

**FACTORS INFLUENCING USE OF FAMILY PLANNING METHODS AMONG  
HIV POSITIVE FEMALE CLIENTS IN SOUTH WESTERN UGANDA: A CASE OF  
KITAGATA HOSPITAL**

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## DECLARATION

I, Tumuhairwe Juliet, hereby declare that this work has never been presented to any university or Institution for any award

Signed

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## APPROVAL

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## **DEDICATION**

This dissertation is dedicated to HIV positive females who live in communities where access to effective family planning services remains a reproductive health problem.

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## ABSTRACT

This dissertation presents findings of a cross-sectional study carried out among (191) HIV positive females attending HIV care clinic in Kitagata hospital Sheema district, Uganda. The aim of the study was to assess factors influencing utilization of Family Planning services among HIV positive female clients of Kitagata hospital.

Results show that over a quarter of the respondents were aged 40-44 years. Three quarters of respondents were married while only 37% had at least primary school level. The majority of the respondents were Protestants. Two thirds reported that the main source of FP information was health facility and community sensitization, three fifth received FP counseling from the HIV clinic and counseling was with charts only. 81% were currently using FP methods where by single users were two thirds. More than of half of the clients received FP services from the HIV clinic.

Results of logistic regression show that Catholics were less likely while Pentecostals were more likely to be using FP methods compared to Protestants ( $p < 0.005$ ). Cohabiting and widowed respondents were more likely to use FP compared to the married clients. Respondents who had completed secondary and higher education had higher odds of using FP compared to women with no education ( $p < 0.005$ ). Respondents who lived closer to the facility tended to use FP methods more than their colleagues who had to walk for an hour or more. Respondents who did not discuss FP with their spouse were less likely to use FP compared to their counterparts. HIV positive females who had information about FP were less likely to use FP compared to their counterparts. HIV positive females who were taking septrin were more likely to use FP compared to those taking ARVs

It is recommended that the church and other actors should encourage the Catholics to start using natural Family Planning methods, consider involving FP education sessions in primary education co curriculum, equip health center II with FP services. MOH should develop programs targeting married couples, develop guidelines for male involvement and circulate them to facilities and develop a policy on VHTs distributing the FP methods to their communities. Community sensitization among female clients who have completed primary education and those below primary level should be emphasized. In addition VHTs should encourage men to give support to their women.

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### **LIST OF ACRONYMS AND ABBREVIATIONS**

ACQUIRE	Access, Quality, and Use in Reproductive Health
AIDS	Acquired Immune Deficiency Syndrome
ART	Anti-retroviral Therapy

ARV	Anti-retroviral Drugs
AZT	Zidovudine
BTL	Bilateral Tubal Ligation
CCP	Center for Communication Programs
CD4	T-lymphocyte bearing CD4 receptor
COCS	Combined Oral Contraceptives
CPD	Continuous Professional Development
DHO	District Health Officer
DHT	District Health Team
FP	Family Planning
HAART	Highly Active Anti-retroviral Therapy
HIV	Human Immunodeficiency Virus
HSDs	Health Sub-districts
IEC	Information, Education and Communication
Inc	Incorporation
IUD	Intrauterine Device
KIIs	Key informants
MDGs	Millennium Development Goals
MoH	Ministry of Health
ORC	Opinion Research Corporation
PACE	Program for accessible health Communication and Education
PEP	Post Exposure Prophylaxis
PLWHA	People living with HIV/AIDS
PMTCT	Prevention of Mother to Child Transmission
PO	Progestin Only

RHR	Reproductive Health and Research
RHU	Reproductive Health Uganda
STIs	Sexually Transmitted Infections
TASO	The AIDS Support Organization
UAC	Uganda AIDS Commission
UBOS	Uganda Bureau of Statistics
UDHS	Uganda Demographic Health Survey
UHMG	Uganda Health Marketing Group
UNFPA	United Nations Population Fund
USAID	United States Agency for International Development
VCT	Voluntary Counseling and Testing
WHO	World Health Organization

### **OPERATIONAL DEFINITIONS**

Active clients	HIV positive clients on HAART who have come to the HIV clinic At least once within the previous three months of follow up (excluding lost to follow up and deaths).
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Family Planning	Is a voluntary and informed decision made by individuals and couples on when to have children, and the interval between the children by using contraceptives (MoH 2005a).
HAART-Experienced:	HIV positive clients who have been on HAART (includes those who stopped or missed for various reasons but excludes pregnant women on prophylaxis and clients on PEP)
HAART-Naïve:	Clients who have never been on HAART before (includes HIV positive pregnant women on prophylaxis with AZT and those on PEP).
Seroconcordant:	Refers to couples where both partners are HIV sero-positive (Bishop and Foreit 2010).
Serodiscordant:	Refers to couples where one partner is HIV negative and the other is positive (MoH 2005b, Bishop and Foreit 2010).
Triage:	The process of sorting people based on their need for immediate medical treatment as compared to their chance of benefiting from such care.

# CHAPTER ONE: INTRODUCTION

## 1.1 Background to the study

Globally, there are an estimated 34 million people living with HIV/AIDS. Africa and sub-Saharan Africa in particular has peculiar needs for both HIV and Family planning (FP) services. The majority (68%) of people living with HIV/AIDS (PLWHA) are in sub-Saharan Africa. The prevalence is higher among individuals of reproductive age group with young women being most vulnerable. There are high poverty levels, high fertility rates and inadequate access to contraception services (UNAIDS/WHO, 2011).

In sub-Saharan Africa, the epicenter of the HIV epidemic, effective HIV prevention and care strategies for PLWHA remain a challenge. Some contraceptive methods originally designed for fertility regulation such as condoms are sometimes promoted primarily for protection against STI/HIV. Often PLWHA get unplanned pregnancies and experience negative effects of pregnancy on their health, which leads to poor obstetric outcomes and rapid progression of HIV (WHO 2006).

In addition, it contributes to new pediatric HIV infections through vertical transmission. There is thus a vicious cycle of unregulated fertility, re-infection of HIV and suffering among PLWHA related to effects of HIV. Effective utilization of FP services by PLWHA can help address such emerging public reproductive health concerns and overall improve maternal and child health outcomes in general (WHO 2006).

In the developing world, the HIV epidemic is characterized by over 80% of the cases transmitted sexually and an additional 10% transmitted from mothers to children. In such an HIV environment, PLWHAs in the reproductive age group are faced with more complex fertility-related decisions. Many people desire but at the same time do not use any FP methods and among other factors, cost and limited access to quality FP services are contributory. Social norms such as early childbearing, preference for large family sizes that is encouraged by the strong desire to sustain lineage and the belief that many children provide old-age security remain barriers to contraceptive use (WHO 2006). When health care programs provide services in ways that meet multiple client needs, satisfaction with the service delivery increases and the scarce financial and human resources are better utilized (FHI 2008).

Family planning (FP) is a voluntary and informed decision by an individual or couple on the number of children to have and when to have them, by use of modern or natural FP methods (MOH, 2005). It can also be simply referred to as having children by choice and not by chance. Modern FP methods commonly available include oral contraceptives, Depo-Provera injections, Implants, condoms, diaphragms, Intra Uterine Devices (IUD) and voluntary sterilization (vasectomy and tubal ligation). The traditional methods consist of Lactational Amenorrhea Method (LAM) and Fertility Awareness Based methods (FAB). Current guidance from WHO indicates that virtually all these methods are safe for nearly every person with HIV (WHO, 2008).

FP services have been integrated into HIV care and treatment facilities just as the reverse is true. What is noticeable is the fact that there has not been a lot of information published focused to FP use among HIV positive clients in the region.

Service Provision Assessment Survey (MOH 2008) indicated that there is low FP service use in South Western Uganda. Results indicated the average number of FP consultations in 12 months provided in the facility using Health Management Information Monthly records at 20 clients.

This study therefore is intended to explore FP utilization and its related factors among HIV positive clients in the Kitagata hospital in the district of Sheema.

## **1.2 Problem statement**

Some factors influencing FP use among the general population are known but what is lacking is linking these and other factors to HIV care. Factors that have been highlighted during the UDHS 2011 among the general population include socio-demographic characteristics like age, educational background, place of residence (rural or urban), desire for children and partner approval. HIV positive clients are a special population that has a regular follow up schedule, unique challenges and yet with access to family planning services. On top of the factors faced by the general population, they could be having other additional issues that need to be addressed to. It is therefore vital to determine the possible factors influencing the use of FP services among HIV positive clients.

