Nigeria are outlined below.

## 2.5 Review of Modern Contraceptive Choices Available

### 2.5.1 Barrier Methods

Barrier methods act by preventing spermatozoa from entering the cervical os by chemical action or by mechanical action or combined. Condoms are mechanical barriers to the passage of sperms between genital tracts of sexual partners. They are divided into two types; male and female. The condom is reported to be the main contraceptive method known of and used by Nigerian women of reproductive age (NPC and ORC macro, 2004). The extensive marketing of condoms in response to the human immunodeficiency virus (HIV) epidemic, with the active involvement of both government and nongovernmental organizations, has been responsible for this increased awareness and subsequent increase in condom use. Condoms are also the preferred choice for post-partum contraception, especially among educated women with high parity. Studies in

Nigeria have indicated that because patent medicine stores are common sources of contraceptives and because condoms are readily available over the counter at these stores, there is much less restriction on contraceptive purchases and use compared with the family planning clinics and health facilities where there are more restrictions (Monjok, Smesny, Ekabuta *et al.*, 2010).Other contraceptive methods majorly for women in this group include diaphragms, cervical caps, cervical rings, vaginal sponges, spermicides. Spermicides are chemicals placed in the vagina to immobilize or destroy sperms. They can be used alone or in combination with mechanical barriers such as condoms and diaphragms.

Barrier methods of contraception have many advantages which make them reasonable for both log-term and short-term contraception. Apart from the issues of STIs protection, the overall medical safety of these methods is appreciated as it does not cause systemic side effects nor alter a woman's hormone patterns. The emergence of the female condom offers the woman some control over her fertility and infection prevention.

### 2.5.2 Intrauterine Contraceptive Device

The IUCD is very popular and widely used in Nigeria, particularly by older married women. Studies carried out in the Nigerian cities of Lagos, Benin, Ibadan, and Ilorin specifically concerning use of and reasons for discontinuation of the IUCD indicate that the majority of women in these areas are in the age range 31.7 ± 5.7 years with a mean parity of 4.0. The most common reason for discontinuation of IUCD use was a desire for pregnancy, especially among those younger than 35 years. Other reasons for discontinuation were side effects (mainly heavy menstrual bleeding), spousal disapproval, fear of infertility, and menopause. Experiences of "having a foreign body" or a missing IUCD and expulsion were also reasons for discontinuation. In many of these instances, the levonorgestrel IUCD should be considered because it tends to reduce menstrual bleeding and has a longer duration of action which would ultimately lead to a reduction in the high IUCD discontinuation rate. Unfortunately, the levonorgestrel IUCD is not available in Nigeria. It is envisaged that the introduction of this device in many centers in Nigeria would lead to an increased acceptance of this method by multiparous and grand multiparous women. IUCDs are also a common postpartum contraceptive choice, especially for older women of high parity (Olatinwo, Anate, Balogun et al 2001,Okunlola, Owonikoko, Roberts et al 2006, Aisien 2007, Odegbola and Ogedengbe 2007).

### 2.5.3 Hormonal contraceptive methods

Hormonal contraceptives are some of the most widely used methods of contraception in Nigeria. As yet, there is no ideal method. However, hormonal contraceptives come very close to meeting all the criteria of an ideal method as they are safe, effective and reversible means of preventing unwanted pregnancies (Adekunle, 2012). Hormonal methods include oral pills, injectables and subdermal implants. These methods consist of synthetic female hormones, oestrogen and progesterone. Some contain progesterone only while others contain both oestrogen and progesterone. They act by suppressing ovulation, thickening of cervical mucus and alteration of endometrium (Robert,2003).

Oral Contraceptive Pills (OCPs), like the condom, are readily available over the counter at patent medicine and pharmacy shops in Nigeria. They are also available at the health facilities, and are the second contraceptive method of choice for women of reproductive age, particularly younger unmarried females and students. Pills are required to be taken daily at the same time in order to make most effective use of it. A significant problem in Nigeria is a general lack of adequate information about the OCP. The myth that prolonged use of the OCP leads to permanent sterility has limited its use in Nigeria and may explain why most young females in Nigeria, especially students, prefer to use abortion instead of contraception for unwanted pregnancy Also, the protective effects of OCPs are virtually unknown by the majority of women in the Nigerian population (Monjok *et al.*, 2010).

Emergency contraception also known as post coital or morning after pill is now possible using combined oral pills. However, emergency contraception is not a substitute for regular contraceptive methods. Knowledge and attitudes towards the use of emergency contraception (EC) have been reported by a national cross-sectional survey of the Nigerian population. The various groups surveyed included unmarried women in the community, female undergraduate students, health care providers, private medical practitioners, and men. All studies concluded that there is very poor knowledge of EC in Nigeria, even among private medical practitioners. There are very few programs in Nigeria designed to increase the awareness of EC in spite of the very high maternal mortality rate associated with induced abortions which occur as a consequence of unwanted pregnancies. In a cross-sectional sample of potential providers of EC conducted by the Society for Family Health, 60 (81%) approved of EC. The reasons cited for disapproval of EC in

this study included religion (5%), potential side effects (3%), and the belief that EC leads to permanent infertility (29%). In the same Society for Family Health survey, only 8% of the providers had training in EC, only two providers knew both the correct dose and correct timing of EC, and no provider knew both the correct dose and timing for Postinor®. Private medical practitioners provide a substantial proportion of family planning and reproductive health services in Nigeria, but the study by Okonofua , Omo-Aghoja , Hammed*et al.* (2009) showed that while 79.9% of doctors correctly described EC methods, only 23% reported that they had EC products in their clinics, and only 13.8% used the correct brand and doses currently available in Nigeria. Similarly a large proportion of the doctors did not know the exact timing of EC in relation to sexual intercourse, while only a few gave correct names and dosages of administration. Traditional fertility methods for post-coital EC use in Nigeria include use of gin, codeine tablets, and potash mixed with blue and lime taken with pepper seeds Okunlola *et al.*, 2006, Aisien, 2007).

There are few studies in Nigeria concerning the use of hormonal contraceptive injections and subdermal implants, probably because these are not common choices. In addition, women fear the side effects of these hormonal methods of contraception, probably because of misinformation. A study was conducted in Ibadan which followed 810 patients who used Depot Medroxy Progesterone Acetate (DMPA) as a contraceptive method over a period of 11 years. Amenorrhea, menorrhagia, and metrorrhagia were the major reasons for discontinuation of DMPA in only 11% of the patients. This low discontinuation rate is indicative of the effectiveness of this method in this population which should therefore be available for suitable women who demonstrate estrogen intolerance (Olatinwo *et al.*, 2001, Ladipo and Akinso 2005).

Available implants in Nigeria are progestin-only which is inserted under the skin of woman's upper arm by a minor surgical procedure. The levonorgestrel subdermal implant (Norplant®), introduced in 1985, and which is the most commonly available long-acting progestin-only subdermal implant then in Nigeria. During its first year of use, Norplant was shown to be highly effective and safe, and is considered an acceptable contraceptive method among Nigerian women of different ethnic groups. The pooled Norplant continuation rate was shown to be 90.1% after 12 months, 84.9% after 24 months, and 77.1% after 36 months of use (Odegbola and Ogedengbe 2007). Other studies on Norplant acceptability, effectiveness, common side effects, and reasons

for discontinuation among Nigerian women have been carried out in Benin City, Zaria, and Calabar. These studies showed a promising future for implant contraceptives in Nigeria, particularly in the Hausa and Muslim communities of northern Nigeria where contraceptive use has been generally low. Another study in Enugu, where the subdermal Norplant was inadvertently used by women for a prolonged period of time (up to 10 years) instead of the recommended five years, showed an effectiveness rate of 100%. The most common reason for not having the implant removed at five years was forgetting the date of removal and moving to another town where removal was not possible because of lack of trained health personnel (Ladipo and Akinso 2005, Aisien , 2007)

Subdermal implants are offered to women at family planning clinics in the tertiary/specialist hospitals, which are urban-based and staffed by gynecologists. A woman who migrates to a peripheral region or district after receiving the implant will not have access to trained health personnel at the local health center or rural hospital to remove the implant after five years. Other reasons for prolonged use of implants included inability to afford the cost of removal (after five years), the belief that the implant was still working, and, in a few instances, unavailability of implants at the health facility at the time of removal, so that women continue to use the implants after the recommended five years' duration (Ladipo and Akinso, 2005). Lately, a two-rod implant named Jadelle was introduced. Jadelle is an improved version of Norplant. It contains the same amount of the active ingredient in Norplant but fewer numbers of rods. Also, Implanon which is just a rod and which is used for 3 years is now available as against Uniplant which was been used for a year (Odegbola and Ogedengbe 2008).

### 2.5.4 Female sterilization

Female sterilization by tubal ligation is not a common or acceptable contraceptive choice in Nigeria. However, this method is commonly used worldwide, especially in developed countries and in some developing countries in Asia and South America. Many factors can influence decision-making about sterilization in Nigeria, including religion, ignorance, and superstition based on ancient beliefs, even among more literate members of the community. The acceptability of sterilization in Nigeria and other developing countries might be influenced by the high cost of the procedure, scarcity of skilled providers (especially in rural areas), and fear of surgical complications. Nigerian studies have shown that the demand for tubal ligation is low, but is

commonly accepted in conjunction with another surgical procedure, such as a cesarean section or laparotomy for repair of uterine rupture. Possible surgical complications when using the Pomeroy's technique of tubal ligation via laparotomy or the mini-laparotomy route (the latter being the most common) include uterine perforation, bladder and intestinal injuries, and intra-abdominal bleeding, although the occurrence of these complications was found to be minimal (Manjok *et al.*, 2010)

### 2.5.5 Male sterilization

Male sterilization or vasectomy is a rarity among Nigerian men. There were only two cases of voluntary vasectomy performed over a 30-year period at University College Hospital in Ibadan (Akinwuntan and Shittu, 2008). In a study in Jos, northern Nigeria, only 10 cases of vasectomy were recorded over a 16-year period compared with 3,675 female sterilizations. Eighty percent of the men who underwent a vasectomy were well educated, with 20% of them being medical practitioners. Although the procedure is simple, safe, and effective, it is not readily accepted as a method of fertility control in Nigeria. This low incidence has been attributed to male attitudes, whereby men are perceived to be more interested in proving their virility than in family planning. In addition, Nigerian men are afraid that vasectomy will hurt their sex drive, which they treasure for fertility reasons, especially in polygamous relationships (Mutihir , Ujah , Ekwempu Duru *et al*., 2004). For these reasons, very few men in Nigeria who know about this method would choose it as a contraceptive method.

### 2.5.6 Natural Family Planning Methods (NFP)

This involves the use of signs, symptoms and cycle data to determine when ovulation occurs. Same techniques may be used to help couples become pregnant by detecting ovulation. Couples using NFP abstain from intercourse during the at-risk fertile days. Methods of determining high-risk fertile days include cervical mucus billings method, ovulation method calendar (Rhythm method) sympto-thermal method, Lactational Amenorrhoea Method (LAM) and Standard Day Method (SDM) (National Training Manual, 2010).

#### 2.5.6.1 Rhythm Method

The rhythm method is also known as the calendar method; it works by predicting the days in which a woman is most fertile. To use this technique, a woman must chart her menstrual history

for several months in order to anticipate the dates in which she is ovulating. Women using this technique must abstain from unprotected sex on the days during which she is most fertile. The rhythm method can be somewhat effective, but it requires careful record-keeping and diligent adherence to the technique. (National Training Manual, 2010).

### 2.5.6.2 Cervical Mucus Method

Like the rhythm method, the cervical mucus method of family planning works by predicting the days in which a woman is most fertile. During ovulation, the consistency of cervical secretions will change to accommodate conception. A woman can determine her level of fertility by consistently documenting the color, texture and consistency of her vaginal mucus. The cervical mucus method is reliable only if a woman is intimately familiar with her own body and if the couple consistently uses other contraceptive techniques during fertile days.(National Training Manual, 2010).In general, breastfeeding delays the return of fertility at postpartum. However, LAM is a contraceptive methods based on exclusive breastfeeding. LAM is an effective method only under specific conditions which include woman breastfeeding exclusively, woman is amenorrhoeic and the infant is less than 6 months old.

Cycle beads also called standard day method is a natural FP method. It is based on the knowledge that the menstrual cycle is made up of a fertile phase preceded and followed by infertile days. The cycle beads helps users of the SDM to identify the fertile and infertile days of their cycle and also monitors cycle length. Based on physiological evidence that a woman's fertile phase starts five days before ovulation and lasts through the day of ovulation, the SDM allows women with cycles 26 - 32 days long to prevent pregnancy by avoiding unprotected intercourse during their fertile window – days 8 through 19 of their menstrual cycle. The couple uses cycle beads, a colour – coded string of beads that indicates fertile and non-fertile days of a cycle, as a memory aid. Cycle beads has 32 beads, each bead represents a day of the menstrual cycle. The red bead represents the first day of menstruation and of the cycle and white beads represent days when a woman can get pregnant.

## 2.6 Traditional contraceptive methods

Several family planning methods pre-date the emergence of modern birth control. Before the advent of condoms and hormone-altering drugs, men and women utilized primitive methods for preventing conception. Although some of these techniques are surprisingly effective, they require diligence and careful planning.

### 2.6.1 Abstinence

The most effective method of contraception is complete abstinence from heterosexual intercourse. As a contraceptive technique, abstinence is ultimately 100 percent effective and offers additional protection against sexually transmitted infections. Although couples using this family planning technique may engage in other forms of sexual contact, most find it challenging to abstain from intercourse entirely.

### 2.6.2 Withdrawal Method

Also known as coitus interruptus or "pulling out," the withdrawal method is one of the world's oldest family planning techniques. Withdrawal prevents conception by preventing sperm from entering the vagina. For withdrawal to work effectively, the man must fully withdraw his penis from his partner's vagina before he ejaculates. However, this method is not completely effective; sperm may leak if withdrawal is improperly timed. In some cases, viable sperm may also appear in pre-ejaculatory fluid, leading to an unplanned pregnancy.

## 2.7 Contraceptive Advances

More than 100 million women in less developed countries, or about 17 percent of all married women, would prefer to avoid a pregnancy but are not using any form of family planning. Demographers and health specialists refer to these women as having an “unmet need” for family planning—a concept that has influenced the development of family planning programs for more than 20 years. (Ashford, 2003) The unmet need for family planning has remained high in most parts of the world. Contraceptive methods currently available provide an effective protection against pregnancy, but they do not always suit every individual and couple. The most ideal contraceptive method as characterized by women all over the world should be highly effective, have prolonged duration of action and still be rapidly reversible, should not have any side effects

and complications, also easily accessible and provide privacy of use, and offer protection against HIV/AIDS and sexually transmitted infections. The most ideal method of contraception with all these characteristics is yet to be developed, and so the search continues for a method that will suit the needs of every individual and couple (Robert, 2003).

### 2.7.1 Contraceptive Methods Recently Introduced

Many new methods have been approved by the US Food and Drug Administration in recent years for use in the United States. Some are improved versions of existing methods and some are being introduced for the first time. Some methods have been available in other countries for many years but were approved by the US Food and Drug Administration very recently.

All these methods can be grouped under the following categories:

(a) Combined Hormonal Contraceptives,

Yasmin – a combined oral contraceptive pill with a newer progestin, Drospirenone

Nuva Ring – a contraceptive vaginal ring;

Ortho Evra – a transdermal contraceptive patch.

(b) Intrauterine Devices,

Levonogestrel Intrauterine System (Mirena)

New Copper IUDs

(c) Barrier methods,

Lea Shield

Panty Condom

(d) Female sterilization,

Essure

(e) Natural methods,

Standard Days Methods

(f) Male Methods.

Testosterone Undeaconate (Robert, 2010)

The development of new and improved methods of contraception for both women and men is a key component of the strategy to improve the quality of FP programs (Szarewski, 2000).

## 2.8 Benefits of family planning methods

According to Planned Parenthood of Nigeria (PPFN), there are four basic reasons for promoting family planning. Family planning is perceived by most people as fundamental human right which should be exercised by all voluntarily. By this rationale, the right of the couples and individuals, especially women to freely and voluntarily decide on and regulate their reproductive behavior is being directly promoted through family planning. Therefore family planning information and practices become very necessary to enable individuals and couples to choose the right way of reproductive conduct (Diaz, Jasis, Pachauiri *et al.*, 1999; Singh, Darroch *et al.*, 2003).

In addition, family planning practices promote the health of the mother, child, the father and therefore the community and nation (Singh *et al.*, 2003) absence of family planning will imply high maternal and child mortality and morbidity from malnutrition to communicable diseases e.g. measles and reduce life expectancy of the father. According to Population Reference Bureau, (2003), family planning practice helps to ensure that childbirths do not occur among women too early, too close, too many, too late and too costly to their lives, all of which carry tremendous amount of health risk to the mother and child.

Family planning also help by ensuring adequate regulation of birth, and saving women from excessive child bearing, family planning g practices gives women time to pursue their education, careers and other legitimate aspirations (Singh *et al.*, 2003). It also gives women more time to be involved in the socio-economic activities of their communities and the nation. According to the Population Reference Bureau (2003), effective family planning practices enable women to share their time meaningfully between their primary roles pursuit of socio-economic reproductive life.

Rapid population growth has been identified as one of the factors slowing down family and nation development and reducing the living standard of people. Therefore, for sustainable national development to take place, the rate of economic growth (which is rate of generating new resources) must remain consistently higher than the rate of growth of the population so that there is surplus resources to invest in infrastructure, social and economic development and vice versa (Population Reference Bureau2003). Therefore family planning will promote demographic and socio-economic harmony and national development.

Using family planning to meet the need for spacing and limiting births has the potential to prevent thousands of maternal mortality over the next decade. The risk that a woman will die as a result of pregnancy, childbirth or unsafe abortion is approximately one in 16 in sub-Saharan Africa. The country-specific risk of maternal death is as high as one in seven women in Angola, Malawi and Niger (Abouzahr and Wardlaw, 2003). Spacing and limiting birth also has the potential to prevent hundreds of thousands of child deaths. In each of 16 sub-Saharan countries studied between 72,000 and 1.1 million child death are expected to be averted over the next decade if all women who want to space or limit their births succeed (USAIDS, 2006b). The use of family planning is already preventing the birth of an estimated 173,000 HIV-Infected infants each year in sub-Saharan Africa (Reynolds, Steiner and Cates, 2005) providing women and couples access to a range of contraceptive choices protects their human rights and benefits public health. Strengthening LAPM services in Africa will also meet individual needs while contributing to more sustainable national programs for reproductive health and family planning.

## 2.9 Counseling

Counseling is a form of interpersonal communication in which the counselor helps the counselee to identify, clarify, resolve problem and makes an informed decision and act on that decision. It can also be described as a person to person interaction in which the counselor provides adequate information to enable the client to make an informed choice. Family planning counseling is a process by which a family planning provider uses appropriate communication skills to provide correct, adequate and unbiased information on available option to an individual, couple, or group to help them understand family planning/child spacing. The information provided will enable the client to voluntarily accept family planning and adopt a method of their choice (National Training Manual, 2010).

Family planning service provider plays an important role in FP counseling by educating clients about their options, supporting clients' choices, encouraging clients to speak, discussing clients, concerns and helping clients solve any problems they experience. Clients also play an important role in family planning by explaining their situation, preference and needs, in addition clients ask questions and participate in problems-solving and methods choice. Good FP counseling help

clients make better choices about contraceptive methods, use their methods well and continue to use their methods.

### 2.10 Conceptual frame work of the study

The PRECEDE model was adopted for this study. PRECEDE (Predisposing, Reinforcing and Enabling Constructs in Ecosystem Diagnosis and Evaluation) Model is a framework put together to identify problems. It is used to yield information which is needed to plan intervention. It is called a Planning Model. The model was developed by Green *et al.* (1980). It has served as a conceptual framework in health education plans aimed at diagnosing the health problems of a community. Green classified the factors that influence human behaviour into three:

1. **The predisposing factors:** This refers to the factors that influence people's motivation to change. These include level of knowledge, attitudes, perceptions, beliefs, and values.
2. **Enabling factors:** These are the skills and resources that make it possible for the desired behaviour to take place. For example income, accessibility to health services, personal skills, and time.
3. **Reinforcing factors:** This refers to the influences that the significant others have on people's behaviour. They include friends, peers, neighbours, and family members.

Among the contributions of the PRECEDE model is that it has encouraged and facilitated more systematic and comprehensive planning of public health programs. Sometimes practitioners and researchers attempt to address a specific health or quality of life issue in a particular group of people without knowing whether these people consider the issue to be important. Using this model as a conceptual framework, this study was able to tease out the factors that influence the choice of modern contraceptive methods, the factors responsible for the continuation of the particular chosen contraceptive methods and those factors responsible for the sustainability of the chosen methods.

## CONCEPTUAL FRAMEWORK (PRECEDE MODEL)

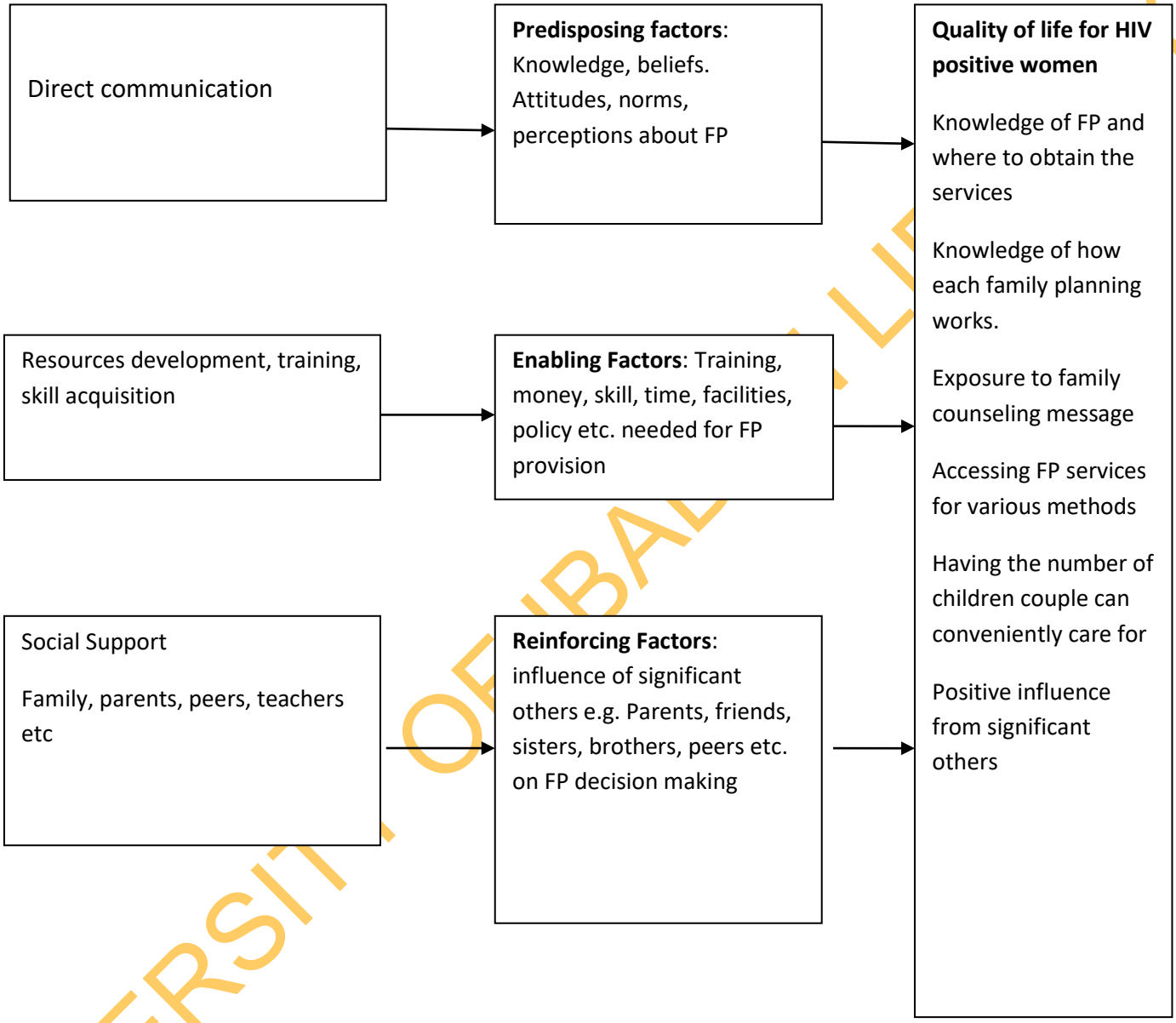


Figure 2.1: Application of the Precede model to the unmet need of contraceptive use among women living with HIV and AIDS

# CHAPTER THREE

# METHODOLOGY

## 3.1 Study design

This is a descriptive cross–sectional survey designed to investigate the unmet need and unintended pregnancies in spite of contraceptive use among HIV positive women attending the family planning clinic at the University College hospital, (UCH) and Adeoyo Maternity Family Planning clinic/Adeoyo State Hospital Ibadan.

## 3.2 Study Area:

This study was conducted at the Fertility Research Unit (FRU), also called family planning clinic, ARV PEPFAR (APIN-Plus) Clinic at the University College Hospital (UCH) and Adeoyo Maternity Family Planning clinic/Adeoyo State Hospital, in Ibadan North Local Government area of Oyo state. Antiretroviral PEPFAR Clinic was established in 2006 (for the management of HIV/AIDS patients) after AIDS Preventive Initiative in Nigeria (APIN) (a US supported program) which began its surveillance program in Nigeria in 2001 and was concluded in 2006. APIN later metamorphosed to PEPFAR in 2006 to care for HIV patients and to screen volunteers who desire to know their HIV status and these services remain free till today supported by US and Nigeria governments. In 2006, different ARV centres were established in Nigeria in different states of the federation controlled by the Federal, State and Local governments. In Ibadan, University College Hospital, Adeoyo Maternity Teaching Hospital (AMTH), Catholic Hospital (CH), Eleta are among ARV centres created in Oyo state where HIV patients can receive care, hence the choice of these three ARV centres for this study. University College Hospital is a tertiary hospital, Adeoyo Maternity Teaching Hospital is a secondary facility while Catholic Hospital Eleta (a Missionary owned facility), was selected (because of its similar status with AMTH) for the pretest of the 10% questionnaire (35) earlier administered before the main field work.

### 3.3 Study population:

The target population for this study were HIV positive women of reproductive age (18-45 years) currently using one form of modern contraceptive methods and attending Family Planning and ARV PEPFAR Clinics at the University College Hospital (UCH) and Adeoyo Maternity Family Planning clinic/Adeoyo State Hospital, Ibadan.

### 3.4 Inclusion and Exclusion Criteria

**3.4.1 Inclusion criteria:** only willing and consenting clients (HIV positive women) receiving care in any of these centres were included in the study

**3.4.2 Exclusion criteria:** Any willing and consenting clients (women) who were either HIV positive/negative and did not receive care in any of these centres were excluded in the study

**3.5Sample Size Calculation:** The sample size was calculated using Leslie Kish formula

$$n = \frac{Z^2pq}{d^2}$$

Prevalence of contraceptive use = 15% (ICF MACRO/NPC, 2008 i.e. this rate is for women who use one form of contraceptive or the other)

Where; p = 0.15,

Z=1.96; q = 1 – p = 1 -0.15 = 0.85; d = 0.05(statistical p value)

$$n = \frac{(1.96)^2 x\ 0.15 \times 0.85}{(0.05)^2}$$

$$n = \frac{3.8416 \times 0.15 \times 0.85}{}$$

0.0025

n = 0.489804

0.0025

n = 306.13

10% non-response = 30.61

n = 306.13 + 30.61

n = 336.74

n = approximately 350 women on modern contraceptive methods attending family planning clinic, UCH and ASH, Ibadan, Oyo State were assessed for this study.

### 3.6 Sampling technique

Any woman living with HIV and AIDS who is using one form of contraceptive or the other who attends and receives care at the two selected ARV clinic were selected for this study. Participants were interviewed as they came into the clinic. This process continued until the required number of sample size (350) was obtained.

### 3.7 Methods and instrument for data collection

#### 3.7.1 Semi Structured questionnaire (Quantitative data)

The only instrument used for quantitative data collection was pretested questionnaire. The questionnaire was designed using the research objectives. The questionnaire contained a combination of open and closed ended questions. The questionnaire contained five sections requiring information on respondent's demographic characteristics, unmet need of contraceptive use, challenges observed for continuation of chosen method of contraception, level of experience on previous and current use of contraceptive methods and level of satisfaction of contraceptive

choice and to the family planning method used and its effectiveness among HIV positive women in Nigeria.

### 3.7.2 Validity of instrument:

The researcher ensured the validity by consulting relevant literature. The draft of the instrument was given to the experts in the field of population and reproductive health independently and afterwards, the instruments was reviewed by experts in Health Promotion and Education, Faculty of Public Health, University of Ibadan to ensure relevance, appropriateness and adequacy of the items in each of the sub-text. The feedback was used to improve the draft. Similarly, to ensure validity of the study instruments, five research assistants were trained and employed to administer the questionnaire. The 2-hours training of the research assistants included intimating them with research objectives, sampling technique and sample size and ways of eliciting information from the respondents as some of the questions were sensitive and private. Training was conducted for the hired research assistants to intimate them with the questions in the instrument in ensuring adequate understanding of the instrument prior to the commencement of data collection. The training focused on the goal, objectives and importance of the study, study population and sampling process, how to obtain respondent informed consent and how to review questionnaires daily to ensure completeness. The skilled research assistants were also involved in pre-testing of questionnaires. On daily basis, the researcher ensured checking of questionnaires to rule out mistakes. Every mistake discovered was corrected immediately.