Lack of documentation on factors associated with unknown level of uptake of FP among HIV positive clients hinders the possibility of working towards solutions. This can be backed up by effects that can arise due to low FP use among HIV positive clients, this study is therefore designed first to establish what proportion of those using FP services are HIV positive Female clients and secondly to ascertain

factors influencing use of FP by clients. FP utilization in South .western Uganda stands at 30% among female users (UBOS and ICF International Inc.2011). There is no information documented on the proportion of HIV positive clients using FP for contraceptive purpose and yet the services are being provided. With low levels of FP use in the general public, there is a possibility of it being lower among HIV positive clients as well. If FP use among HIV positive clients remains low, some negative effects can be realized such as unwanted pregnancies which in turn lead to poor health conditions among the HIV positive women who already have a weak immunity. Furthermore the new born child may contract HIV infection which may lead to death. Increased family expenses incurred for treatment and its associated costs due to client's illness may be too costly for many Ugandans.

### **1.3 Objectives**

The main objective of the study is to assess factors influencing utilization of FP services among HIV positive female clients of Kitagata hospital. The specific objectives are:

1. To determine the proportion of HIV positive women using FP services in Kitagata hospital.
2. To assess factors associated with family planning use among HIV positive clients in b Kitagata hospital.

### **1.4 The following hypotheses were tested:**

1. A higher level of children's desire among HIV positive female clients is likely to lead to low utilization of FP services.
2. HIV positive female clients who discuss with their spouses on FP are likely to use FP methods more than those with no support.
3. HIV positive females with higher education levels are more likely to use FP than those with low education levels.
4. HIV positive females who are taking only seprtime are more likely to use FP than those on ARVs.



5. HIV positive females who have ever heard about FP are more likely to use FP than those who have never heard.

### **1.5 Significance of the study**

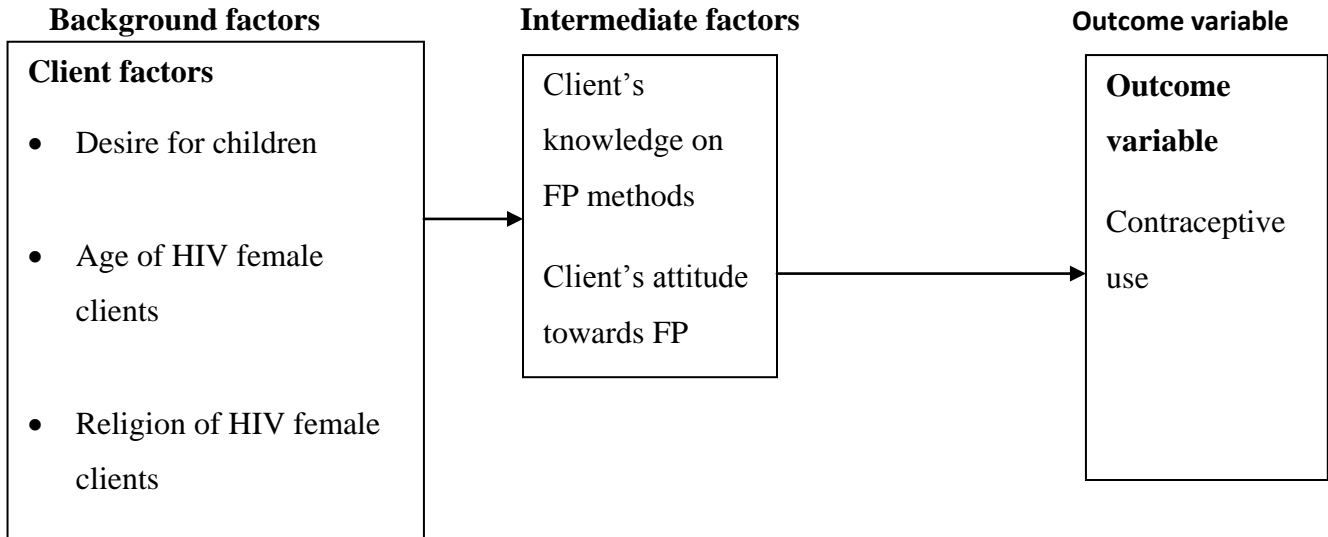
Family planning as a component of comprehensive HIV/AIDS care plays a dual function for prevention of HIV transmission as well as unwanted pregnancy. This component needs to be understood by availing the necessary information through scientific research in order to improve service delivery.

Study findings will benefit the hospital management in planning and management of the hospital. The other group it will benefit will be the District Health Officer and the DHT committee, the donors for the hospital like Star SW, TREAT, SUSTAIN, MOH in streamlining the gaps in the implementation of the integration of HIV /Family planning services.

### **1.6 Conceptual Framework**

The conceptual framework explains the relationship between the independent variables, intermediate variables and the dependent variables. Independent variables (clients and provider related factors) have an effect on FP utilization through client's knowledge on FP methods, client's attitude towards FP methods, staff attitude towards HIV female clients and through availability of family planning services. Age of HIV female clients is assumed to determine the utilization of family planning among the HIV positive females. Those that are old and young but sexually active are more likely to utilize FP, thus having a positive attitude and increased knowledge towards FP methods. With the desire for children, it is assumed that women who already have children have a positive attitude towards utilization of FP methods and have more knowledge of FP methods than those who still have desire for children. Education of HIV female clients is assumed to influence FP utilization. Women who are highly educated are assumed to have more knowledge and information about FP which changes their attitude to utilize FP methods.

**Figure 1.1 Conceptual framework of factors associated with Family planning utilization among HIV Female clients in Kitagata Hospital**



### 1.7 Structure of the dissertation

This dissertation is presented in five chapters. First, the introduction is in chapter one which includes background to the study, problem statement, objectives of the study, research hypotheses, conceptual framework and significance of the study. The second chapter focuses on literature review. The methodology including the sources of data, study variables, study population, data analysis, ethical consideration and study limitations are in chapter three. Study findings and their discussion are presented in chapter four. The last chapter provides summary and conclusions of the study and makes recommendations for future actions.

## CHAPTER TWO: LITERATURE REVIEW

### 2.1 Introduction

The literature reviewed on FP use among HIV clients was organized in themes corresponding to the objectives of the study. This includes FP use among HIV clients, client and provider factors associated with FP use among HIV positive clients.

## **2.2 Family planning use it is benefits among HIV positive clients**

Utilization of FP among HIV positive clients has benefits to both the public and the individual user. FP use results into fewer and healthier children that can be provided for by the family. Reduced births associated with use of FP have been found to relieve pressures due to population growth on economic, social, and natural resources. Therefore, few births make it easier to achieve improvements in education, environment quality and health. In Africa, women contribute up to 80% of the staple foods to the economy. FP equally is responsible for the economical growth since it contributes to better health of women (WHO, 1995). FP use by HIV positive clients is supportive in preventing high-risk and unintended pregnancies. Limiting births by HIV positive clients using FP implies that the client is actually practicing PMTCT.

In some cases women with unintended pregnancies are more likely to carry out unsafe abortion, which predisposes them to infections such as puerperal sepsis. FP plays a role in reducing such incidences, thereby improving maternal health and minimizing the cost of caring for the child in case infected with HIV. Alongside prevention of unintended pregnancies, condoms specifically prevent against sexually transmitted infections including HIV cross and re-infection (WHO, 2009).

In a survey on reproductive plans among HIV positive women in the United States, it was found that condoms were used as a means of preventing partners from HIV infections and pregnancy was just a secondary reason for their use. Non approval by partners was implicated for non condom use by some HIV positive clients. It is unclear whether the condom users with the intention to prevent pregnancy used the method correctly and consistency (Stanwood *et al.* 2007).

Barrier methods being coitally dependent, their efficacy in preventing either infections or unplanned pregnancy depends entirely on adherence by the couple. Targeting high risk populations has demonstrated high levels of barrier-method use. For example, in Thailand, a “100 percent condom policy” in commercial sex facilities led to wide spread use among the sex workers and their counterparts, which has led to decrease in HIV and STIs. Unfortunately, most heterosexual populations minimally use condoms and have not experienced decreases in STIs or HIV (Cates 2006).

In France, FP use was reported to be higher among HIV positive women with an HIV negative partner than those with an HIV positive partner (91% compared with 69%, respectively). Consistent condom use was 6.1 times higher in serodiscordant couples while the use of oral pills and intrauterine devices was

higher in seroconcordant couples. The use of oral family planning methods and intrauterine devices was realized to decrease among discordant couples after the introduction of HAART while it was higher among the ones with inconsistency condom use (Heard *et al.*2004).