### 3.7.3 Reliability of instrument:

In other to ensure that the instrument measures what it was intended to measure, the questionnaires were pre-tested among thirty-five (35) HIV positive women currently using one form of modern contraceptives methods at St Mary Catholic Hospital ARV Clinic Eleta, Ibadan. Cronbach's Alpha reliability statistics was used to assess the result of the pretest. The outcome of the pretest was used to correct and modify the question the HIV positive women answered. A coefficient of 0.71 was obtained for the questionnaire that was used for data collection. This was adjudged reliable as this was greater than 0.5.

### 3.7.4 Data Collection Procedure/Process

Data collection began on the 3rd of August, 2015 and ended on the 31st October, 2015 with the administration of structured questionnaire for each respondent after obtaining their consents to participate in the research. The two ARV centres/Family planning clinics where these data collection took place were Adeoyo Maternity Teaching Hospital and University College Hospital, Ibadan. Each Trained research assistant took between 20 and 30 minutes to administer one questionnaire (containing a set of questions) to a respondent. However, a pretest had earlier been administered to 35 respondents at St Mary Catholic Hospital ARV Clinic Eleta, Ibadan. This was followed by the administration of questionnaire to 350 respondents at the two other centres. All the administered questionnaires were subjected to data processing using CSPRO 6.1.

### 3.8Data Management and Analysis

Data processing was done with CSPRO 6.1 (US Census Bureau, ICF International & Sepro S.A, 2015) and analysed with SPSS Version 22 (IBM Corporation, 2013). Data analysis included frequency distribution, reliability analysis, and factor analysis. Data was checked on daily basis for completeness and accuracy. The completed copies of the questionnaire were numbered serially for easy identification and recall purposes. Data was edited, and coded manually by the researcher using developed coding guide. Data obtained was entered using SPSS (statistical Package for social Sciences version 22). Analysis was done using inferential statistics such as Chi-square, ANOVA (Analysis of Variance). Results were discussed and presented in tables and figures.

### 3.9 Ethical consideration

Ethical approval was obtained from UI/UCH and Oyo State Ethical Review Board/Committee prior to the commencement of the study (See Appendix v). Both verbal and written informed consent was obtained from all individuals recruited for this study. Questionnaires were administered to access the demographic and other vital information relevant to the success of the study from the recruited participants. Participants were assured that all information given by them would be treated with utmost confidentiality. Participants' decision to take part in the study was voluntary. Participants were informed that they had the right to withdraw from this study at any time and at will.

### 3.10 Benefits of the study and the risk involved

This study intended to probe into the unmet need of women living with HIV and AIDS in spite of the contraceptive use to prevent unintended pregnancies and other challenges experienced. The benefits of this study included sensitization and awareness creation among this category of people in the society. This also exposed their challenges to the relevant health authorities on how to assist and support them in their health challenges. However, the risk involved is in the area of perceived stigmatization on the part of the study participants.

# CHAPTER FOUR

## RESULTS

### 4.1 Quantitative data generated from the study objectives

The results of quantitative data generated in this study are presented under the following sections: Socio-demographic characteristics, unmet need of contraceptive use among women living with HIV and AIDS, family planning method used by women living with HIV and AIDS and how effective are those methods, the types of contraceptive need of women living with HIV and AIDS in Nigeria, the experience of modern contraceptive methods adopted by HIV positive women in Nigeria and the level of satisfaction of modern contraceptive use among HIV positive women in Nigeria.

### 4.2 Socio-demographic Information

Age and Marriage

Background characteristics of the respondents are as shown on Table 4.1. Three hundred and fifty (350) women responded to the survey and their mean age was 37.0± 8.5. More than four-fifth of the respondents (87%) were married, 5 percent were widowed, and about three percent each were divorced or separated while 2 percent were single. Of those that ever had a union (342), 68 percent were in monogamous union and 29 percent in polygamous unions but about three percent did not respond.

Education

Two-fifth (41%) had junior secondary school (JSS) as their highest educational qualification, followed by 34 percent with senior secondary school education, 16 percent with primary, 7 percent had no formal education and less than one percent had post-secondary education. However, most (47%) of their husbands had SSS as their highest qualification, followed by 36 percent with junior secondary education, 8 percent had primary education, 6 percent had no formal education, and about one percent had post-secondary education (Table 4.2).

Occupation and Income

Almost three-fifth of the respondents (60%) were traders while 13 percent were civil servants and 12 percent were private employees. Similarly, most (32%) of their husbands were traders while more than a quarter (28%) were civil servants, 18 percent private employees, 9 percent artisans or others. Only about one percent of the women and five percent of their husbands do other jobs apart from their primary jobs (see Table 4.3). Half of the women earned below ₦240, 000 annually while half of their husbands earned ₦360,000 annually (Table 4.4).

Tribe

Most (76%) of the respondents were Yoruba, 11 percent Igbo and 7 percent Hausa. Also, 57 percent were Christians and 37 percent Muslims (Table 4.5). The reverse may have been the case if this study was carried out in any of Eastern or Northern parts of Nigeria.

**Table 4.1: Distribution of marital status of respondents**

| Characteristics | Category | Frequency | Percent |
|---|---|---|---|
| Marital Status | Married | 304 | 86.9 |
| | Single | 8 | 2.3 |
| | Separated | 10 | 2.9 |
| | Divorced | 12 | 3.4 |
| | Widowed | 16 | 4.6 |
| | Total | 350 | 100.0 |
| Type of marriage | Monogamy | 233 | 68.1 |
| | Polygamy | 99 | 28.9 |
| | No response | 10 | 2.9 |
| | Total* | 342 | 100.0 |

**Includes only ever married women*

**Table 4.2: Distribution of education of respondents and their spouses**

| Characteristics | Category | Frequency | Percent |
|---|---|---|---|
| Highest level of education<br><br>N=350 | No formal education | 26 | 7.4 |
| | Primary | 55 | 15.7 |
| | JSS | 144 | 41.1 |
| | SSS | 120 | 34.3 |
| | NCE/Poly | 1 | 0.3 |
| | No response | 4 | 1.1 |
| | Total | 350 | 100.0 |
| Highest education of husband<br><br>Total* N=342 | No formal education | 22 | 6.4 |
| | Primary | 27 | 7.9 |
| | JSS | 125 | 36.5 |
| | SSS | 162 | 47.4 |
| | NCE/Poly | 3 | 0.9 |
| | University Degree | 1 | 0.3 |
| | No response | 2 | 0.6 |

**Includes only ever married women*

**Table 4.3: Socio-demographic information of respondents**

| Characteristics | Category | Frequency | Percent |
|---|---|---|---|
| Occupation N=350 | Trading | 210 | 60.0 |
| | Artisans | 26 | 7.4 |
| | Private sector/ Company worker | 42 | 12.0 |
| | Housewife | 13 | 3.7 |
| | Civil servant | 44 | 12.6 |
| | Others | 13 | 3.7 |
| | No response | 2 | 0.6 |
| Husband's occupation N=342* | Trading | 108 | 31.6 |
| | Artisans | 32 | 9.4 |
| | Unemployed | 4 | 1.2 |
| | Civil Servant | 95 | 27.8 |
| | Private sector/ Company worker | 60 | 17.5 |
| | Others | 32 | 9.4 |
| | No response | 11 | 3.2 |
| Respondent's other occupation N=350 | None | 315 | 90.0 |
| | Trading | 5 | 1.4 |
| | Private business | 30 | 8.6 |
| | Total | 350 | 100.0 |
| Husband's other occupation N=342* | None | 325 | 95.0 |
| | Private business | 17 | 5.0 |

**Includes only ever married women*

**Table 4.4: Women's and their Husband's Income**

| Statistics | Woman's income (Naira) per annum | Husband's income per annum (Naira) |
|---|---|---|
| Mean | 338,953.96 | 526,942.53 |
| Std. Deviation | 320,183.02 | 455,006.86 |
| Minimum | 12,000.00 | 12,000.00 |
| Maximum | 1,800,000.00 | 3,000,000.00 |

**Table 4.5: Distribution of tribe and religion of respondents**

| Characteristics | Category | Frequency | Percent |
|---|---|---|---|
| Tribe | Yoruba | 267 | 76.3 |
| | Hausa | 24 | 6.9 |
| | Igbo | 38 | 10.9 |
| | Others | 14 | 4.0 |
| | No response | 7 | 2.0 |
| | Total | 350 | 100.0 |
| Religion | Islam | 130 | 37.1 |
| | Christianity | 200 | 57.1 |
| | Traditional religion | 7 | 2.0 |
| | Others | 4 | 1.1 |
| | No response | 9 | 2.6 |
| | Total | 350 | 100.0 |

### 4.3 Unmet needs in contraceptives use among women living with HIV and AIDS

Table 4.6 shows the distribution of birth history of the women. About 97 percent (340) of the women had had at least one birth. Almost half (46.0%) of the women had had 4-6 previous pregnancies, 44 percent had 1-3 pregnancies while 7 percent had more than 6 previous pregnancies. Of those that ever had a pregnancy (340 women), 62 percent had 1-3 live births, 33 percent had 4-6 live births while 3 percent had above 6 live births. Furthermore, 70 percent have 1-3 children alive, 25 percent have 4-6 children alive, and 2 percent have above 6 children alive. While above half (32%) do not want any more pregnancies, 49 percent still wanted 1-3 children more and 2 percent want more than 6 children more.

Decision-Making and Pregnancy Complications

More than a third (36%) indicated that their decision for the number of children was jointly made with their husbands, 27 percent made the decision alone while 23 percent indicated their husbands made the decisions for them (see Table 4.7).

Most of the women indicated that their sexual encounters were once a week (23.0%) or twice a week (20.0%) or infrequent (20.0%) while about 10 percent each indicated daily sexual intercourse or three times a week, as shown on Table 4.7.

More than four-fifth (83.0%) had live births from their last pregnancies while others had various challenges as shown on Table 4.7. About 8 percent experienced induced abortion, 3percent experienced still birth, and less than one percent had spontaneous abortion.

About 9 percent of the women had experienced complication during pregnancies of which more than half (52.0%) experienced prolonged labour, and 23 percent had still birth and 26 percent did not respond.

**Table 4.6: Distribution of birth history of the respondents**

| Characteristics | Categories | Frequency | Percent |
|---|---|---|---|
| Number of previous pregnancies | None | 4 | 1.1 |
| | 1-3 | 155 | 44.3 |
| | 4-6 | 161 | 46.0 |
| | Above 6 | 24 | 6.9 |
| | No response | 6 | 1.7 |
| | Total | 350 | 100.0 |
| Number of previous deliveries | None | 5 | 1.5 |
| | 1-3 | 211 | 62.1 |
| | 4-6 | 111 | 32.6 |
| | Above 6 | 11 | 3.2 |
| | No response | 2 | 0.6 |
| | Total* | 340 | 100.0 |
| Number of children alive | None | 7 | 2.1 |
| | 1-3 | 239 | 70.3 |
| | 4-6 | 86 | 25.3 |
| | Above 6 | 6 | 1.8 |
| | No response | 2 | 0.6 |
| | Total* | 340 | 100.0 |
| Number of children you wish to have more | None | 112 | 32.0 |
| | 1-3 | 172 | 49.1 |
| | 4-6 | 25 | 7.1 |
| | Above 6 | 6 | 1.7 |
| | No response | 35 | 10.0 |
| | Total | 350 | 100.0 |

**Table 4.7: Decision making on pregnancies and complications**

| Decision making on pregnancies and complications | | Frequency | Percent |
|---|---|---|---|
| Whose decision is the desired number of children? N=350 | Self | 96 | 27.4 |
| | Husband | 79 | 22.6 |
| | Joint | 125 | 35.7 |
| | In-law | 2 | 0.6 |
| | Family/Relations | 2 | 0.6 |
| | Friend | 5 | 1.4 |
| | Others | 7 | 2.0 |
| | No response | 34 | 9.7 |
| How often do you have intercourse weekly? N=350 | Daily | 34 | 9.7 |
| | Once | 82 | 23.4 |
| | Twice | 71 | 20.3 |
| | Three times | 35 | 10.0 |
| | Four times | 15 | 4.3 |
| | Five time and over | 12 | 3.4 |
| | Infrequent | 70 | 20.0 |
| | No response | 31 | 8.9 |
| Outcome of last pregnancy N=350 | Live birth | 292 | 83.4 |
| | Induced abortion | 27 | 7.7 |
| | Still birth | 10 | 2.9 |
| | Spontaneous abortion | 1 | 0.3 |
| | No response | 20 | 5.7 |
| Complication of last pregnancy | Yes | 31 | 8.9 |
| | No | 298 | 85.1 |
| | No response | 21 | 6.0 |
| | Total | 350 | 100.0 |
| If yes, specify Total* N=31 | Prolonged labour | 16 | 51.6 |
| | Still birth | 7 | 22.6 |
| | No response | 8 | 25.8 |

**Based on Q 31 which indicated they had experienced complication in pregnancy only.*

## 4.4: Family planning method used by women living with HIV and AIDS

### Use of Modern Contraceptives

More than four-fifth (84.0%) of the women indicated they had ever used contraceptives of which most had used condom (55.0%), 20 percent had used oral pills, 17 percent had used injectable contraceptives and other methods are as shown on Figure 4.1.

A third (33.0%) indicated that their decision to use contraceptives was a joint decision with their husbands, 24 percent made the decision alone and 27 percent indicated it was their husbands' decision, as shown on Table 4.8. Almost half (48.0%) of the women's husbands pay for the family planning (FP) services, 30 percent pay themselves and 13 percent pay jointly, as shown on Table 4.8. It should be however noted that some of the women used contraceptives, especially condom, for prevention infection transmission.

### Current Use of Contraceptives

More than two-third (68.0%) of the women indicated they were currently using modern contraceptives of which 54 percent were using condoms, 12 percent injectable contraceptives, 11 percent oral pills or IUCD while others used other methods as shown on Figure 4.2.

With regards to the reason for contraception almost more than half (52.0%) use contraceptives to prevent pregnancy, 24 percent for spacing, 11 percent for limiting, and 10 percent for delaying, as shown on Figure 4.3.

More than a quarter of the women indicated they had been using contraceptive for more than 6 years, 22 percent for three years, 17 percent for two years and about 11 percent each for 4 or 5 years while 8 percent had been using modern contraceptives for about a year. On the average, half of the women had been using their current modern contraceptive methods for four years. This corroborates the high level of knowledge of contraceptives among the women as most had been using it for a long time.

**Social Factors influencing contraceptive use**

Table 4.9 presents some social factors that influence contraceptive use among women living with HIV/AIDS. Almost three-quarter (73%) of the women indicated that their husbands support the use of modern contraceptives. More than half (58.0%) indicate that they have friends that use contraceptives. More than four-fifth (86%) have never tried traditional methods while 11 percent had tried traditional methods. More than a quarter (76%) indicated that their choice of modern contraceptives was not based on the choice of their mother or mother-in-law. More than three-quarter (79%) also indicated that they were knowledgeable about modern contraceptives while 17 percent were not.

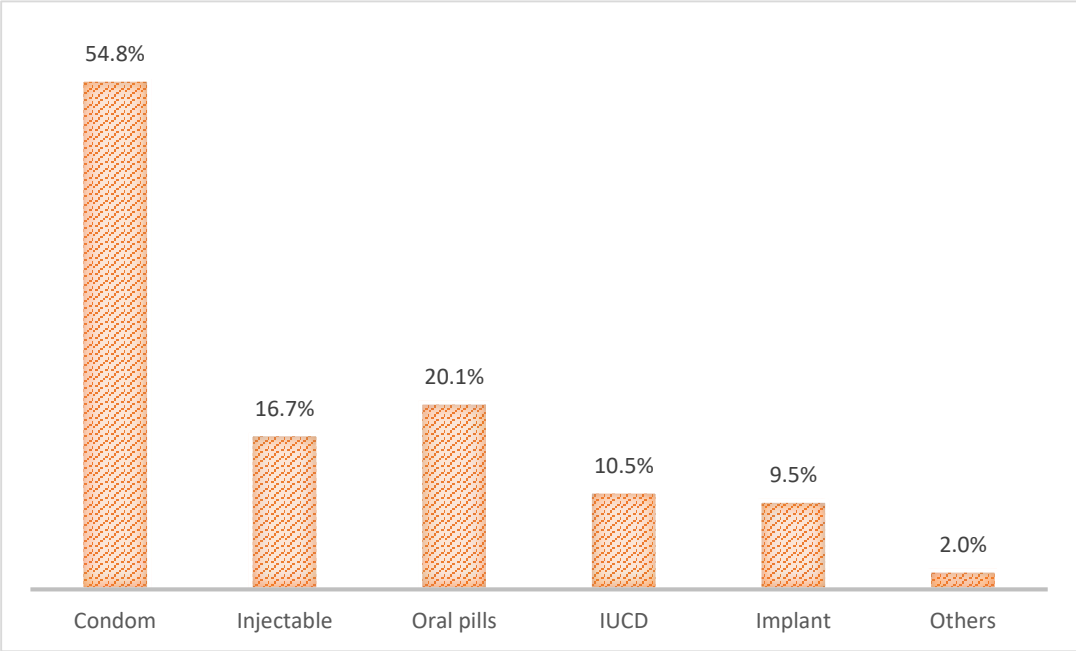


**Figure 4.1: Use of modern contraceptives**

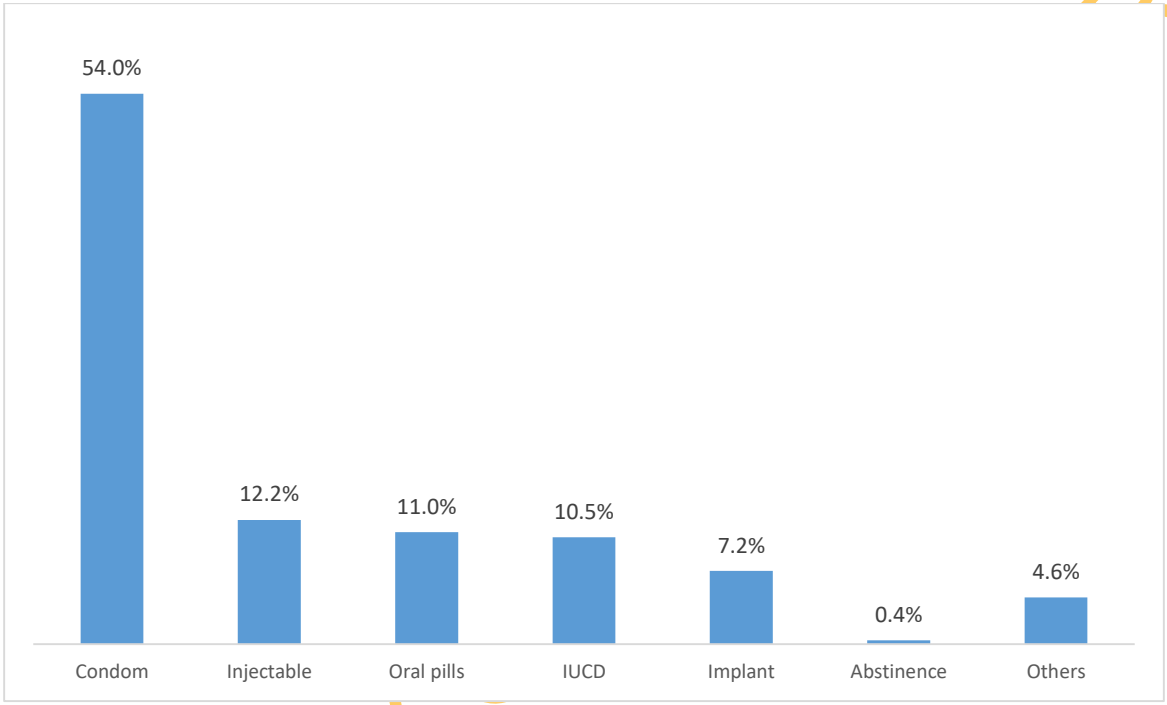


**Figure 4.2: Current use of modern contraceptives**

**Table 4.8: Influence and funding for contraceptive use**

| Influence and funding for contraceptive use | | Frequency | Percent |
|---|---|---|---|
| Who influenced decision on using modern contraceptives | Never used FP | 15 | 5.1 |
| | Self | 70 | 23.8 |
| | Husband | 78 | 26.5 |
| | Joint | 97 | 33.0 |
| | In-law | 3 | 1.0 |
| | Family/Relations | 4 | 1.4 |
| | Friend | 12 | 4.1 |
| | Provider | 7 | 2.4 |
| | No response | 8 | 2.7 |
| | Total | 294 | 100.0 |
| Who pays for family planning services | Self | 87 | 29.6 |
| | Husband | 141 | 48.0 |
| | Joint | 37 | 12.6 |
| | In-law | 2 | 0.7 |
| | Family/Relations | 4 | 1.4 |
| | Friend | 3 | 1.0 |
| | Others | 2 | 0.7 |
| | No response | 18 | 6.1 |
| | Total | 294 | 100.0 |

**Table 4.9: Social factors influencing contraceptive use**

| Social factors influencing contraceptive use | | Frequency | Percent |
|---|---|---|---|
| My husband supports the use of modern contraceptives | Yes | 257 | 73.4 |
| | No | 84 | 24.0 |
| | No response | 9 | 2.6 |
| | Total | 350 | 100.0 |
| I have friends who use modern contraceptives | Yes | 204 | 58.3 |
| | No | 137 | 39.1 |
| | No response | 9 | 2.6 |
| | Total | 350 | 100.0 |
| Tried a traditional method and pregnancy resulted | Yes | 40 | 11.4 |
| | No | 301 | 86.0 |
| | No response | 9 | 2.6 |
| | Total | 350 | 100.0 |
| Use of modern contraceptives worked for my mother/mother-in-law | Yes | 75 | 21.4 |
| | No | 266 | 76.0 |
| | No response | 9 | 2.6 |
| | Total | 350 | 100.0 |
| I am knowledgeable about the benefits of modern contraceptives | Yes | 278 | 79.4 |
| | No | 58 | 16.6 |
| | No response | 14 | 4.0 |
| | Total | 350 | 100.0 |

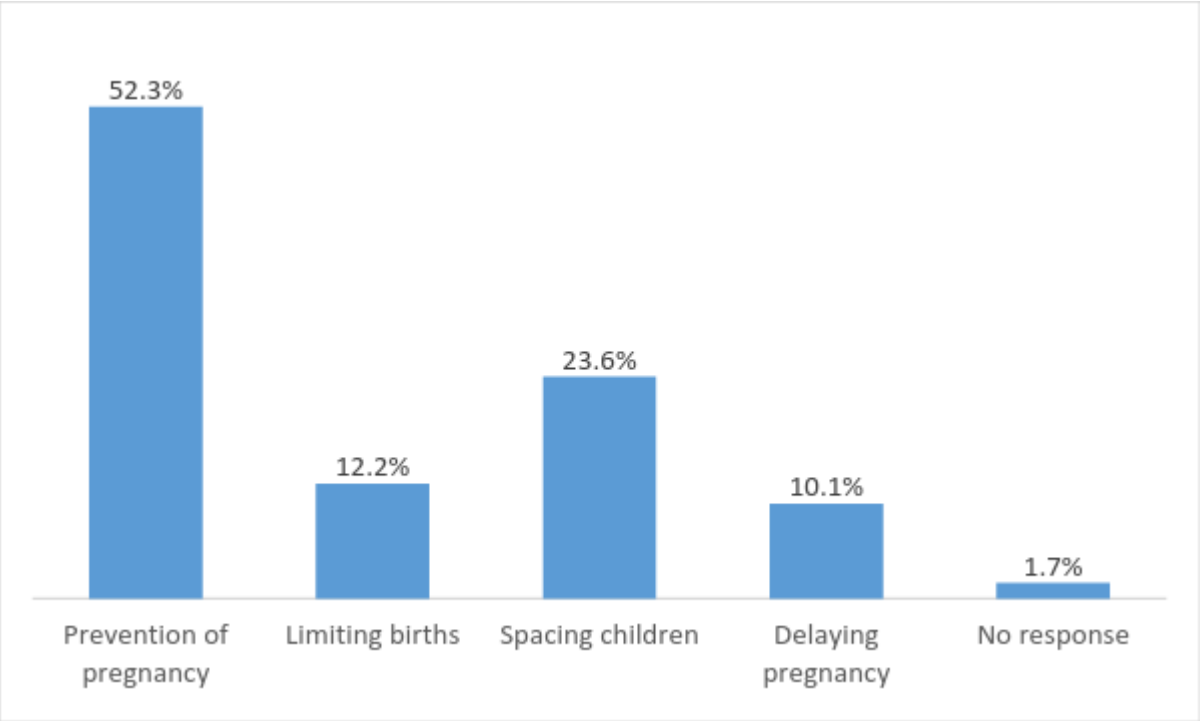


**Figure 4.3: Reasons for use of contraceptives**

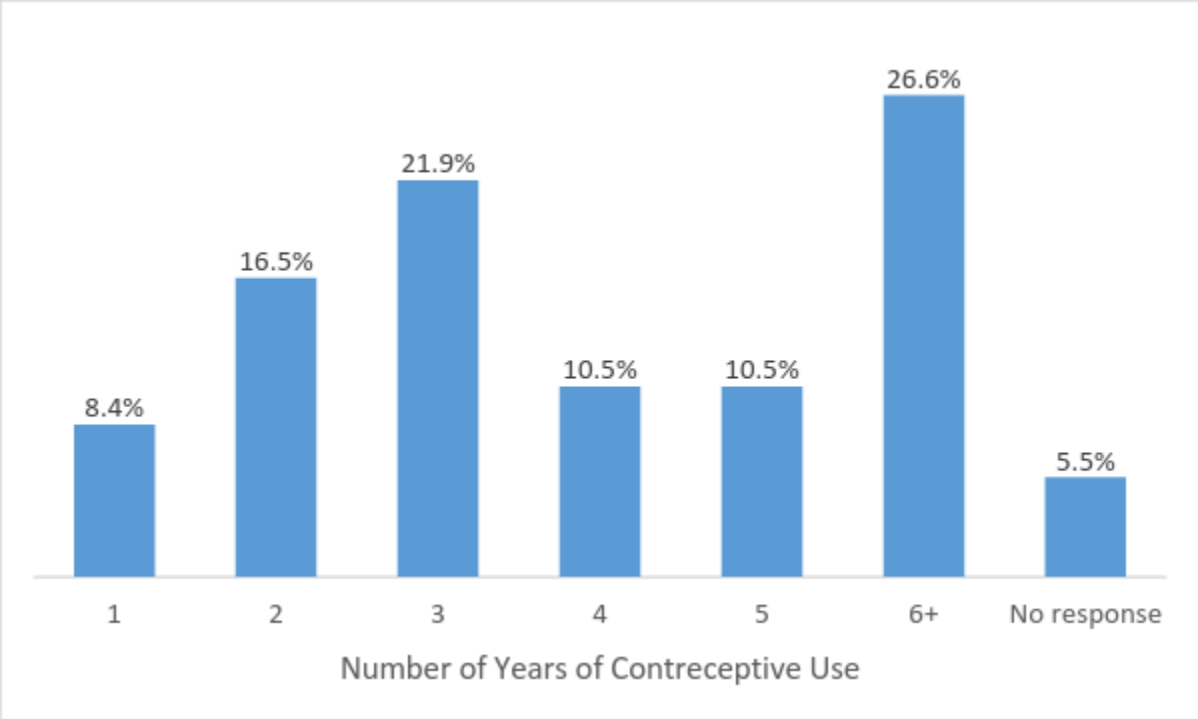


**Figure 4.4: Number of years of using modern contraceptives**

**4.5: The types of contraceptive need of women living with HIV and AIDS in Nigeria,**

Most of the women (40.0%) chose their current methods because of safety followed by 24 percent that chose their method because of availability, 15 percent for affordability, 13 percent for effectiveness, and 5 percent for reversibility, as shown on Table 4.10.

Furthermore, the women indicated their preference for their chosen methods over other methods. Almost a quarter (23.0%) chose their methods over others because of fewer side effects, followed by 21 percent that indicated cost effectiveness, 19 percent for availability, 18 percent for privacy, 8 percent for infrequent appointments, and 7 percent for independence of coitus, as shown on Table 4.10.

Table 4.11 shows the perception of the women about the factors that influence their continuation of contraceptives. Most of the women were influenced by all the items except their mothers or mothers-in-law, as well as a sizeable number (35.0%) indicated that they had to see their providers in order to use the contraceptive methods of their choice.