In the women's interagency HIV study (WIHS) on hormonal contraception for HIV positive women, the findings indicated that HIV positive women were less likely to use oral family planning methods, intrauterine devices, and the rhythm methods. Barrier methods such as condoms and diaphragms were more likely to be used than hormonal FP methods. Estimates indicated that about 20% of HIV positive women used hormonal FP methods compared to 35% of negative women (Cocohoba 2010).

Findings from a study on the impact of antiretroviral therapy on incidence of pregnancy among HIV infected women in sub-Saharan Africa revealed that the rate of new pregnancies was significantly higher among women receiving ART compared to women not on ART. The chance of pregnancy was 80% greater among ART group than the pre-ART group. Other factors that were cited to be independently associated with increased risk of incident pregnancy were younger age, lower educational attainment, being married, cohabiting, failure to use non barrier contraception, and higher CD4 counts (Myer *et ai.*2010).

In a study on FP use among women enrolled into preventive HIV vaccine trials in East Africa (Uganda, Kenya and Tanzania), FP methods used include hormonal methods, male condoms, Bilateral Tubal Ligation (BTL) and abstinence. Among hormonal FP methods, Depo-Provera ranked high in utilization (Kibuka *et al.* 2009)

Similarly, findings from a study done on pregnancy desires, contraceptive knowledge and use among PMTCT clients in Rwanda, preference for modern FP methods among HIV positive women was at 43%. Information got on various FP options from a health worker during their last pregnancy facilitated client decisions (Delvaux *et al.* 2009).

On the other hand, promoting FP use among HIV positive clients helps mitigate the new infection that can arise by mother to child transmission (MTCT) due to unwanted pregnancies, thereby reducing the child AIDS deaths. A case in Uganda revealed that use of FP among HIV positive clients averted an estimated 19.7% of infections and 13.1% of deaths (Hladik *et al.* 2009).

Though FP interventions have been underutilized in HIV care, it is more beneficial than antiretroviral prophylaxis. The Ugandan data for 2007 estimated FP to be responsible for the prevention of 6,100 infant infections in the country compared with 2,200 infections prevented by antiretroviral prophylaxis (MOH ACP 2002)

### **2.3 Client-related factors associated with family planning use among HIV positive clients**

UNFPA (2010) argues that alongside the place of residence and age of the client, FP use is influenced by wealth and education. They affirm that in sub-Saharan Africa only 10% of women with no education and 10% of those belonging to the poorest households use contraception. In contrast, 42% of Women with secondary or high education and 38% of women belonging to the wealthiest households use family planning.

Although most of the factors affecting FP use reflect general social and personal plans, HIV specific issues that affect decision on whether to use or not use FP considered by women includes higher CD4 count, and whether one is on antiretroviral therapy (Stanwood et al. 2007). Results from a study in rural Uganda on fertility desires found that more women on ART were not using FP compared to those not on ART (Heys *et al.*2009).

Religion sufficed again as an influencing factor as cited in a study conducted in Masaka diocese. In their works, Nakiboneka and Maniple (2008) cited the Roman Catholic Church teachings as opposed to use of artificial FP. Roman Catholic Church is said to think that “artificial FP methods interfere with the openness of the marriage act to transmission of life.” These forms of FP methods also “frustrate the natural processes through interruption by mechanical devices or chemical interventions.”

As far as service delivery is concerned, identifying and understanding client factors associated to FP use in the HIV care settings, with the event of the integrative approaches in health service delivery could enable health service managers to strategically improve FP services.

Factors that affect FP use can arise from the client side. These are important because decision to use or not of FP is dependent upon the client or couple. Among client factors that were identified in a study on correlates of consistent condom use among African American women living in the United States was their HIV status. Women with HIV were more likely to use condoms (Raiford *et ai.* 2008).

Among the factors that influenced non use among the study participants in a study on FP use in women enrolled into preventive HIV vaccine trials in East Africa (Uganda, Kenya, and Tanzania) included insufficient knowledge on FP methods, lack of partner support, and myths and misconceptions attached to FP use (Kibuuka *et ai.* 2009).

However, in the general population irrespective of HIV status, 97% of Ugandan women are knowledgeable on FP and yet no great improvement has been realized on the FP prevalence that stands at 30%. Knowledge in this case was defined by ability to mention any one FP method. In this study since HIV positive individuals are expected to be receiving more information on FP, knowledge was defined by mentioning at least 2 FP methods. In the same survey, it was stated that 48% of the married women had spousal approval to use FP and up to 55% of the sexually active but unmarried women were found to have ever used FP methods (UBOS and Macro International Inc.2007).

This may not be surprising since the unmarried women may use FP with their partners because of uncertainty of partners' HIV status and prevent pregnancy. Access to FP services is vital as it was found that the married women in urban settings were twice as likely to use FP as those in the rural areas. Women prefer getting at least one child before accepting use of FP because they may be assumed to be barren in case of no child. FP use is affected by age differences among women. The contraceptive prevalence among women aged 1-19 years was 9%, yet by age 15, 14.2% of them are already sexually active (MoH 2009b).

#### **2.4 Empirical and knowledge gaps**

Knowledge gaps still exist in implementation of FP-HIV integration hence the need to aggregate FP information in reference to HIV care. Most of the studies that have been carried out on FP have included women as their study units and ignored men, who in the African context influence many decisions.

It is probable that these studies have focused more on the females because various FP methods are targeted to them. Similarly, many of the factors that have been identified to influence FP have been generated from cohort studies managed by projects. Clients in such programs have incentives and good follow-up mechanisms. There is uncertainty of these factors being the same in a routine HIV care program in the public sector.

One of the indicators that have been considered in most studies, including UBOS and Macro International Incorporation (2007) is knowledge, characterized by ability to state at least one FP method.

In this study, knowledge was characterized by ability to state at least two FP methods. This was because FP is one of the components in the comprehensive HIV care package and we expected that HIV positive clients would be more knowledgeable.

Getting further, utilization of FP is not clearly distinguished among HIV positive clients on ART and those not on ART in the public hospitals. We want to get an idea on FP use among ART and non- ART - HIV clients.

## **CHAPTER THREE: METHODOLOGY**

### **3.1. Study area**

The study was conducted in Kitagata hospital in S.Western region of Uganda Sheema district formally Bushenyi. It offers a range of Services of which family planning and HIV/AIDS services are inclusive. The active number of clients on both ART and Non- ART in the clinic were 550 of whom 345 are females and 205 by August 2012.

The main inhabitants of the district are Banyankole, Bakiga, Banyarwanda, Bafumbira, Banyaruguru, Banyoro, Batoro, Bamba, and Batagwenda tribes. These tribes practice subsistence farming and fishing as major economic activities

### 3.2. Study design

The study was cross sectional which involved both quantitative and qualitative data collection methods and analysis.

### 3.3 Selection of Qualitative study respondents

Using purposive sampling method, KIIs were selected up to a total of 10 hospital staff members, 3 were hospital administrators and 7 clinical staff. Administrators included hospital administrator, senior principal nursing officer, and medical superintendent while the clinical staff included counselors, clinical officers, medical officers, clinic in charge and dispenser. The administrators were interviewed because of their involvement in the core management function (planning, organizing, leading and controlling) of the hospital while the clinical staff were probed because they were the contact persons at the service delivery points for female positive clients who may need family planning services.

### 3.4. Sample size and sampling procedure

The sample size of the study was obtained using Yamane formula (Yamane,1967).

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

Where

$n$  is the expected sample size

$N$  is the total population

$e^2$  is the standard error

Therefore

$$n = \frac{N}{1 + N (e)^2} = \frac{345}{1 + 345 (.04)^2} = 222$$



Hence from the total population of 550 clients only 222 HIV female positive clients were to be interviewed for the study.

During the process of selecting individual clients, the researcher used the clinic data base to get active number of clients by the end of the quarter prior the study. In addition to that, the researcher acquainted herself with the clinic day's. Before triaging, clients were health educated and the researcher was introduced and asked to inform the clients the purpose of her visit.

At their exit, eligible female clients would be interviewed and be given a card to show on the next visit. If any of them had the card the next visits, she would not be interviewed. On every clinic day the researcher and her team would go and do interviews with every eligible female client until the target respondents were attained.