**Table 4.10: Preference of respondents for their chosen methods**

| *Preference of respondents for their chosen methods* | | Frequency | Percent |
|---|---|---|---|
| What do you like about your chosen method? N=237 | Availability | 57 | 24.1 |
| | Affordability | 35 | 14.8 |
| | Safety | 94 | 39.7 |
| | Reversibility | 11 | 4.6 |
| | Effectiveness | 31 | 13.1 |
| | No weight gain | 6 | 2.5 |
| | Others | 3 | 1.3 |
| What do you find in this method that is not present in others? N=237 | Availability | 45 | 19.0 |
| | Cost effective/Cheap | 50 | 21.1 |
| | Fewer side effects | 54 | 22.8 |
| | Privacy | 42 | 17.7 |
| | Independence of coitus | 17 | 7.2 |
| | Infrequence of appointments | 20 | 8.4 |
| | Others | 3 | 1.3 |
| | No response | 6 | 2.5 |

**Table 4.11: Factors influencing continuation of chosen method**

| Factors influencing continuation of chosen method | | Frequency | Percent |
|---|---|---|---|
| Cost of chosen method is more affordable than others | Yes | No | Total |
| | 203(85.7) | 34(14.3) | 237 |
| My husband prefers/supports this method | Yes | No | Total |
| | 206(86.9) | 31(13.1) | 237 |
| My friend/Mother/Mother-in-law influenced the sustenance of method I am using | Yes | No | Total |
| | 62(26.2) | 175(73.8) | 237 |
| It has minimal side effect | Yes | No | Total |
| | 193(81.8) | 43(18.2) | 236 |
| It is available all the time | Yes | No | Total |
| | 224(94.5) | 13(5.5) | 237 |
| It is easy to discontinue | Yes | No | Total |
| | 212(89.5) | 25(10.5) | 237 |
| I do not have to see a provider before using my method | Yes | No | Total |
| | 154(65.0) | 83(35.0) | 237 |
| The method does not disturb sexual intercourse | Yes | No | Total |
| | 193(81.4) | 44(18.6) | 237 |

## 4.6: The experience of modern contraceptive methods adopted by HIV positive women in Nigeria

Experience of Contraceptive Use

Table 4.12 shows the distribution of use of contraceptives. Only respondents that indicated the contraceptive methods they had used and who were using contraceptives among 350 respondents were 237 women. Ever-used and changed-method are based on the number of women that had indicated they used that particular contraceptive method. Condom is the most ever used method (62.0%) and method still in use (70.0%) while implant is the least of the ever used methods (10%) but 46 percent of the those using it are still using it, and it is the least changed method (4.0%). Oral pills are the most changed method (22.0%). Some of the reasons for changing methods included side effect (9.5%) need for family planning (7.0%), marriage (5.0%), scanty menses (5.0%), over-weight (7.0%), and need for pregnancy (7.0%).

Modern Contraceptive Use Service Provision

Table 4.13 shows the distribution of the respondents that received counseling before choosing their contraceptive methods. Most of the respondents (74%) were counseled before choosing a method and most were counseled by nurses (54%) and doctors (43%). Majority (29%) also chose their methods because of effectiveness followed by 21 percent that chose because of low cost, 20 percent because of availability and 11 percent because of few side effects.

Availability of Contraceptive Methods

Sixty-one percent of the women indicated that the methods they choose were not the only ones available at the time of choice. Of those who had alternative methods available, 50 percent indicated oral pills, 38 percent indicated injectable contraceptives, and 21 percent indicated implant, as shown on Table 4.14.

Challenges with Contraceptive Use

Table 4.14 shows the problems encountered by the women in the use of contraceptives. More than a tenth (11%) have encountered problems with the methods they used, of which the prominent problems include lack of menses (27%), scanty menses (15%), heavy menses (12%), and so on as shown on Table 4.15. With regards to how the women intend to handle the problems, 54 percent indicated they would seek solution from providers, 15 percent would adopt traditional methods, 12 percent would change method while about 4 percent don't know what to do.

**Table 4.12: Experience of use of contraceptives**

| | Ever Used | | Still in use | | Changed Method | |
|---|---|---|---|---|---|---|
| **Method** | **Frequency** | **Percent** | **Frequency** | **Percent** | **Frequency** | **Percent** |
| Abstinence | 56 | 23.7% | 8 | 14.3% | 4 | 7.1% |
| Withdrawal | 41 | 17.4% | 7 | 17.5% | 3 | 7.3% |
| Condom | 147 | 62.3% | 103 | 70.1% | 11 | 7.5% |
| Pills | 69 | 29.1% | 26 | 40.0% | 15 | 21.7% |
| IUCD | 35 | 14.8% | 20 | 62.5% | 5 | 14.3% |
| Injectable | 46 | 19.4% | 16 | 37.2% | 9 | 19.6% |
| Implant | 24 | 10.1% | 11 | 45.8% | 1 | 4.2% |
| Others | 7 | 3.0% | 1 | 14.3% | 1 | 14.3% |

**Table 4.13: Distribution of women that received Counselling before making a choice of contraceptive method**

| | | Frequency | Percent |
|---|---|---|---|
| Counseled before making decision on the choice of modern contraceptive? N=237 | Yes | 175 | 73.8 |
| | No | 57 | 24.1 |
| | No response | 5 | 2.1 |
| Counseled by Total* N=175 | Nurse | 94 | 53.7 |
| | Doctor | 75 | 42.9 |
| | Student Nurse | 1 | 0.6 |
| | Friend | 2 | 1.1 |
| | No response | 3 | 1.7 |
| Lesson for choice of method in use N=237 | It is cheap | 49 | 20.7 |
| | It is easily available | 47 | 19.8 |
| | It is highly effective | 68 | 28.7 |
| | Has few side effects | 26 | 11.0 |
| | My partner likes it | 16 | 6.8 |
| | It is long acting | 10 | 4.2 |
| | It offers privacy | 16 | 6.8 |
| | No response | 5 | 2.1 |

**Based on only those that had received counseling.*

**Table 4.14: Availability of alternative methods before making choice**

| | | Frequency | Percentage |
|---|---|---|---|
| Choice of method was the only method available at place of service N=294 | Yes | 69 | 23.5 |
| | No | 180 | 61.2 |
| | No response | 45 | 15.3 |
| If no, which other methods were available Total* N=180 | Abstinence | 10 | 5.6 |
| | Withdrawal | 9 | 5.0 |
| | Oral pills | 90 | 50.0 |
| | IUCD | 33 | 18.3 |
| | Injectable | 69 | 38.3 |
| | Implant | 37 | 20.6 |
| | Male condom | 31 | 17.2 |
| | Female condom | 4 | 2.2 |

**Based on the 180 that indicated that other methods were available at their time of choice.*

**Table 4.15: Problems with contraceptive use**

| Problems with contraceptive use | | Frequency | Percentage |
|---|---|---|---|
| Ever encountered any problem since using this method N=237 | Yes | 26 | 11.0 |
| | No | 193 | 81.4 |
| | No response | 18 | 7.6 |
| Types of problem N=26 | Failure | 2 | 7.7 |
| | No menses | 7 | 26.9 |
| | Scanty menses | 4 | 15.4 |
| | Heavy menses | 3 | 11.5 |
| | Inconvenience | 2 | 7.7 |
| | Weight gain | 1 | 3.8 |
| | Weight loss | 1 | 3.8 |
| | Partner does not like it | 1 | 3.8 |
| | Headache | 2 | 7.7 |
| | Others | 2 | 7.7 |
| | No response | 2 | 7.7 |
| How do you intend to overcome any problem since stating your current method? N=26 | Change method | 3 | 11.5 |
| | Seek for solution from the providers | 14 | 53.8 |
| | Adopt traditional methods of contraception | 4 | 15.4 |
| | Don't know | 1 | 3.8 |
| | No response | 4 | 15.4 |

## 4.7: The level of satisfaction of modern contraceptive use among respondents

Satisfaction with Method

The women also expressed the benefits they derived from the modern methods as shown on Table 4.16. More than four-fifth (83%) indicated that they were satisfied with their current contraceptive methods while 8 percent indicated they were not satisfied. Of those that were satisfied, they their satisfaction were based on the effectiveness of the chosen method (37%), the methods' ability to prevent pregnancy (18%) or limit childbirth (14%), and allow child spacing (5%). Among those that are not satisfied with their contraceptive methods, the prominent reason was side effect (20%) followed by heavy menses (10%), as shown on Table 4.16.

Benefits of Using Modern Contraceptives

Table 4.17 shows the distribution of benefits derived from the use of modern contraceptives among women living with HIV/AIDS. Most of the them laud the contraceptives for effectiveness (21%) followed by about 10 percent that indicated that the methods had no side effects, and about 7 percent each that indicated allowance for child spacing or prevention of pregnancy.

Client Satisfaction

Table 4.18 shows the distribution of satisfaction of clients with the FP services received. The Table revealed a highly level of satisfaction among the respondents. More than nine in ten of the women were satisfied with the information they received about contraceptive methods (95%) while 81 percent were satisfied with the availability of the methods, and 77 percent each were satisfied with the fact that the use of family planning positively affected every area of their lives. However, the clients were not satisfied with waiting time at the clinic (24%), distance of the clinic to the homes (34%) and the side effect of the methods (20%).

**Table 4.16: Satisfaction with current method**

| Satisfaction with current method | | Frequency | Percent |
|---|---|---|---|
| Has the current method satisfied your reason for contraceptive use<br>N=237 | Yes | 197 | 83.1 |
| | No | 20 | 8.4 |
| | No response | 20 | 8.4 |
| If yes, how<br><br>N=197 | It is effective | 73 | 37.1 |
| | Preventing pregnancy | 36 | 18.3 |
| | Limiting Childbirth | 28 | 14.2 |
| | Allowed spacing among children | 10 | 5.1 |
| | Prevented husband from contracting HIV | 6 | 3.0 |
| | Offers privacy | 4 | 2.0 |
| | It is available | 3 | 1.5 |
| | It is affordable | 1 | 0.5 |
| | Has few side effects | 1 | 0.5 |
| | Personal convenience | 1 | 0.5 |
| | Has few side effects | 1 | 0.5 |
| | No response | 33 | 16.8 |
| Reason for non-satisfaction<br><br>N=20 | Side fact | 4 | 20.0 |
| | Heavy menses | 2 | 10.0 |
| | No reason | 2 | 10.0 |
| | Scared I might not get pregnant again | 1 | 5.0 |
| | Forgetfulness | 1 | 5.0 |
| | No response | 10 | 50.0 |

**Table 4.17: Benefits derived from the use of modern contraceptives**

**N=237**

| Benefits | Frequency | Percentage |
|---|---|---|
| Effectiveness | 49 | 20.7 |
| It has no side effects | 23 | 9.7 |
| Allowed spacing among children | 17 | 7.2 |
| Prevention of pregnancy | 17 | 7.2 |
| Helps in limiting birth | 7 | 3.0 |
| Prevents infection transmission | 6 | 2.5 |
| Has few side effects | 6 | 2.5 |
| Delaying pregnancy | 6 | 2.5 |
| Availability | 4 | 1.7 |
| For safety purposes | 4 | 1.7 |
| Privacy | 3 | 1.3 |
| It makes me fat | 3 | 1.3 |
| Helps to have more sex | 2 | 0.8 |
| Affordable | 1 | 0.4 |
| No response | 89 | 37.6 |

**Table 4.18: Client satisfaction from the use of modern contraceptives**

| Client satisfaction | Satisfied (%) | Not satisfied | Undecided | No response |
|---|---|---|---|---|
| Information about contraceptive method | 224 (94.5) | 7(3.0) | 4(1.8) | 2(0.9) |
| Waiting time at the clinic | 158 (66.7) | 57(24.1) | 18(7.6) | 4(1.7) |
| Distance of the clinic from my house | 132 (55.7) | 81(34.2) | 21(8.9) | 3(1.3) |
| Use of family planning positively affect | 183(77.2) | 15(6.3) | 34(14.3) | 5(2.1) |
| Side effect of the method | 150 (63.3) | 48(20.3) | 36(15.2) | 3(1.3) |
| Cost of obtaining card at the clinic | 183(77.2) | 31(13.1) | 18(7.6) | 5(2.1) |
| Attitude of the health workers | 186 (78.5) | 32(13.5) | 16(6.8) | 3(1.3) |
| Its availability | 192 (81.0) | 14(5.9) | 6(2.5) | 25(10.5) |

# CHAPTER FIVE

## DISCUSSION, CONCLUSION AND RECOMMENDATIONS

This chapter is organized into five sub-sections as follows: Socio-demographic characteristics, unmet need of contraceptive use among women living with HIV and AIDS, family planning method used by women living with HIV and AIDS and how effective are those methods, the types of contraceptive need of women living with HIV and AIDS in Nigeria, the experience of modern contraceptive methods adopted by HIV positive women in Nigeria and the level of satisfaction of modern contraceptive use among HIV positive women in Nigeria.

### 5.1 Socio-demographic characteristics of the respondents

All the respondents were women living with HIV and AIDS and currently using one form of modern contraceptive methods. This was so because only women living with HIV and AIDS who were also currently using one form of modern contraceptive methods were targeted and enrolled into the study after obtaining their consents to participate. The average age of the respondents was 37.0 ± 0.05 while the average family size was 8.5; this was slightly higher than that of the national figure which stood at 5.5 in 2013 (ICF MACRO/NPC, 2014). Findings of this study revealed that a large proportion of the respondents aged between 22 and 49 and which is still in conformity with the reproductive age group 15-49years.

Large number of the respondents (86.9%) were married and in monogamous union despite their HIV status. This is expected because majority of married women adopt family planning to prevent unwanted pregnancy and to space births. According to Maharaj and Cleland (2004), married women are more likely to use modern contraceptives than their unmarried counterparts. This claim is contrary to the findings by Teye *et al.*(2004) who argued that in some societies the level of contraceptive use among young unmarried women may be as high as that among married women irrespective of their HIV status. It is advisable for anyone who cannot avoid having sex to marry than having premarital affairs. Majority of them were also in monogamous union (68.1%), possibly because they are well educated. It is not surprising that majority of the

respondents were Yoruba (76.3%) This is possible because the two HIV clinics are situated in Ibadan (a Yoruba community).

The overall attainment of the respondents' level of education showed that majority had secondary education (JSS=41.1%; SSS=34.3%) followed by primary education (15.7%) while the least was tertiary education with 0.3%. This must be as a result of the hospitals being secondary and tertiary and majority of the people patronizing these HIV clinics will be averagely educated. It is also worthy to know that the level of their education is almost the same with that of their husbands'. This may be so because most men with higher education will want to marry female in the same categories. However, some of the respondents (7.4%) did not have any formal education. This therefore supports the general agreement that level of education positively influences modern contraceptive use and choice. Some studies have shown that this relationship is by no means universal. For instance, a study in Jordan (Teye, 2013) showed that the rate of modern contraceptive use among women with primary education is not significantly different from that of their counterparts with secondary education and this report is in contrast with this study with rates of respondents in secondary higher than those with primary education. Similarly, a recent study in Mali (Kaggwa *et al.*, 2008) did not show any relationship between level of education and modern contraceptive use. Information on the type of modern contraceptive methods being used in any society is important not only for marketing purposes, but also for addressing the factors that make some methods unpopular.

In this study, large number of the women living with HIV and AIDS who were using modern contraceptives at the time of the survey who were asked to state the methods that they were currently using indicated that it provided them with satisfaction. This is in concordance with the study of Delvaux and Nostlinger,(2007) which reported high percentage of respondent's satisfaction with their choice of contraceptive. However, some of them still experienced challenges of non-satisfaction as reported by Duru *et al.* (2011).Some of these challenges may not be financial since large numbers of the respondents and their husbands are gainfully employed, have some other forms of jobs they do and make good income per annum. According to Teye, (2013), there is no relationship between satisfaction and choice of contraceptive but the level of education has some influence in their choice. This may be due to the fact that many of

them have good education which gave them good job opportunities while others who were not so educated responded that they also indulge in one form of business or trade for their livelihood through which their income is generated.

## 5.2 Unmet need of contraceptive use among women living with HIV and AIDS

In order to respond to the challenges of unmet reproductive health needs of HIV-infected women, major international organizations including the United Nations have called for stronger linkages between reproductive health and HIV/AIDS management and care (UNFPA/UNAIDS/FCI, 2004). Understanding the fertility desires of HIV-infected women who know their HIV status, their contraceptive choices and the pregnancy rates is critical in meeting their reproductive health needs and preventing unwanted pregnancies.

Almost all the participants had had at least one birth despite claiming to have been using one form of contraceptive or the other to prevent unintended pregnancy. This is in contrast with the finding of Ashford, (2003) who reported that inappropriate of contraceptive may lead to unmet need. Also, many of the women had had different categories of previous pregnancies resulting in different challenges ranging from live births, still births while others had had various numbers of live births despite using various forms of protection through contraceptive use. This is in agreement with the study of Darroch and Singh, (2003) who reported similar experience with among women using contraceptive to prevent unwanted pregnancies. Nevertheless, the number of surviving children has a positive and significant relationship with modern and any contraceptive methods which are appropriately chosen when properly guided. Therefore, having more or no more children was a joint decision by the couples according to the respondents and this is in concordance with the work of Kurtoglu and Arpaci, (2011).

Uptake of modern contraceptives was a joint decision by the couples and almost half of the respondents claimed that their husbands pay for the family planning service. This result is corroborated by studies elsewhere in the literature including Okech *et al.,* 2014 who in a more recent study among women in the reproductive ages in Kenya found that, income level, proximity to the provider, religious affiliation of the woman, partner's approval are some of the key factors driving contraceptive use in Kenya. Other studies elsewhere, using proxies for husband's approval or woman's autonomy have shown a strong effect on use of contraceptives

among women (Dawn, 2004; Delvaux and Nostlinger, 2007; Darroch and Singh, 2013). This connotes that partner's or husband's approval of contraceptive usage is crucial to the success of family planning policies.

Majority of the respondents claimed they have sexual intercourse infrequently (20.0%); this may not be the real picture of the situation as this is a private question and which majority of people may not want to respond to or give adequate information about but it is believed that if women are not active sexually, they would not have come for Family planning services. The reasons for using family planning methods was shown to be high for prevention of pregnancy(52.3%) followed by spacing (23.6%). This finding is consistent with Varea, Crognier, Bley, 1996 who found that the utilization of modern contraceptives intensifies with the number of surviving children in Morocco. This results stems from the fact that women tend to use more contraceptives when they attain their ideal family size, barring other circumstances. With the ever increasing medical knowledge and more assurance of surviving offspring, there is the tendency for partners to reduce the number of pregnancies to achieve the desired number of surviving children. This may also reduce the pressure on women to start childbearing at an early age, which will give them the opportunity for increased educational attainment and higher future family income.

**5.3Family planning method used by women living with HIV and AIDS and how effective are those methods**

All the respondents in this study are women living with HIV and AIDS assessing care in the two health facilities in Ibadan. More than four-fifth (84%) of the women indicated they had ever used contraceptives of which most had used condom (55%), 20 percent had used oral pills, 17 percent had used injectable contraceptives and other methods. This is an indication that many of the respondents may have had one form of information or the other before being enrolled into the study but what was not known is the level of their knowledge. The knowledge of family planning improves community health by helping both men and women to have children when they are physically, emotionally and financially prepared to take up the child's responsibilities.

In addition, more than two-third (68%) of the women indicated they were currently using modern contraceptives of which 54 percent were using condoms, 12 percent injectable contraceptives, 11 percent oral pills or IUCD while others used other methods. However, many of them made their earlier choice through friend's influence and later changed the method when they visited trained health care providers. Also, making properly counseled choice through health providers has a lot of benefits to good health and family planning.

With regards to the reason for contraception almost more than half (52%) use contraceptives to prevent pregnancy, 24 percent for spacing, 11 percent for limiting, and 10 percent for delaying. According to health experts, one of the eight millennium development goals is improving maternal health through reducing maternal mortality by two-third. This could be achieved by quality reproductive health and family planning service and this is what this study has achieved by providing good information to the public as a result of the data generated.

Furthermore, more than a quarter of the women indicated they had been using contraceptive for more than 6 years, 22 percent for three years, 17 percent for two years and about 11 percent each for 4 or 5 years while 8 percent had been using modern contraceptives for more about a year. On the average, half of the women had been using their current modern contraceptive methods for four years. This corroborates the high level of knowledge of contraceptives among the women as most had been using it for a long time. The good knowledge of the respondents about family planning methods and their benefits including the supports given by their husbands 206 (86.9%) to use family planning were noticed to influence the choice of method. This is similar to the observations made by Onwuzurike and Uzochukwu, 2001 in Enugu. Efforts should be made by the government and non-governmental organizations to involve men in family planning activities in Nigeria. This finding has been consistent with that of other studies within the country (Oyedokun, 2007; Olaitan, 2011).

**5.4The types of contraceptive need of women living with HIV and AIDS**

This study sought to know from the respondents who are HIV positive women the various types of available contraceptives through the administration of a structured questionnaire. Information on the type of modern contraception methods being used in any society is important not only for

marketing purposes, but also for addressing the factors that make some methods unpopular to the users. In this study, however, the women who were using modern contraceptives at the time of the survey were asked to state the methods that they were using in order to assess their contraceptive need. The most commonly preferred modern contraceptive method was condom (54.0%), the second was lnjectables (12.2%) and the third was Oral pills (11.0%).

This study further showed that most of the women (40%) chose their current methods because of safety followed by 24 percent that chose their method because of availability, 15 percent for affordability, 13 percent for effectiveness, and 5 percent for reversibility The respondents also claimed that there are some things they found in their respective choices that are not present in others and which also influence the continuation of such chosen method. Safety of a particular choice (39.7%) was found to be the highest, followed by availability (24.1%) and effectiveness (13.1%). This is similar to the findings of Duru , Ifeadike, Nnebue *et al.*,2011.

An ideal contraceptive method is one which is safe, effective, acceptable, inexpensive, reliable, reversible, simple, long lasting, independent of coitus and requires less medical supervision. A method suitable for one group may not be suitable for another group because of different cultural background, religious beliefs and socio-economic status. Thus there can never be an ideal contraceptive method for women living with HIV and AIDS. This study also showed that some of the factors responsible for continuation of the chosen methods included; availability of the method all the time, easy discontinuation, Husbands' preference and support, Minimal side effects, independent of coitus. These findings are closely related with findings of Shahidul, 2013 in Banglandesh.

### 5.5 The experience of modern contraceptive methods adopted by respondents

Majority of respondents had used different types of contraceptive methods in the past. Some of them are still in use of the same methods while some have changed to some other ones for one reason or the other and this is in concordance with the findings of Kurtoglu and Arpaci, 2011 who reported similar scenario among women in Turkey.Also in this study, condom is the most ever used method and method still in use while implant is the least of the ever used methods but

about half of those using it are still using it, and it is the least changed method. However, oral pills are the most changed method as this method is usually abused by many especially in circumstances where many of the victims are influenced by friends without the input of family planning care giver. However, majority of the respondents were counselled by a Nurse or a Doctor before making their decision on the choice of modern contraceptive. Based on the knowledge and understanding of the information given to the respondents, informed decision was made with respect to the effectiveness of the methods and expected side effects.

Furthermore, some respondents also provided information on reasons for changing contraceptive methods earlier used. Some of the reasons included side effect need for family planning, marriage, scanty menses, over-weight, and need for pregnancy. Nevertheless, all the respondents claimed there were other methods available in the facility when they came for the services as evident by being able to mention some of the methods. They further stated that they had used their chosen methods for minimum of two years and maximum of ten years because majority of the women are using contraceptives to limit births. This is similar to the findings of Nakayiwa *et al.,* 2006 who reported risk behaviour among HIV positive population desire for children and pregnancy in Uganda.

### 5.6 Level of satisfaction of modern contraceptive users

The women living with HIV and AIDS who willingly participated in this study from the two health facilities also expressed the benefits they derived from the use of modern methods despite their plight. More than four-fifth (83%) indicated that they were satisfied with their current contraceptive methods while 8 percent indicated they were not satisfied. In general, satisfaction is a very good key to continuation of a chosen method of contraception. However, of those satisfied with the chosen method, their satisfactions were based on the effectiveness of the chosen method (37%), the methods' ability to prevent pregnancy (18%) or limit childbirth (14%), and allow child spacing (5%). Respondents in this study claimed that the chosen methods had satisfied the reasons for use. This is in concordance with earlier findings from study carried out by Pam (2002) who revealed the link between informed choice, satisfaction on chosen method and continuation with chosen method. Decisions about childbearing and contraceptive use are most likely to meet a person's needs

when they reflect individual desires and values, are based on accurate, relevant information are medically appropriate- that is when they have informed choices. To make informed choices people need to know about Family Planning, to have support for individual choice from social policies and community norms. Informed choice offers many benefits because people use FP longer if they choose methods for themselves. However, some respondents linked their dissatisfaction to few challenges. Among those that are not satisfied with their contraceptive methods, the prominent reason was side effect (20%) followed by heavy menses (10%).

### 5.7 Implication of findings to Reproductive Health Education

Findings of the study have shown that educational level of the respondents played a significant role in decision making on the choice of contraceptive method. This therefore indicates that the second millennium development goal will further strengthen women empowerment. Public enlightenment with focused advocacy programme on girl child education should be intensified. Also the knowledge and experience of respondents' spouses influenced and supported the choice of method. Significant number of the respondents also claimed that their mothers also influenced their choice of method. This shows that mothers with married children that are knowledgeable about family planning and its benefits have a great role to play in improving maternal and child health by educating their wards to practice family planning.

The husbands who double as heads of the family have critical role to play in women's reproductive health. The spouse's involvement has been a huge challenge in reproductive health and family planning but as of recent, a lot of improvement has been observed. This study according to the respondents also provided information that their husbands took part in the decision to use modern contraceptive and choice of method. Involving men in reproductive health decisions and concern about equity which will make both men and women to communicate with each other and make joint decisions about contraceptive use and choice.

The study also revealed that various modern contraceptive methods were available at the time they visited the two health facilities (AMTH and UCH) in Ibadan. The counselling session made a lot of meaningful contributions on all the contraceptive methods chosen by the respondents.

Access to a range of methods makes it easier for people to choose a method they like and to switching when they want is highly commendable. Also, the good method mix and adequate information given on all the methods helped them in making informed choices on contraceptive use. Despite the stigma associated with HIV and AIDS women in the society, the ability of the respondents to make informed choices promotes a trusting partnership between clients and providers which encourages women living with HIV and AIDS to be more responsive to their own health. Therefore, health service providers should be seen as key components in reproductive health service provision should be knowledgeable and skilful. They should also be incorporated among those providing care for women living with HIV and AIDS in our health facilities. They should be trained to have good mastery of all family planning methods, their uses and possible side effects in our HIV/family planning clinics in our health facilities in Nigeria.

## 5.8 Conclusion

The findings in this study from the data generated have shown that more than a quarter of the women living with HIV and AIDS are in polygamous marriages and that most of them have at most secondary school education. Hence, high level of education and previous use of contraceptives by respondents' mothers and the mutual support from their spouses have been found to be factors influencing modern contraceptive choices. It could be inferred that empowering women with good education will helped them make rightful decision especially on health matters when the need arises.Also, their level of awareness about contraceptives was high and hence, the high current contraceptive prevalence among the study population. The prominent challenge the women have with the use of contraceptives is side effect, especially as it applies to their menses, and accessibility. However, there is high level of satisfaction with use of contraceptives as especially because of its effectiveness in delaying and spacing births, and availability. Furthermore, higher level of education of respondents' husbands also played a supportive role in choosing methods of contraception. Therefore, more emphasis on male involvement in family planning programme and reproductive health must be intensified.

## 5.9 Recommendations

This study has revealed various reasons and challenges for the choice of a particular type of contraceptive method by women living with HIV and AIDS in two health facilities in Ibadan. However, despite the benefits of modern contraceptive use by the respondents supported by their husbands and the roles played by level of education of the woman and their spouses, there is still need for more in the area of family planning. Therefore, the following are recommended:

1. Every woman living with HIV and AIDS should be encouraged to visit family planning clinic during her HIV clinic care for counseling on various contraceptive choices, its effectiveness and benefits.
2. Governments and Non-Governmental Organizations (NGOs) should intensify advocacy and public enlightenments for women living with HIV and AIDS on family planning and various types of contraceptive method available as part of their HIV care and management.
3. Finally, advocacy for girl child education on various types and available choice of contraceptives at the grassroots will also play a vital role in preparing female children for the great task ahead for family planning.

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## APPENDIX I

**UNMET NEED OF MODERN CONTRACEPTIVE USE AMONG WOMEN LIVING WITH HIV AND AIDS RECEIVING CARE AT SECONDARY AND TERTIARY HEALTH FACILITIES IN IBADAN**

**QUESTIONNAIRE**

**Dear Respondent,** I am a postgraduate student in the Department of Health Promotion and Education, Population and Reproduction Health Education track, Faculty of Public Health, University of Ibadan. I am carrying out a study on the above topic with the view to improving the quality of Family Planning (FP) services. If you concede to participate in this research, please answer the following question as truly as possible. All the information provided will be treated with utmost confidentiality. In this regard, your name or any identifier is not required. Your participation in this study is voluntary. Failure to participate will not affect the quality of service you are receiving.

Thank you.

Date: Day…… Month……. Year…… ID NO…….