### **3.5. Variables, indicators, data sources, methods and tools for data collection**

The study variables indicators and method of data collection were determined as per each objective below.

**Objective 1:** To determine the proportion of women using FP services among HIV positive Females in Kitagata hospital in Western Uganda. The study variable of this objective was FP use among HIV positive clients. One of the study indicators for this variable was the proportion of HIV positive client that had ever used any FP method during HIV care.

The other indicator was the proportion of HIV positive clients currently using FP methods. Among FP users, we found out the proportions that were using specific FP methods. The method of data collection was client exit interviews. The data sources were clients and the tools for data collection were interviewer- administered questionnaires.

**Objective 2:** Assess factors associated with family planning use among HIV positive clients in Kitagata Hospital in Western Uganda. Some indicators that were considered included socio-economic and demographic characteristics such as age, education level, marital status, religion. These variables were analyzed using the odds ratio and the p-values when  $p=0.05$ , to test for significance. Other indicators included family planning knowledge, art-use, desire for children and identification of different sources of FP information. For the indicator Family planning knowledge, the client should be able to state at least 2

FP methods. The method of data collection was client exit interviews. The data sources were clients and tools for data collection were interviewer-administered questionnaires.

### 3.6 Data collection

The researcher visited the hospital with an introductory letter from the School of Statistics and planning. She was introduced to the clinic staff. Number of active clients reported in the 3<sup>rd</sup> quarter, as the most recent available data was used, proportions of clients were interviewed. The key informant interviews were carried out with the hospital staff while client exit interviews involved HIV positive female clients. Data was collected only from the respondents who consented to the interview.

### 3.7 Quality control

The questionnaires and checklists were pre-tested in Ishaka hospital in order to improve clarity, accuracy and design to avoid ambiguity of questions. However, the researcher was personally involved in the data collection process.

The questionnaires and checklists were serialized to avoid double entries and omissions. At every stage the supervisor’s opinion was sought for purposes of making any amendments.

### 3.8 Data processing

Quantitative data was coded and entered into statistical package for social scientists (SPSS version 16.0) and cleaned. Exploration of data was by SPSS.

### 3.9 Data analysis

Data analysis was done at univariate, bivariate and multivariate levels. At univariate level, frequency distributions were done. At bivariate level, two variable relationships, one being dependent and other independent was investigated through cross tabulations using person chi square test, which established the relationship between the dependent and independent variables at 5% level of significance.

The value of the test-statistic is

$$\chi^2 = \sum_{i=1}^n \frac{(O_i - E_i)^2}{E_i} \dots\dots\dots 3.1$$

Where

$\chi^2$  = Pearson's cumulative test statistic.

$O_i$  = an observed frequency;

$E_i$  = an expected (theoretical) frequency, asserted by the null hypothesis;

$n$  = the number of cells in the table.

Binary Logistic regression method was used to estimate the factors associated with FP utilization. The model will be in form of;

$$\text{Log} \left[ \frac{p_i}{1 - p_i} \right] = \beta_0 + \beta_1 i \times 1 + \beta_2 i \times 2 + \dots \beta_k i \times k \dots \dots \dots 3.2$$

Where  $p_i$  is the probability of a woman utilizing family planning methods,  $\beta_0$  is the base line constant is an array of (k) independent variables and  $\beta_s$  are the corresponding regression coefficients.

Frequencies and percentage were generated, p-values and odds ratios for bivariate analysis was generated using STATA version 12. Any factor with a p-value of less than 0.05 at 95% confidence interval was considered statistically significant.

### 3.10 Limitations of data collection

Data and records about utilization of FP in the HIV clinic were hard to get in the hospital. FP data was not captured within the HIV clinics though the clients ART cards had the provision. FP information that was to be captured in the ART card included FP methods used by client if any, whether client was counseled for FP and whether client was referred for FP services not provided in the HIV clinic.

Data had issues like double entries and counts since clients had a possibility of attending clinics more than once in the quarter. The researcher had to first clean the data with the health management information officer to get what would be best for her to use for the study. There was recall bias on some responses that inquired about past events like previous training and FP commodity stock –out. The observation checklist missed out on the quality of FP counseling.

Some study variables had limited data collected on them. Hence not fully utilized in the study findings.

However with the above challenges the study has generally been a good experience. It has come at a time when FP-HIV integration has hit the mark, in which case service provision for PLWHA is taking that direction.

### **3.11 Ethical considerations**

The School of Statistics and Planning approved the proposal; the researcher was given a letter of introduction to be presented to authorities of the proposed hospital for the study. Written consent was sought from the hospital where the study was conducted for backup. All interviews were carried out in an area that allowed confidentiality and the respondents' signed consent.

## **CHAPTER FOUR: STUDY FINDINGS**

### **4.1 Introduction**

This chapter presents the findings of the study as well as discussion of the results. The univariate level presents the background characteristics of the respondents. The bivariate level presents the association between factors influencing utilization of FP services among HIV Positive female clients and the various independent variables and finally the multivariate level presents the factors that are responsible for the

utilization of FP services among HIV positive female clients using the logistic regression model. The study was supposed to interview 222 HIV positive female clients but only 191 females were interviewed and this was due to the cost implication factor. However the researcher managed to achieve 86% which is statistically accepted for the study.

#### **4.2 Background characteristics of the respondents**

The background characteristics considered in this research were age, religion, education level and marital status.

**Table 4.1 Distribution of respondents by demographic and socio-economic characteristics**

<b>Demographic Characteristics</b>		<b>Frequency</b>	<b>Percent</b>
Age	15-19	8	4.0

	20-24	20	10.4
	25-29	21	11.0
	30-34	2	10.5
	35-39	26	13.5
	40-44	56	29.2
	45-49	36	18.7
	50+	4	2.6
Religion	Catholic	49	25.7
	Protestant	60	31.4
	Muslim	47	24.6
	Pentecostal	29	15.2
	<sup>1</sup> Others	6	3.2
Marital Status	Married	140	73.3
	Single	26	13.6
	Cohabiting	7	3.6
	Widowed/separated/divorced	18	9.4
Education Level	No formal education	52	27.2
	Primary	70	36.7
	Secondary, Vocational or Technical	34	17.8
	Tertiary or higher	23	12.0
	declines to answer	12	6.3

<sup>1</sup>Others: included Seventh Day Adventist and Isa Messiah

Table 4.1 shows that over a quarter of the respondents (29%) were aged 40-44 years followed by those aged 45-49 (19%) and 35-39 (14%). Close to three quarters of respondents (73%) were married while only 37% had at least primary school level. The majority of the respondents were Protestants (31%) followed by the Catholics (26%) and Moslems (25%).

#### 4.3 Knowledge of FP services among HIV positive female clients.

**Table 4.2 Knowledge of FP services by Respondents.**

<b>Clients understanding of FP</b>	<b>Frequency</b>	<b>percent</b>

Spacing children	89	46.6
Attaining desired number of children	66	34.6
All 3 identify priorities for family, spacing children, att desire number of children	17	8.8
Identify priorities for family	11	5.8
Preventing pregnancy	8	4.2
<b>Source of information</b>		
Health facility	128	67.0
Community sensitization	128	67.0
Radio	111	58.1
Posters	47	24.6
Husband	26	13.6
Church	4	2.1
<b>FP counseling job aids</b>		
Charts only	115	60.2
FP commodities only	79	41.4
Posters	52	27.2
None	50	26.2

From Table 4.2, respondents had some understanding of FP. 34.6% of the respondents stated the meaning of FP correctly and 50.8% of them had a good ideal of FP (spacing children and preventing pregnancy)

The majority of the clients heard about FP from various sources. Table 4.2 also shows that while the respondents heard FP from different sources, the main sources of FP information among clients were health facility (67%) and community sensitization (67%) which is in line with the Ministry of health information and communication guidelines. It was reported that the churches were poor sources for family planning information as shown in the table.

The table shows, that most (60.2 %) of the clients who received FP counseling from the HIV clinic were counseled with charts only. Over a quarter of the respondents (26 %) confirmed that they received FP counseling from the same clinic but counseling was done with no IEC materials.

Some of the different types of FP materials in the clinic were screening checklist for FP initiation on COCs, IUD, BLT, quick reference, FP fact sheets, flip books in the clinic.