**SECTION 1: SOCIO-DEMOGRAPHIC INFORMATION OF THE RESPONDENTS**

Tick appropriate answers

1. What is your age at last birthday? _____
2. What is your marital Status: 1. Married 2. Single 3. Separated 4. Divorced 5. Widowed

   If single, skip question 3
3. Type of marriage: 1. Monogamy 2. Polygamy
4. Highest level of education: 1. No formal 2. Primary 3. Secondary 4. Tertiary
5. Highest level education of Husband: 1. No formal 2. Primary 3. Secondary 4. Tertiary

6. Occupation: 1. Trading 2. Artisans 3. Private sector/company worker
4. Housewife 5. Civil Servant 6. Others (specify) _____

**7.** Husband occupation: 1. Trading 2. Artisans 3. Unemployed 4. Civil Servant
5 Private sector/ company worker 6. Others (specify) _____

8. What other job/work/business do you do? _____

9. What other job/work/business does your husband do? _____

10. What is your income per month? _____

11. What is your husband's income per month? _____

12. Tribe: 1.Yoruba 2. Hausa 3. Igbo 4. Others (specify) _____

13. Religion**:** 1.Islam 2. Christianity 3. Traditional 4**.** Others (specify) _____

**SECTION 2: UNMET NEED OF MODERN CONTRACEPTIVES USE AMONG WOMEN LIVING WITH HIV AND AIDS**

14. Number of previous pregnancies: _____ (specify actual number)

15. Number of previous deliveries: _____ (specify actual number)

16. Number of children alive: _____ (specify actual number)

17. How many children do you wish to have more? ____ (specify actual number)

18. Whose decision is your desired number of children? 1 .Self 2. Husband
3. Joint 4. In –law 5. Family/Relation 6. Friend

19. How often do you have intercourse weekly? 1. .Daily 2. Once 3. Twice
4. Thrice 5. Four times 6. Five times and over 7. Infrequent

20. What was the outcome of last pregnancy: 1. Live birth 2. Induced abortion 3. Other specify

21. Do you experience any complications during last pregnancy: 1. Yes 2No
If yes specify complications _____

22. Have you ever used any modern contraceptive? 1. Yes 2. No

23. What type of contraceptive(s) have you ever used? Mention _____

24. Who influenced your decision of using modern contraceptive methods?
1. Self 2. Husband 3. Joint 4.In –law 5. Family/Relation 6. Friend
7. Health care provider

25. Who pays for the family planning services? 1. Self 2. Husband 3. Joint 4.In – law
5. Family / relation 6.Others (specify)……

**The following are factors influencing the choice of modern contraceptive**

**Tick the most appropriate to you**

| S/N | Factors | Yes | No |
|---|---|---|---|
| 26. | My husband supports the use of modern contraceptives | | |
| 27. | I have friends who use modern contraceptive | | |
| 28. | Tried a traditional method and pregnancy resulted | | |
| 29. | Use of modern contraceptives worked for my mother/mother-in-law | | |
| 30. | I am knowledgeable about the benefits of modern contraceptive | | |

**SECTION 3: TYPES AND CHALLENGES OBSERVED FOR THE CONTINUATION OF CHOSEN METHOD OF CONTRACEPTIVE USE?**

31. Are you using any modern contraceptives? 1. Yes 2. No **(if no skip to No 45)**

32. What modern contraceptive are you on currently?1. Condom 2. Injectable 3. Pills
    4. IUCD 5.Implants 6.Abstinence 7. None 8. Others Specify_____

33. Why are you using Contraceptives? 1. Prevention of Pregnancy 2. Limiting Births
    3. Spacing Children 4.Delaying Pregnancy

34. How long have you been using this method? .....

35. What do you like about your chosen method? 1. Availability 2. Affordability
    3. Safety 4. Reversibility 5. Effectiveness 6. No weight gain 7. Others specify_____

36. What do you find in this method and it is not present in other methods?
    1. Availability 2. Cost effective/cheap 3. Fewer side effects 4. Privacy
    5. Independence of coitus 6. Infrequent of appointment 7. Others (specify) _____

**The following factors influence continuation of contraceptive use.**

**Please tick the most appropriate that influenced you.**

| S/N | Factors | Yes | No |
|---|---|---|---|
| 37. | Cost of the chosen method is more affordable than others | | |
| 38. | My husband prefers/supports this method | | |
| 39. | My friend/mother/in-law influenced the sustenance of method I am using | | |
| 40. | Minimal side effects | | |
| 41. | Available all the time | | |
| 42. | It is easy to discontinue | | |
| 43. | I do not have to see a provider before using my method | | |
| 44. | The method does not disturb sexual intercourse | | |

**SECTION 4: EXPERIENCE ON USE OF CONTRACEPTIVE METHODS AND CHALLENGES**

45. **What are the Family Planning methods you have ever used? Tick as appropriate.**

| FP METHODS | NEVER USE | EVER USE | STILL IN USE | HAVE CHANGED METHOD | | REASON FOR CHANGE |
|---|---|---|---|---|---|---|
| | | | | YES | NO | |
| 1. Abstinence | | | | | | |
| 2. Withdrawal | | | | | | |
| 3. Condom | | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| 4. Pills | | | | | | |
| 5.Intrauterine device | | | | | | |
| 6.Injectable | | | | | | |
| 7. Implant | | | | | | |
| 8. Others(Specify) | | | | | | |
| 9. None | | | | | | |

46. Were you counseled before making decision on the choice of modern contraceptive?

1, Yes 2. No

47. Who counseled you?

1. Nurse 2. Doctor

48. Why did you choose the method in use? 1. It is cheap 2.It is easily available

3. It is highly effective 4. Has few side effects 5. My partner likes it

6. It is long acting 7. It offers privacy

49. Was your choice of method the only method available when you came for the service?

1. Yes 2. No

50. If No, which other methods were available? Mention them _____

51. How long have you been using current method? _____

52. Have you ever encountered any problem since you started using this method?

1. Yes 2. No (**If no go to question 55**)

53. If yes, what are these problems? (Tick below options as appropriate)

1. Failure 2. Infection 3 .No menses 4. Scanty menses 5. Heavy menses

6. inconveniences 7.Forgetfulness 8.Weight gain 9.Weight loss 10.Partner does not like it

11. Headache 12 .Others (Specify) _____

54. How do you intend to overcome any problem you are having with your current method? 1. Change the method 2. Seek for solution from the providers

3. Opt out from use of modern contraceptive methods 4. Adopt traditional methods of contraception 5.Abstinence 6.Don't know

**SECTION 5: LEVEL OF SATISFACTION OF THE METHOD USED AND ITS EFFECTIVENESS?**

55. Has the current method satisfied your reason for contraceptive use? 1. Yes 2. No

56. If Yes, how? _____

57. If No, why? _____

58. Mention benefits you derive from using modern contraceptive method?

_____

**Please indicate if you are Satisfied, Not satisfied and Undecided about the chosen modern method of contraception.**

**Tick the most appropriate.**

| **S/N** | | **Satisfied** | **Not Satisfied** | **Undecided** |
|---|---|---|---|---|
| 59. | Information about the Contraceptive method | | | |
| 60. | Waiting time at the clinic | | | |
| 61. | Distance of the clinic to my house | | | |
| 62. | Use of family planning has positively affected every part of my life | | | |
| 63. | Side effects of the method | | | |
| 64. | Cost of obtaining the card at the clinic | | | |
| 65. | Attitude of health workers | | | |
| 66. | Its availability | | | |

## APPENDIX II

### IWE IBEERE

**OHUN AINI TO ROMO LILO FETOSOMOBIBI LAARIN AWON OBINRIN TI O NGBE PELU KOKORO TI O NFA ARUN EEDI TI NWON NGBA ITOJU NI ILE IWOSAN NLA ATI EYI TO TELEE NI ILU IBADAN LORILE EDE NAIJIRIA**

**Olukopa owon,** mo jeakeeko agba ni ile-iwe giga fafiti ti Ibadan. Mo n se agbeyewo lori akole to wa loke iwe yi lati mu ki ifetosomobibi loorin sii. Ti o ba rorun fun yin lati kopa ninu agbeyewo yi, e jowo dahun awon ibeere wonyi tokantokan. Gbogbo esi ti eba fun wa ki yio han si elomiran. Nipase eyi a ko ni beere oruko yin tabi awon nkan miran ti a fi ledanimo. Kikopa ninu agbeyewo yi kopon dandan ati wipe aikopa yin ko le je ki e padanu tabi mu ki idinku wa ninu itoju lori fetosomobibi.

E se.

Igba:Ojo…… Osu……. Odun …… Nomba…….

**Ipele akoko: Awon ibeere Pataki nipa olukopa**

Fa ila si idi idahun to dara julo

1. Ojo ori: [ ]

2. Ipo Igbeyawo: 1. Mo ti se igbeyawo [ ] 2. Mo da wa [ ] 3. Mo ngbe loto [ ]
4. Ati fi ara wa sile [ ] 5. O ti ku [ ] Ti o ba da wa, ma se dahun ibeere keta

3. Iru idile wo: 1.Oniyawo kan [ ] 2. Oniyawo pupo [ ]

4. Ipele eko: 1. Eko ile [ ] 2. Alakobere [ ] 3. Iwe girama keta [ ] 4. Iwe girama kefa [ ] 5. Iwe awon oluko/Iwe giga poly [ ] 6. Iwe giga [ ] 7. Iwe giga agba [ ]

8. Awon miran (so ni koko)…….

5. Ipele eko fun Oko: 1. Eko ile [ ] 2. Alakobere [ ] 3. Iwe girama keta [ ]

4. Iwe girama kefa [ ] 5. Iwe awon oluko/Iwe giga poly [ ] 6. Iwe giga [ ]

7. Iwe giga agba [ ] 8. Awon miran (so ni koko)…….

6. Iru ise wole nse? 1. Oja tita [ ] 2.Owo sise [ ] 3. Ise adani/Ile ise [ ]

4. Iyawo Ile [ ] 5. Osise ijoba [ ] 6. Awon miran (so ni koko)…….

**7.** Kini ise oko yin? 1. Oja tita[ ] 2. Ise owo [ ] 3. Ko ni se [ ] 4. Osise ijoba [ ]

5. Ise adani/Ise labe eniyan [ ] 6. Awon miran (so ni koko)……

8. Awon ise tabi owo miran wo le nse?Darukowon? .....

9. Awon ise tabi owo miran wo ni oko yin nse?Daruko won? ……

10. Elo lo nwole fun yin lodun? ……

11. Elo lo nwole fun oko yin lodun? ……

12. Eya: 1. Yoruba [ ] 2. Hausa [ ] 3. Igbo [ ] 4. Awon miran (so ni koko)

……

13. Esin**:** 1. Imale [ ] 2. Igbagbo [ ] 3. Ibile [ ] **4.** Awon miran (so ni koko)……..

**IPELE KEJI: OHUN AINI TO MU NI YAN IRU FETOSOMOBIBI TODE ONI LARIN AWON OBINRIN TI NWON NGBE PELU KOKORO TI O NFA ARU EEDI**

14. Oyun di melo? _____( so ni koko)

15. Ikunle melo? _____(so ni koko)

16. Omo melo? _____( so ni koko)

17. Omo melo le fe bisi? _____( so ni koko)

18. Talo pinnu iye omo ti e maa bi? 1. Emi [ ] 2. Oko [ ] 3. awa mejeeji [ ]

4. Ana [ ] 5. Ebi [ ] 6. Ore [ ].

19. Abajade oyun to gbeyin: 1. Omo [ ] 2. Oyun sise [ ] 3. Abiku [ ]

4. Oyun ti ko si ninu ile omo [ ] 5. Oyun bibaje [ ] 6. Oyun ti ko dara [ ].

20. Wahala ninu oyun to gbeyin: 1. Beeni[ ] 2. Beeko [ ]

Bi beeni, so wahala na…….

21. Talo ru ipinu yin soke lori lilo fetosi igbalode? 1. Emi [ ] 2. Oko [ ]

3. Awa mejeeji [ ] 4. Ana [ ] 5. Ebi [ ] 6. Ore [ ] Eleto [ ]

22. Talo nna owo lori fetosomobibi? 1. Emi [ ] 2. Oko [ ] 3.awa mejeeji [ ]

4. Ana [ ] 5. Ebi [ ] 6. Ore [ ] Elomiran [ ]

23. Igba melo ni e nsunmo oko yin lose? 1. Ojoojumo [ ] 2. Eekan [ ] 3. Eemeji [ ]

4. Eemeta [ ] 5. Eemerin [] 6. Eemarun soke [ ] 7. Leekokan [ ].

24. Kini idi ti e fin lo fetosi? 1. Idena oyun nini: a. Fifopinsi [ ] b. Fifi aaye sile [ ]

d. Sisun oyun siwaju [ ] 2. Airomobi[ ] 3. Awon miran (so ni koko)……..……

Fa ila si eyi to dara ju

| S/N | Oro lori awon ohun to nse atokun yiyan fetosomombibi igabalode | Beeni | Beeko |
|---|---|---|---|
| 25 | Oko mi fowo si fetosomobibi igbalode | | |
| 26 | Mo ni awon ore to nlo fetosomobibi | | |
| 27 | Mo ti lo ti ibile o yiwo | | |
| 28 | Fetosomobibi igbalode sise fun iya oko mi | | |
| 29 | Mo ni oye lori anfaani to wa ninu lilo fetosomobibi igbalode | | |

**IPELE KETA: ORISIRISI NKAN ATI AWON OHUN TI O NSOKUNFA TITESIWAJU LORI FETOSOMOBIBI TI A YAN FUN ARA ENI LARIN AWON OBINRIN TI O NGBE PELU KOKORO TIO NFA ARUN EEDI?**

30. Iru fetosi wo ni a nlo lowolowo? **……..**

31. Igba wo ni a ti nlo? 1. Osu kan si mokonla [ ] 2. Odun kan si marun [ ]

3. Odun mefa si mewa [ ] 4. Odun mokanla si meedogun [ ]

5. Odun merindinlogun soke [ ].

32. Kini e feran nipa fetosomobibi ti e yan? 1. O wa larowoto [ ] 2. Ko ga jara [ ]

3. idaabobo [ ] 4. O see yipada [ ] 5. Ise to peye [ ] 6. Ko mu ni sanra [ ]

7. Awon miran (so ni koko) ……..

33. Kini ohun ti e ri ninu fetosi ti e nlo ti ko si ninu awon to ku?

1. O wa larowoto [ ] 2. Ko won [ ] 2.Iyonu re ko po [ ] 3. O bo ni lasiri [ ]

4. Ko di ibalopo lowo [ ] 5. Wiwa fun ayewo kii se gbogbo igba [ ]

awon miran (so ni koko)

Fai la si eyi to baamu ju:

| S/N | Oro lori awon ohun to nse atokun titesiwaju lori fetosomobibi ti a yan fun ara eni. | Beeni | Beeko |
|---|---|---|---|
| 34. | Owo feto si ti mo nlo kere si tawon to ku | | |
| 35 | Oko mi fowo si feto lilo | | |
| 36 | Ore mi/Ana mi se atokun diduro lori iru fetosi ti mo nlo | | |
| 37 | Fetosi ti mo nlo ko ni iyonu pupo | | |
| 38 | Fetosi ti mo nlo wa larowoto ni gbogbo igba | | |
| 39 | O ro run lati da fetosi ti mo nlo duro | | |
| 40 | Mi ko ni lati ri onifetosi ki nto lo feto si ti mo nlo | | |
| 41 | Feto si ti mo nlo ko di ibalopo | | |

**SECTION 4: IRIRI LORI FETOSOMOBI ODE ONI TI A TI LO ATI EYI TI A NLO LOWOLOWOLARIN AWON OBINRIN TI O NGBE PELU KOKORO TIO NFA ARUN EEDI?**

42. Iru awon fetosi wo lo ti ri? Fa ila sibi ti o ye.

| FETOSOMOBIBI | LOORI | NLO LOWOLOWO | MO TI PAARO FETOSI | IDI TI MO FI PAARO FETOSI |
|---|---|---|---|---|
| Imaraduro | | | | |
| Fifayol | | | | |
| Onikoro | | | | |
| Onifififisi | | | | |
| Alabere | | | | |
| Onigbre | | | | |
| Awon miran | | | | |
| Rara | | | | |

43.Nje e gba idanileko ki e to se ipinnu lori fetosi ti e yan? Beeni [ ] 2. Beeko[ ]

44. Talo fun yin ni idanileko?

1. Noosi [ ] 2. Dokita [ ] 3. Akeko Noosi [ ] 4. Akeko isegun [ ]

45. Kini idi ti e fi mu fetosi ti e nlo 1. Ko won[ ] 2. O wa larowoto [ ]

3. O nsise daradara [ ] 4. Ko ni yonu pupo [ ] 5. Oko mi feran e [ ]

6. O nsise fun ojo pipe [ ] 7.O Fara pamo [ ].

46.Se fetosi ti e yan nikan lo wa larowoto nigbati e wa fun ifetosomobibi?