#### 4.4 Ever heard and current Family planning use among HIV positive female clients.

**Table 4.3: Distribution of respondents by ever used FP methods in last one year and currently using FP methods in last 3 months.**

<b>Ever used</b>	<b>Frequency</b>	<b>Percent</b>
Yes	184	96.3
No	7	3.7
<b>Currently using</b>		
Yes	154	80.6
No	37	19.3
Totals	191	100.0

Ever used FP method was measured using a time frame of 1 year. Table 4.3 shows that almost all respondents (96%) had ever used FP methods. Currently using was measured using the time frame of with in the last 3 months. Those who are currently using FP were (81%).

#### 4.5 Current Family planning use among HIV positive Female clients by methods.

Table 4.4 indicates that of the respondents in the study single FP users contributed 67% and the clients on dual protection were 12%. The rest (19%) were non users. Considering the FP method mostly used by the clients, 58.6% of them were using condoms only or with other methods. However, no one reported to be using tubal ligation.



**Table 4.4: Current Family Planning use among HIV positive female clients by method.**

<b>FP use</b>	<b>FP method</b>	<b>Frequency</b>	<b>Percent</b>
Single FP use	Condom	89	46.6
	Pills	23	12.0
	Depo	15	7.9
	IUD	4	2.1
Dual FP use	Condom and pills	20	10.5
	Condom , Depo	2	1.0
	Condom and IUD	1	0.5
Non users		37	19.4
Total		191	100.0

**4.6 Source of FP services by current users.**

It is interesting to note that from Table 4.5 more than half (55%) of clients received FP services from the HIV clinic. However, a third (32%) said they were getting services from the private.

**Table 4.5: sources of FP methods by current users**

<b>Source</b>	<b>Frequency</b>	<b>Percent</b>
HIV clinic	105	54.9
Private clinic	61	31.9
FP clinic	42	21.9

**4.7 Why non FP client users do not use FP.**

From Table 4.6, various reasons were given by clients for not using FP. Among the reasons given by those who were not using FP, 54.0 % of the clients wanted more children, followed by partner wants to have more children (18.9 %), my partner does not allow (13.5%) and I do not have a partner (8.1%) while misconceptions for FP were reported by (5.4 %).

**Table 4.6: Why non FP client users do not use FP (N = 37)**

<b>Reasons</b>	<b>Frequency</b>	<b>Percent</b>
I want to have more children	20	54.0
My partner wants to have more children	7	18.9
My partner does not allow	5	13.5
I don't have a partner	3	8.1
Misconceptions for FP	2	5.4

**4.8 Factors associated with family planning use among HIV positive clients.**

Various factors were cross tabulated with the dependent variable. The results are displayed in Table 4.7.

**Table 4.7: Relationship between clients related factors and FP use**

<b>Variables</b>	<b>use</b>	<b>percent</b>	<b>Non use</b>	<b>percent</b>
------------------	------------	----------------	----------------	----------------

<b>Age</b>				
15-24	21	80.8	5	19.2
25-39	57	85.1	10	14.9
40-50+	55	80.3	11	16.7
$\chi^2=5.6$ $p=.018$				
<b>Religion</b>				
Catholic	44	89.7	5	10.2
Protestant	46	76.6	14	23.3
Muslim	42	89.4	5	10.6
Pentecostal	23	79.3	6	20.7
<sup>1</sup> Others	3	50.0	3	50.0
$\chi^2 =21.0$ $p=.003$				
<b>Marital status</b>				
Married	127	90.7	13	9.3
Single	19	73.1	7	26.9
Cohabiting	4	57.1	3	42.9
Widowed/separated/divorced	12	66.7	6	33.3
$\chi^2 =6.15$ $p=.0041$				
<b>Education level</b>				
No formal education	41	78.8	11	21.1
Primary	64	91.4	6	8.6
Secondary, Vocational	31	91.1	3	8.8
Tertiary or higher	19	54.2	16	45.7
$\chi^2 = 7.59$ $p=.0024$				
<b>Desire for children</b>				
Yes	76	92.7	6	7.3
No	86	78.9	23	21.1
$\chi^2= 29,6$ $p=.165$				
<b>Having children</b>				
Yes	137	88.9	17	11.0
No	28	75.7	9	24.3
$\chi^2 =14.9$ $p=.000$				

<b>Taking ARVs</b>				
Yes	90	84.9	16	15.1
No	75	88.2	10	11.7

$\chi^2 = 19.4$ $p = .0129$				
<b>Spouse communication on FP issues</b>				
Yes	54	60.0	36	40.0
No	77	76.2	24	23.8
$\chi^2 = 12.42$ $p = .006$				
<b>Ever heard about FP</b>				
Yes	69	75.0	23	25.0
No	43	43.4	56	56.6
$\chi^2 = 4.81$ $p = .018$				
<b>Distance to facility</b>				
Less than an hour	51	59.3	35	40.7
1-2	39	69.6	17	30.4
More than 2 hours	43	87.8	6	12.2
$\chi^2 = 29.68$ $p = .001$				

#### 4.8.1 Variables significantly associated with use of FP.

From results of bivariate analysis in Table 4.7, it can be seen that those aged 25-39 (the middle aged) were utilizing FP services most followed by 15-24 years (80.8) and 40-50+ (80.3%). It can be observed that non utilization of FP services increased with an increment in age of the respondents and differences between age groups were statistically significant ( $p = .0180$ ).

Table 4.7 shows that Catholics (90%) used FP more than respondents of any other religion followed by Moslems who were (89%) and Pentecostal (79%). Non utilization of FP methods was reported to be high among Protestants (23%). It is seen that religion was statistically significant with FP use ( $p = .003$ ).

It is observed from the results that marital status was statistically significant with FP use ( $p = .004$ ). The married (90%) were highly using FP more than respondents of other marital status, followed by singles (73%). On the side of non utilization of FP, those cohabiting were reported to be the highest at (43%).

Education level was statistically significant with FP utilization with  $p=.0024$ . Respondents with primary and secondary education (91%) were using FP more than females of other education levels, followed by females with no education (79%). Those with tertiary and higher education reported the highest number of not using FP (46%).

Also Table 4.7 indicated that, taking ARVs was statistically significant with FP utilization at ( $p=0.012$ ). Almost 85% of those who were taking ARVs were using FP compared to 88% of those taking seprine only.

Spouse communication was statistically associated with FP use among the respondents ( $p = .006$ ). It is observed that 76% who were not communicating with their spouse were using FP more than respondents communicating with their spouse (60%). This leaves 40% of those who were communicating with their spouse about FP as non users.

Ever heard about FP was also statistically associated with FP use ( $p = .018$ ). The majority of respondents (75%) who have ever heard about FP information were using FP compared to (57%) respondents who have never heard about FP information and were not using FP.

From the results in Table 4.7 it is seen that distance to facility also had an effect on FP use ( $p = .001$ ). However, results show that respondents who were travelling for more than 2 hours (88%) were using FP more than those who were traveling less than an hour to the facility (59%). Those who were travelling less than an hour (41%) were not using FP.

Table 4.7 shows that only one variable, desire for children was not significantly associated with FP utilization as evidenced by  $p=.165$ .

#### **4.9 RESULTS FROM MULTIVARIATE ANALYSIS**

A logistic regression was fitted to the data and results are shown in Table 4.8. The significant results in the table are explained in subsequent sub sections. Only taking ARVS and having children were not significantly related to use of FP by the respondents.

**Table 4.8: Results of the Logistic Regression.**

Variables in the model		Coef	OR	SE	p-value
Having children	Yes*	0.000	1.000	.	.
	No	1.003	3.46	1.236	0.272
Religion	Protestant*	0.000	1.000	.	.
	Catholic	-1.109	0.331	0.050	<b>0.023</b>
	Muslim	-17.333	0.76	0.138	0.697
	Pentecostal	1.387	1.42	0.957	<b>0.040</b>
	Others	1.321	1.69	1.064	0.052
Marital status	Married*	0.000	1.000	.	.
	Single	0.155	0.32	0.891	0.697
	Cohabiting	0.017	1.72	1.542	<b>0.040</b>
	Widowed	-1.096	0.52	0.326	<b>0.009</b>
Education level	None*	0.000	1.000	.	.
	Completed primary	-0.326	0.74	0.192	0.095
	completed secondary	0.343	1.810	1.035	<b>0.031</b>
	Higher	2.634	1.540	0.913	<b>0.027</b>
Walking time to service delive	Less than an hour*	0.000	1.000	.	.
	1-2 hours	0.53	0.30	0.020	<b>0.000</b>
	More than 2 hours	0.412	1.009	1.326	0.157
Discussed with spouse	Yes*	0.000	1.000	.	.
	NO	-1.58	0.351	0.724	<b>0.042</b>
Desire for children	Yes*	0.000	1.000	.	.
	NO	-0.485	0.32	0.168	<b>0.006</b>
Taking ARVs	Yes*	0.000	1.000	.	.
	NO	3.053	1.83	1.019	0.589
Ever heard about FP informat	Yes*	0.000	1.000	.	.
	NO	-7.329	0.30	0.071	<b>0.015</b>

\* is the reference category

The dependent variable is current use of Family Planning.

#### 4.9.1 Religion

Religion has immense social, economic, and political significance in most societies, and it plays an important role in sanctioning or promoting acceptance of or creating resistance to FP (Pearce, 2001; Islam et al.1991). According to Table 4.8 there is a significant association between religion and current use of FP. Catholics were significantly less likely to be currently using FP methods compared to Protestants ( $p < 0.005$ ). Pentecostals were also significantly more likely to be currently using FP methods compared to Protestants ( $p < 0.005$ ). There was no significant difference in the odds of using FP among Moslems and others compared to Protestants. These results are not surprising due to the Roman Catholic Church teachings which do not support use of artificial FP methods (Nakiboneka and Maniple 2008). Following these teachings the followers of the Catholic faith would not be expected to use such FP methods at all. However, Catholic clients could have been influenced by the possible personal benefits of FP use such as preventing high risk and unintended pregnancies as argued by WHO (2009). However, in contrast to Shinyanga study results on utilization of modern family planning methods among women of reproductive age in a rural setting, there was a strong statistical association between FP use and the religion of the respondents ( $p = 0.000$ ), with the highest likelihood of using the methods being among women in the Catholic denomination.

#### **4.9.2 Marital status**

The table shows that there is a significant relationship between marital status and current use of FP. Cohabiting clients were significantly more likely to use FP compared to the married clients ( $p < 0.040$ ). Also, the widowed clients were also significantly more likely to use FP compared to the married clients ( $p < 0.009$ ). However, results are not what was found by Raiford et al (2007) who stated that FP utilization is more associated with married women because marriage predisposes them to regular sexual exposure.

#### **4.9.3 Education level**

According to Table 4.8, there is significant relationship between education level and current use of FP. Women who had completed secondary education were more likely to use FP compared to women with no education ( $p < 0.05$ ). Furthermore, women with tertiary and higher education were also more likely to use FP methods compared to women with no education ( $p < 0.05$ ). However, women who had completed primary were less likely to use FP than women with no education. The findings on secondary and higher education agree with studies by Stephenson et al (2007) and UNFPA (2010) who stated that higher education attainment was more likely to be

associated with FP use compared to lower education attainment. This is perhaps due to the higher educated women being more informed of various types of FP method, cost and benefit of smaller family size, resulting in higher odds of using contraceptive. This finding is also consistent with results of study conducted on Pakistani women (Agha, 2010).

#### **4.9.4 Distance to facility**

Distance to the service delivery points is expected to influence the use of the FP. The study results in Table 4.8 indicate a statistically significant association between distance to the facility and FP use. Findings from this survey revealed that women who lived closer to the facility tended to use FP methods more than their colleagues who had to walk for an hour or more.

#### **4.9.5 Spouse communication on FP issues**

There is a significant association between the outcome variable and the independent variable. ( $p < 0.05$ ). HIV positive females who were not discussing FP with their spouses were less likely to use FP compared to their counterparts. This statement is in line with the study findings of Casterline, Perez, and Biddlecom, (1997) which claimed that a husband's opposition may prevent his wife from using contraception, even when she wants to delay or stop childbearing. Further studies reveal that women's inferior position in the household and lack of negotiation power often limit couple communication from either side (Salway, 1994; Dixon-Muller, 1993). However, a growing body of literature has shown that spousal communication regarding FP is one of the factors associated with the approval of FP (DeRose et al., 2004; Islam et al., 2004) and couples who discuss FP are more likely to use a contraceptive method (Link, 2011; Ogunjuyigbe et al., 2009; Tesfayi and Mishra, 2007; Laguna et al, 2000). These differences could have been brought in by different data sets that were being used.

#### **4.9.6 Desire for children**

There is a significant association between desire for children and current use of FP ( $p < 0.05$ ). HIV positive females who never desired children were less likely to use FP compared to those who still desire children. The reasons advanced for not using FP yet never wanted children were that FP comes with its own effects like constant bleeding and others which increases their already side effects from ARVs and were fearing the pill burden. This argument and result are in line with the study carried out by MOH/ACP (2012) as to why there is poor integration of FP into HIV services.



#### **4.9.7 Ever heard information about FP**

There is significant association between current use of FP and ever heard about FP information. HIV positive females who have ever heard no information about FP were less likely to use FP compared to those who heard the information. Perhaps this could have been that those HIV positive female respondents were on septrine only and were not given more time for counseling on FP and in many cases they were prescribed from the tables of waiting rooms (triage).

## **5.1 Introduction**

This chapter presents the summary of the findings, conclusions and recommendations. The findings are based on the analysis done in the previous chapters in reference to the hypotheses stated in chapter one.

## **5.2 Summary of the findings**

The overall objective of this study was to assess factors influencing utilization of FP services among HIV positive female clients of Kitagata hospital. Over a quarter of the respondents were aged 40-44 years, three quarters were married while less than two fifth had at least primary school level and the majority of the respondents were Protestants. Substantial proportion of the respondents stated the meaning of FP correctly and half of them had a good idea of FP. The main sources of FP information among clients were health facility and community sensitization. A fifth of the clients who received FP counseling from the HIV clinic were counseled with charts only, four fifth were currently using FP methods, single FP users were two thirds and more than half of clients received FP services from the HIV clinic.

Whereas the Catholics were less likely, Pentecostals were more likely to be currently using FP methods compared to the Protestants. Cohabiting and widowed respondents were more likely to use FP compared to the married clients. Respondents who had completed secondary and higher education more likely to use FP compared to women with no education. Those who lived closer to the facility tended to use FP methods more than their colleagues who had to walk for an hour or more. Respondents who were not discussing with their spouse on FP use were less likely to use FP compared to their counterparts. HIV positive females who have ever heard no information about FP were less likely to use FP compared to their counterparts. HIV positive females who were taking seprine were more likely to use FP compare to those who were taking ARVs. However, there was no significant variation in the odds of using FP by respondents who had children and were taking ARVs.

## **5.3 Conclusions**

This study has several hypotheses that were tested. The first hypothesis was that higher level of children's desire among HIV positive female clients is likely to lead to low utilization of FP services. The study results conform with the statement that HIV positive females who never desired children were less likely to use FP compared to those who still desire children.

The second hypothesis was that HIV positive female clients who discuss with their spouses on FP are likely to use FP methods more than those who do not communicate. This is in line with the study results that HIV positive females who were not discussing FP with their spouses were less likely to use FP compared to their counterparts.

Thirdly, HIV positive females with higher education levels are likely to use FP more than those with low education levels. This is in line with the study findings which were that women who had completed secondary education had higher odds of using FP compared to women with no education. The results furthermore show that women with tertiary and higher education had higher odds of utilizing FP methods compared to women with no education.

Fourth, HIV positive females who are taking only seprine are more likely to use FP than those on ARVs. The study findings show that there is no difference between those taking ARVs and those not taking ARVs.

Lastly, HIV positive females who have ever heard about FP information are more likely to use FP than those who have never heard. This is in line with the study findings which show that, HIV positive females who have ever heard no information about FP were less likely to use FP compared to those who heard the information.

## **5.4 Recommendations**

Results showed that Catholics were significantly less likely to be using FP methods compared to Protestants. The church should encourage the Catholics to start using natural Family Planning methods and this can be done through massive sensitization of communities, radio spots and radio talk shows.

Results show that married HIV clients were less likely to use FP than those not married. The Government of Uganda under MOH should develop programs targeting married couples given that recent studies have shown that HIV has increased among married couples. Secondly, there should be promotion of male involvement in FP programs since they are the decision makers culturally who could be the ones denying their spouses a chance to use FP.

Results show that HIV positive women who never went to school are less likely to use FP. There should be community sensitization among female clients who have completed primary education and those below primary level. In addition, the government should consider involving FP education sessions in primary education co curriculum.