1. Beeni [ ] 2. Beeko [ ].

47. Bi beeko, iru awon feto si miran wo lo wa larowoto? Daruko won. ……..

48. igba wo ni e ti nlo fetosi ti e nlo lowolowo? ……

49. Nje e ti se alabapade awon isoro Kankan lati igba ti e yin lo fetosi yi?

1. Beeni [ ] 2. Beeko [ ] (Ti o ba je beeni, e lo si ibeere arun din logota)

50.Ti o ba je beeni, awon isoro wo? (Fa igi si esi ti o ye)

1. Ijakule [ ] 2. Kiko kokoro [ ] 3. Ko si nkan osu [ ] 4. Nkan osu teretere [ ]

5. Nkan osu pupo) [ ] 6. Inira [ ] 7. Igbagbe [ ] 8. Sisanra si [ ]

(9) Siso iwon nu [ ] 10. Oko mi ko feran re [ ] 11. Ori fifo[ ]

(12) awon miran (so ni koko) …….

51. Bawo le se ro pe e le bori awon isoro to le dojuko yin lori fetosi ti e nlo

1. Paaro fetosi [ ] 2. Beere ona abayo lowo eleto [ ] 3. Kuro ninu lilo etosomobibi igbalode [ ] 4. Gba fetosi ibile [ ] 5. Imaraduro [ ] 6. Nko mo [ ]

**IPELE KARUN: KINI IWON ITELORUN SERI NIPA LILO FETOSOMOBIBI IGBALODE ATI IWULO RE LARIN AWON OBINRIN TI O NGBE PELU KOKORO TIO NFA ARUN EEDI?**

52. Nje fetosi ti e nlo lowolowo yiteyin lorun lori idi ti e fi nlo?

1.Itelorun nla [ ] 2.Itelorun iwonba [ ] 3.ko si ilelorun [ ]

53 (a) Bi beeni, bawo? ……..

54. Bi beeko, ki ni idi? ……

.55.So anfaani kan ti o nje nipa lilofetosomobibi? …….

| S/N | Oro lori awon ohun to nmu itelorun wa lori fetosomobibi igbalode ti a yan. | Itelorun nla | Itelorun iwonba | Ko si itelorun |
|---|---|---|---|---|

| | | | | |
|---|---|---|---|---|
| 56. | Mo ni itelorun lori fetosi ti mo yan nitori mo gba ekurere alaye ki nto yan | | | |
| 57. | Ko si idaniduro ki a to danilohun | | | |
| 58. | Ile fetosi sunmo ile mi nitorinaa ko si isoro ona jijin | | | |
| 59. | Lilo fetosi je ipalara fun mi ni gbogbo ona | | | |
| 60. | Irorun wa lati gba iranlowo lori isoro tabi wahala to ba jeyo | | | |
| 61. | Bi ile iwosan se jina si ibi ti mo ngbe | | | |
| 62. | Bi lilo fetosomobibi se wulo fun igbesi aye mi | | | |
| 63. | Awon alebu ti o wa ninu fetosomobibi | | | |
| 64. | Elo ni wonngba kaadi ni ile iwosan | | | |
| 65. | Ihuwa si awon osise eleto ilera | | | |
| 66. | Bo se wa laro wo to | | | |

## APPENDIX III

INFORM CONSENT FORM

IRB Research approval number: UI/EC/15/0272

This approval will elapse on: 26/11 / 2016

Title of the research:

Unmet need of contraceptive use among women living with HIV and AIDS receiving care at secondary and tertiary health facilities in Ibadan Nigeria

Name of researcher:

This study is going to be conducted by ADENUGA ADESOLA FAIDAT of Faculty of Public Health, College of Medicine University of Ibadan.

Purpose of research:

The purpose of this research is to assess the unmet need of contraceptive use among women living with HIV and AIDS receiving care at secondary and tertiary health facilities in Ibadan Nigeria

Procedure of the research:

This study is a descriptive cross-sectional survey, which will utilize an interviewer administered structured questionnaire to women living with HIV and AIDS receiving care at secondary and tertiary health facilities in Ibadan Nigeria

The study entails to use as part of its inclusion criteria; every consenting woman. An estimated number of 350 consenting women living with HIV and AIDS receiving care at the family planning clinic, University College Hospital (UCH) and Adeoyo Maternity Teaching Hospital (AMTH), Ibadan will be enrolled in this study.

Expected duration of research and of participants' involvement:

You should not be interviewed for more than 15 minutes.

Risk:

There is no risk or harm involved in participating in this research. It is voluntarily.

Cost to the participants:

Your participation in this research will not cost you anything.

Benefit (s):

Participants will benefit in the following ways:

•Incentives (detergents) will be given to participants after the interview in appreciation of their time and energy.

• The research will provide information that may be useful in improving contraceptive services.

Confidentiality:

All information collected in this study will be given code numbers and no name will be recorded. This cannot be linked to you in anyway and your name or any identifier will not be used in any publication or reports from this study.

Voluntariness:

Your participation in this research is entirely voluntary.

Alternative to participation:

If you choose not to participate in this research, this will not affect you or service you require in any way.

Due inducement(s):

You will not be compensated for participating in this research and you will not pay to participate in the research.

Statement of person obtaining informed consent:

I have fully explained this research to_____

And have given sufficient information, including about risks and benefits, to make an informed decision.

Date _____Signature_____

Name_____

Statement of person giving consent:

I have read the description of the research or have had it translated into language I understand. I understand that my participation is voluntary. I know enough about the purpose, methods, risks and benefits of the research study to judge that I want to take part in it. I understand that I may freely stop being part of this study at any time. I have received a copy of this consent form and additional part information sheet to keep for myself.

Date_____Signature_____

Name_____

Witness Signature (if applicable) _____

Witness Name (if applicable) _____

Detailed contact information:

This research has been approved by the Ethics Committee of the University of Ibadan and the chairman of this committee can be contacted at Biode Building, Room T10, 2nd floor, Institute for Advanced Medical Research and Training, College of Medicine, University of Ibadan, telephone: 08032397993. E-mail: uiuchirc@yahoo.com. In addition, if you have any question about your participation in this research, you can contact the principal investigator, Adenuga AdesolaFaidat of the Department of Health Promotion and Education, faculty of public health, College of Medicine University of Ibadan. Phone: 08103092169. E-mail: dasfadolad@gmail.com

## APPENDIX IV

### Iwe Gbigba Ase

Nomba ifontelu alaga ajo: UI/EC/15/0272

Ifontelu yi yio pari ni :26 /11/ 2016

**Akole Iwadi:**

Awon ohun to nse atokun lilo fetosomobibi tode oni laarin awon obirin ti o nwa si ile ifetosomobibi to wa ni ile iwosan oritamefa, ibadan

**Oruko Olu gbeyewo:** Oruko eni ti yo se iwadi yi ni ADENUGA ADESOLA FAIDAT, akeko ni ile eko giga yunifasiti ti Ile Ibadan (Department of HPE, Faculty of Public Health, College of Medicine).

**Idi agbeyewo:** Iwadi yi wa lati wo ohun aini to romo lilo fetosomobibi laarin awon obinrin ti o ngbe pelu kokoro ti o nfa arun eedi ti nwon ngba itoju ni ile iwosan nla ati eyi to telee ni ilu Ibadanlorile ede Naijiria.

**Eto Iwadi:** Iwadi yi je eyi ti yio awon onibeere yio lo iwe ibeere (Questionnaire) lati lati beere ibeere lowo awon obinrin ti o wa lori irufe fetosomobibi igbalodeti won si nwa si ile fetosomobibi ni ile iwosan nla oritamefa, ni ilu Ibadan

Lowo awon obirin ti o nlo fetosomobibi ti o si ti gba lati kopa nikan ni oluwadi yo bere ibere. Awon ti yo kopa lapapo je eniyan odunrun le metadinlogoji ti o nwa si ile ifetosomobibi ti o wa ni ile iwosan nla oritamefa, Ibadan.

**Akoko ti iwadi yi le gba olukopa ati ohun ti o le na a**

Iwadi yi ko ni gba akopa kookan ju iseju mewa lo.

**Ipanilara:**

Ko si ipanilara, ewu abi ijamba kankan fun olukopa ninu iwadi yii ati wipe kikopa je ati inu wa.

**Owo ti yio naa akopa**

Ko si oro owo nina lati je olukopa ninu iwadi yii, lati ibere titi di ipari iwadi.

**Anfaani**

Olukopa yi o je anfaani ti a la kale yii:

- Nkan amoriya bi ose abufo, ni olukopa yi o gba leyin iforowanilenuwo lati fi dupe fun akoko ti won fi sile.
- Iwadi yi yoo pese amoran pataki ti yio mu ki idagbasoke ati itesiwaji wa lori ifetosomobibi

**Pipa asiri mo**

A ko ni gba oruko olukopa kankan sile ati wipe ko ni seesee ki a mo olukopa lati ara iwadi ti a se. Bee si ni a ko ni lo oruko olukopa ninu atejade ti a ba se sita lati ara iwadi ti a se.

**Kikopa la ti Okan wa**

Kikopa ninu iwadi yi je a ti okan wa.

**<u>Ifipa mu ni lati ko pa ninu ayewo yi:</u>**

Kikopa ninu ise iwadi yi kise dandan. Eni ti o ba nife lati kopa nikan lo le kopa ninu ise yi. Igba ku gba ti olukopa ba fe ni o le dekun ati kopa ninu iwadi yi.

**<u>Gbigba eku ise</u>:**

A ki yio san owo fun enikeni ti o ba kopa ninu ise iwadi yi. A ko se ileri wipe awa yio fun enikeni ni ebun kankan fun kikopa ninu ise yi.

**<u>Oro oluwadi lati gba ase lowo olukopa ki o to maa ba ise lo:</u>**

Mo ti ka gbogbo ohun ti o romo ise yi ati wipe mo ti se alaye kikun lori ewu, ijamba, tabi anfani tabi ire ti o wa ninu kikopa ninu iwadi yi fun_____ _____ lati le pinu pelu imo to peye lati kopa ninu ise yi.

Ojo _____ Iteka/ifowo si Iwe _____

Oruko mi: _____

**Oro olukopa lori fifun oluwadi lase lati kopa ninu iwadi yi:**

Mo ti ka nipa ise iwadi yi/nwon si ti se alaye kikun fun mi nipa ise iwadi yi ni ede ti o ye mi yekeyeke ati ni ona ti o te mi lorun. Imo mi lori idi ti n'won fe fi se ise yi, ewu ti o le wa nipa kikopa ninu ise yi, ona ti won fe gba lati se ise yi ati wipe kikopa mi ninu iwadi yi kii se tipatipa tabi dandan sugbon lati okan mi wa. Nwon fi ye mi, emi na si ti gba wipe igbakugba ti mo ba fe

ni mo le dawo ati kopa ninu ise yi duro. Mo si ti gba eda iwe yi ti mo fi owo si lati kopa ninu ise yi.

Ojo:_____ Iteka/ifowosiIwe:_____

Orukomi:_____

Ifowo si Iwe/Iteka eleri:_____

Oruko eleri: _____

**Adiresi lekunrere:**

Iwadi yi ni ajo ti o n ri si eto iwadi ti ile eko giga Ibadan ti fi onte lu, e le kan si alaga ajo na ni Ile Biode, Yara T10, Aaja keji, Institute for Advanced Medical Research and Training, College of Medicine, University of Ibadan, Ero ibanisoro won ni: **08032397993,** adiresi lori ero ayelujara won ni: **uiuchirc@yahoo.com.**Ni afikun, ti a ba ni ibeere nipa kikopa ninu iwadi yi, e le kan si Oniwadi agba, Adenuga adesola faidat ti Department of Health Promotion and Education(HPE) Faculty of Public Health, College of Medicine University of Ibadan. Ero ibanisoro:**08103092169**adiresi lori ero ayelujara: **dasfadolad@gmail.com.**

OLUKOPA NI LATI NI EDA IWE YI LOWO.

**APPENDIX V**

**ETHICAL APPROVAL**

**INSTITUTE FOR ADVANCED MEDICAL RESEARCH AND TRAINING (IAMRAT)**
**College of Medicine, University of Ibadan, Ibadan, Nigeria.**

*Director:* **Prof. Catherine O. Falade,** *MBBS (Ib), M.Sc. FMCP, FWACP*
Tel: 0803 326 4593, 0802 360 9151
e-mail: cfalade@comui.edu.ng lillyfunke@yahoo.com

UI/UCH EC Registration Number: **NHREC/05/01/2008a**

**NOTICE OF EXPEDITED REVIEW AND APPROVAL**

**Re: Unmet Need of Contraceptive use among women living with HIV and AIDS receiving care at Secondary and Tertiary Health Facilities in Ibadan, Nigeria**

UI/UCH Ethics Committee assigned number: UI/EC/15/0272

Name of Principal Investigator: **Faidat Adesola Adenuga**
Address of Principal Investigator: Department of Health Promotion & Education, College of Medicine, University of Ibadan, Ibadan

Date of receipt of valid application: 26/08/2015

Date of meeting when final determination on ethical approval was made: **N/A**

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 expedited approval by the UI/UCH Ethics Committee.*

This approval dates from **27/11/2015 to 26/11/2016.** 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.*

UI/UCH EC APPROVED COLLEGE OF MEDICINE U.I.

**Professor Catherine O. Falade**
Director, IAMRAT
Chairperson, UI/UCH Ethics Committee
E-mail: uiuchec@gmail.com