Findings from this survey revealed that women who lived closer to the facility tended to use FP methods more than their colleagues who had to walk for an hour or more. The Government should try to equip the health center II with FP services and the MOH should develop a policy on VHTs distributing the FP methods to their communities

Findings show a significant association between spouse communication and FP use .There is need for MOH to develop guidelines for male involvement and circulate them to facilities and VHTs to encourage men to give support to their women.

### **5.5 Future research agenda.**

If this research was to be done again, my observation checklist would include the quality of FP counseling. In case of more time, systematic random sampling of respondents would be used. Future research can also consider a comparative study on utilization of FP among HIV clients in public hospitals and private not for profit HIV/AIDS services organizations. Another study could be assessing HIV service providers' perceptions on introduction of comprehensive FP service.

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**Appendix 1: CLIENT QUESTIONNAIRE:**

**Section 1: Introduction and informed consent**

Good Morning/Good afternoon Sir/Madam. I am Tumuhairwe Juliet a post graduate student from Makerere University pursuing a Master of Science in PRH and as a requirement for acquisition of this degree; I am supposed to carry out a research. I therefore chose to carry out a study of utilization of FP services among the HIV female clients in Kitagata hospital. I would like to request you to participate in this research by being a respondent and offer me truthful and honest information. Participation is voluntary and information will be kept confidential. The information you will give will be used to derive conclusions and generate recommendations for the MOH, DHO, SHM, HIV providers to improve health service delivery

Do you have any questions now before we begin?

I start asking the questions now 1) Yes 2) No (if no end the interview)

If yes signature/thumb print of the interviewee

Signature .....

Date.....

**Section 2: Background information**

Questionnaire Number.....  
interview.....

Date of

Name of hospital.....

Client's Residence: District.....

County.....

Sub county.....

Parish.....Village/LC1 Zone.....

**Section A: Please tick the most appropriate and where required fill in the space provide**

No	questions	Responses	Comments
1	Age	1)15-18 2)19-25 3)26-35 4)36-49 5)≥50	
	What is your age		
	When were you born		
2	Religion	1)Catholics 2)Protestant 3)Muslim 4)Pentecostal 5) Others (specify)...	
3	Did you attend any formal education	1) Yes 2) no	
4	If you attended formal education, what is the highest education level attained	1)Lower primary(P.1-P4) 2)Upper primary(P.5-P.7) 3)Ordinary sec level(S1-S4) 4)Advanced sec level(S5-S6) 5)Tertiary Institution 6)None 7)Others	
5	How about the spouse ,what is there level of education attained	1)Lower primary(P.1-P4) 2)Upper primary(P.5-P.7) 3)Ordinary sec level(S1-S4) 4)Advanced sec level(S5-S6) 5)Tertiary Institution 6)None 7)Others	
6	Marital status	1)Married 2)single 3)cohabiting 4)widowed/separated/divorced	
7	Do you have children	1)Yes 2)No	
8	If you have children how many are alive	.....	
9	Would you like to have more children	1)Yes 2) No	
	If you happen to have other children when do you wish to have	1)within 1 yr 2)when my immunity is strong 3)when my pattern allows 4)I don't know 5)others specify	
7	Do you take ARVs	1) YES 2)no	
8	If you take ARVs how long have you been	Years.....Months.....	



	on them		
<b>Section B: Please tick the appropriate options</b>			
9	Have you ever had any information about family planning	1)Yes 2)No	
10	If you have heard about FP , where did you get the information from (tick all that apply)	1)Radio 2)Community sensitization 3)Health facility 4)Others(specify)	
11	What information do you know about FP	1)Identifying priorities for family 2)Is spacing children 3)Attaining desired number of children, with spaced births by use of FP methods 4) Others(specify)	
12	What are some of the FP methods that you know (tick all that apply)	1)Condoms 2)Pills 3)Depo- Provera 4)Implants 5)IUD 6)Others(specify)	
13	Have you ever used any method of FP	1)YES 2)no	
14	If you have ever used FP method within the last one year, which methods were they (tick all that apply)	1)Condoms 2)Pills 3)Depo- Provera 4)Implants 5)IUD 6)Others(specify)	
15	When was the last time you used the FP method mentioned	1)Am currently using 2)Less than 3 months ago 3)More that 3 Months ago 4)I don't remember 5)Others(specify)	
16	If you are currently using which one are you using (tick all that apply)	1)Condoms 2)Pills 3)Depo- Provera 4)Implants 5)IUD 6)Others(specify)	
17	If you are using condoms as a FP method, how frequent is it	1)Consistently with my regular pattern 2) Consistency with my regular pattern (s) only 3)Whenever available 4)N/A 5)Whenever my partner allows 6)others(specify)	

18	Where do you get your current FP methods from	1)HIV clinic 2)FP unit 3)Private clinic 4)Others9specify)	
19	If you are not using any FP method, what could be the main reason(tick most appropriate)	1)I want to have more children 2)My partner wants to have more children 3) My partner does not allow 4)My partner is also HIV positive 5)Others(specify)	

**Section C: Tick the most appropriate options**

20	Have you ever received any FP method from this clinic	1)Yes                      2)No	
21	What FP service have you received from this HIV clinic (tick most appropriate)	1)Condoms 2)Pills 3)Depo- Provera 4)Implants 5)IUD 6)Others(specify	
22	What items were you shown by counselor while discussing with you about FP during the counseling sessions	1)FP commodities 2)Charts 3)Posters 4)None 5)Others(specify)	
23	Has the service provider informed you about any FP methods that may be used or not a person taking ARVs	1)yes    2)no	
24	Which FP methods were you told that a person taking ARVs may use	1)Condoms 2)Pills 3)Depo- Provera 4)Implants 5)IUD 6)Others(specify	
25	Which FP methods were you told that that a person taking ARVs may not use	1)Condoms 2)Pills 3)Depo- Provera 4)Implants 5)IUD 6)Others(specify	

**Section D : Tick the most appropriate options**

26	If you did not receive the FP methods from the clinic why do you think it happened so	1)Staff didn't tell me about FP 2)Unavailability of FP methods 3)Staff was unfriendly 4)Time when FP services are provided not convenient	
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		5)Others (specify)	
27	Have you ever been referred anywhere for FP services	1) Yes                      2) No	
28	What FP method did you receive from where you were referred	1)Condoms 2)Pills 3)Depo- Provera 4)Implants 5)IUD 6)Others(specify	
29	If you did not get any of the FP services provided what could have been the reason	1)Unavailability of FP methods in referral 2)Staff was unfriendly 3)Services were expensive 4)Others(specify)	
30	What the distance from you home to this facility		
31	Means of transport you usually use to come to this facility		

**Thank you so much**

**Appendix 2: QUESTIONNAIRE FOR HIV CLINIC STAFF**

**Section A: Introduction and informed consent**

Good Morning/Good afternoon Sir/Madam. I am Tumuhairwe Juliet a post graduate student from Makerere University pursuing a Master of Science in PRH and as a requirement for acquisition of this degree; I am supposed to carry out research. I therefore chose to carry out a study of utilization of FP services among the HIV female clients in Kitagata hospital. I would like to request you to participate in this research by being a respondent and offer me truthful and honest information. participation is voluntary and information will be kept confidential. The information you will give will be used to derive conclusions and generate recommendations for the MOH, DHO, SHM, HIV providers to improve health service delivery

Do you have any questions now before we begin?

I start asking the questions now 1) Yes 2) No (if no end the interview)

If yes signature/thumb print of the interviewee

Signature ..... Date.....

**SECTION B: Background information**

Name of Hospital..... Interview number.....

Name of the interviewer..... Post of interviewee.....

Duration of the service in the post..... Date of interview.....

<b>SECTION C :Tick the most appropriate and where required fill in the space provided</b>			
<b>No</b>	<b>Qn</b>	<b>Response</b>	<b>Comments</b>
1	What is your job designation		
2	What is your age		
3	For how long have you been in this profession		
4	For how long have you worked in this clinic		
5	Are there FP services provided in the clinic	1)yes 2)no	
6	If FP services are provided in the HIV clinic, which FP service are they(Tick all that apply)	1)Condoms 2)Pills 3)Depo provera 4)Implants	

		5)IUD 6)FP Counseling 7)Referral for FP 8)Others(specify)	
7	If some FP services are not provided in the HIV clinic, what could be the reasons why they are not provided(tick all that apply)	1)unavailability of FP commodities 2)creates more work load 3)FP is not promoted by other staff within HIV clinic 4)No space for storing FP commodities 5)Existence of FP units elsewhere 6)Others(specify)	
8	Do you sometimes experience stock out of FP commodities	1)Yes 2)No 3) I don't know	
9	During this year when was the last time you had a stock out of FP commodities	1)1 month ago 2)3 months ago 3)More than 3 months ago 4)Others(specify)	
10	Have you ever received any training on FP	1)Yes 2)No	
11	If you received FP training, at what level of your work career was it	1)Pre service 2)In-service	
12	If you received any formal training on FP ,please list some of the topics	1)FP methods 2)Benefits of FP 3)Challenges of FP 4)Relationship between FP and HIV 5)Others(specify)	
13	Do health workers ever discuss FP during continuous professional development sessions in the HIV clinic	1)Yes 2)No	
14	If FP is discussed in continuous development sessions, when was the last time you had one	1)1 week ago 1)2 weeks ago 3)4 weeks ago 4)More than 4 weeks ago 5)Others(specify)	
15	Are there HIV health education talks	1)Yes 2)No	

	held with HIV clients in the clinic		
16	If yes, how frequent are FP messages discussed	1)Weekly 2)After every 2 weeks 3)After every 3 weeks 4)Others(specify)	
17	Are there instances that you would not recommend FP to HIV clients	1)Yes 2)N o	
18	Which kind of clients would you recommend FP	1)Non ART 2)ART 3)Others(specify)	
19	For a client on ARVs which FP method would you recommend her to use	1)Condoms 2)Pills 3)Depo provera 4)Implants 5)IUD 6)Others(specify)	
20	Why would you recommend the FP methods mentioned to clients on ARVs	1)Pill burden 2)Side effects 3)Poor compliance 4)Others(specify)	
21	Does HIV clinic have any job aids,	1)Yes 2)No	
22	If the HIV clinic has the FP job aids which ones are used in provision of services	1)Flip books 2)Family planning fact sheets 3)Quick reference charts 4)Screening checklists for FP intimation 5)Others(specify)	
23	If referrals are done do you think clients go to referral sites for FP services	1)Yes 2)No 3)I don't know	
24	If clients go to referral sites for FP ,have you ever received any feedback that shows that they got FP services	1)Yes 2)No 3)I don't know	
25	In case they don't go to referral sites for FP services, what could be the reasons (tick all that apply)	1)Stigma 2)Fees for FP services 3)Inconvenience of movement 4) No privacy 5)Others(specify)	
26	In your own opinion, what makes some clients not to use FP methods (tick all that apply)	1)Misconceptions 2)Side effects 3)Desire for children 4)Lack of pattern	

		approval 5)Others(specify)	
27	What could be the challenges faced by the service providers that complicate the provision of FP services to HIV clients	1)lack of knowledge on FP 2)minimal counseling space 3)non availability of FP commodities 4)Poor attitude 5)Lack of space 6)Others(specify)	
28	How do you think integration of FP into HIV care system can be done		

Thank you so much

**Appendix 3: QUESTIONNAIRE FOR SENIOR HOSPITAL MANAGERS**

**Section A: Introduction and informed consent**

Good Morning/Good afternoon Sir/Madam. I am Tumuhairwe Juliet. i won a grant for FHRC(Family health reaserch center Makerere school of public health)and one of my assignments is to carry out research. I therefore chose to carry out a study of utilization of FP services among the HIV female clients in Kitagata hospital. I would like to request you to participate in this research by being a respondent and offer me truthful and honest information.participation is voluntary and information will be kept confidential. The information you will give will be used to derive conclusions and generate recommendations for the MOH, DHO.SHM, HIV providers to improve health service delivery

Do you have any questions now before we begin?

I start asking the questions now 1) Yes 2) No (if no end the interview)

If yes signature/thumb print of the interviewee

Signature ..... Date.....

**SECTION B: BACKGROUND INFORMATION**

Name of Hospital..... Interview number.....

Name of the interviewer..... Post of interviewee.....

Duration of the service in the post..... Data of interview.....

<b>SECTION C: Tick the most appropriate and where required fill in the space provided</b>			
<b>No</b>	<b>Qn</b>	<b>Response</b>	<b>Comments</b>
1	Are there FP services provided in the clinic	1)yes 2)no	
2	If FP services are provided in the HIV clinic,which FP service are they (Tick all that apply)	1)Condoms 2)Pills 3)Depo provera 4)Implants 5)IUD 6)FP Counseling 7)Referral for FP 8)Others(specify	



3	If some FP services are not provided in the HIV clinic, what could be the reasons why they are not provided(tick all that apply)	1)Unavailability of FP commodities 2)Creates more work load 3)FP is not promoted by other staff within HIV clinic 4)No space for storing FP commodities 5)Existence of FP units elsewhere 6)Others(specify)	
4	If there are some FP services not provided in the HIV clinic are there any plans to have them in place	1)yes 2)no 3)i don't know	
5	If plans to have FP services in the HIV clinic exist, what FP service Do you intend to start	1)Condoms 2)Pills 3)Depo provera 4)Implants 5)IUD 6)Others(specify)	
6	When do you intend to have FP services mentioned in the HIV clinic	1)With in 1 Month 2)With in 2 months 3)Others(specify)	
7	Do you sometimes experience stock out of FP commodities	1)Yes 2)No 3) I don't know	
8	During this year, when was the last time you had stock outs of FP commodities in the HIV clinic	1)Last 1 month 2)Last 2 months 3)Others(specify)	
9	What could be the plans that the hospital management has in place to minimize FP commodity stock outs	1)Collaborate with FP clinic 2)Have FP records in HIV care 3)Train a staff on HIV clinic on FP commodity quantification 4)Others(specify)	
10	Looking at the staffing structure of the hospital, is there any staff that has been allocated to be responsible for FP services among HIV clients	1)Yes 2)No 3)N/A 4)I don't know	
11	If there is no staff charged with responsibility for FP services	1)storage is managed by the staff	

	among HIV clients, how are FP commodities managed for HIV clients in the clinic	responsible for other medicines 2)Distribution of commodities is done by HIV counselors 3)Suppliers are brought from hospital FP clinic 4)Others(specify)	
12	During budgeting meetings, does the management consider FP commodities	1)Yes 2)No 3)I don't know	
13	Is there any staff working in the clinic with formal training on FP	1)yes 2)No 3)I don't know	
14	If yes, who of these working in the clinic had pre-service FP training (tick all that apply and give the number trained)	1)Medical Officers 2)Clinical Officers 3)HIV Counselors 4)Dispenser 5)Nurses 6)Midwives 7)Others(specify)	
15	Among the staff that had formal FP training, who of them has had in-service FP training (tick all that apply and give the number)	1)Medical Officers 2)Clinical Officers 3)HIV Counselors 4)Dispenser 5)Nurses 6)Midwives 7)Others(specify)	
16	Do health workers ever discuss FP during continuous professional development sessions in the HIV clinic	1)yes 2)no	
17	If FP is discussed in continuous development sessions, when was the last time you had it	1)3 week ago 2)2 weeks ago 3)4 weeks ago 4)More than 4 weeks ago 5)Others(specify)	
18	What could be the challenges faced by the service providers that complicate the provision of FP service to HIV clients	1)lack of knowledge of FP 2)minimal counseling space 3)non availability of FP commodities 4)Poor attitude	

		5)Lack of space 6)others(specify)	
19	In your own opinion, what do you think makes some HIV clients not to use FP method (tick all that apply)	1)Misconceptions 2)Side effects 3)Desire for children 4)Lack of pattern approval 5)Others(specify)	
20	How do you think integration of FP into HIV care system can be done		

**Thank you so much**

#### Appendix 4: SERVICE AVAILABILITY CHECK LIST

No	Description	Item	Yes	No	Remarks
1	Clients health talks carried out including FP	Health education attendance register			
		Health education work plans			
2	Availability	HIV counseling room			
	Provides audio-privacy				
	Provides visual privacy				
3	Availability of FP commodities	Condoms		If No, stock out days	
		Depo-provera			
		COCs			
		POPs			
4	Availability of FP IEC materials	Counseling flip charts			
		Quick reference charts			
		Family planning fact sheets			
		COCs initiation screening checklists			
		Progestin-only injectables initiation screening checklist			
		IUD initiation screening checklist			
		Pregnancy checklists			
5	Referral of HIV clients for FP services not available in HIV clinic	Referral form available			
6	Follow-up of referred HIV clients	Returned completed referral slip			