CONTRACEPTIVE UTILISATION AND ASSOCIATED FACTORS AMONG HIV POSITIVE WOMEN IN MULAGO ISS CLINIC

BY;

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MAY, 2009
DECLARATION

I hereby declare that all the work in this dissertation is original and has not been submitted for another degree in this or any other university or institution of higher learning.

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DEDICATION

I dedicate this book to my Dad Dr. Tibajjuka A Beneth, Mum Nakyanzi Teopista and my husband Dr. Byarugaba J Hannington for the loving support and care they have given me while writing this thesis.
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I wish to extend my sincere gratitude to the following people for all the assistance and support that they have rendered me to make this work a success. To all of you thanks very much and may the Lord reward you abundantly.

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ABSTRACT

Introduction: Although HIV prevalence in Uganda has reduced from over 30% in the early 1980s to 6.4% in 2006, many people still suffer from HIV and many more are still getting infected with the disease. For the unborn child, spread through MTCT is still the main route of transmission. However despite this, the Contraceptive Prevalence Rate is still low (23.7%) and has not increased over the years. Contraceptive use is important in the prevention of pregnancy and considering the increased risks associated with pregnancy in HIV, HIV positive women should be utilizing contraceptive.

Objective: The study aimed at determining the contraceptive utilization among HIV positive women in Mulago ISS clinic and the associate factors.

Methodology: A cross sectional study was carried out at the Mulago ISS clinic in Kampala district. Systematic sampling was used to select women to participate in the study. A total of 330 women who meet the inclusion criteria were interviewed using an interviewer administered questionnaire between February and March 2009. Qualitative data was collected using FGDs. Data was then analyzed using SPSS 12. Logistic regression was used for the quantitative data. Qualitative data was analyzed according to the emerging themes.

Results: From the study, Contraceptive Prevalence Rate among all the women in the study was 60% and 70% among the married compared to 48% among the unmarried. The most commonly used methods included the male condom (41.4%), Injectables (38.9%)
and Pills (13.69%). Among the factors associated with contraceptive utilization included intention to have children (OR=57.50, CI: 7.09-46.23) and marital status (OR= 5.61, CI: 2.14-14.73). Duration on ARV was found to be confounding the relationship between Contraceptive utilization and intention to have children in the future (43.9%). Desire for children was found to be highest among those who were newly married. In addition, discontinuation of contraceptives was mainly because of the side effects associated with the different contraceptive methods.

**Conclusion:** Women with HIV infection like other women may wish to plan pregnancy, limit their family or avoid pregnancy. It is therefore important to take into consideration their desires in order for them to make informed reproductive choices especially concerning use of contraceptives. More still, those who do not wish to have any more children should be encouraged to consider more long term methods like male and female sterilization and stick to consistent and correct condom use.
ACRONYMS

AIC  AIDS Information Center
AIDS  Acquired Immune Deficiency Syndrome
ANC  Antenatal Care
ART  Antiretroviral therapy
FBC  Family Based Care
FGDs  Focus Group Discussions
FP  Family Planning
HIV  Human Immuno-deficiency Virus
KI  Key Informants
MTCT  Mother to Child Transmission
PMTCT  Prevention of Mother to Child Transmission
UDHS  Uganda Demographic Health Survey
UHSBS  Uganda HIV/AIDS Sero-Behavioral Survey
UHSR  Uganda HIV Status Report
VCT  Voluntary Counseling and Testing
OPERATIONAL DEFINITIONS

**Contraceptive Utilization** - Use of any modern or traditional method by women to delay or avoid pregnancy for the past 30 days

**Modern methods** - Female and male Sterilization, Pills, IUD, Injectables, Implants, Male condom, female condom and LAM intentional for contraception (UDHS-2006)

**Traditional methods** - Periodic abstinence, withdrawal, (UDHS-2006)

**Fertility preferences** - Desire to have a child (ren)
CHAPTER ONE: BACKGROUND

1.0 Introduction

According to estimates from the global AIDS epidemic report, around 30.8 million adults and 2 million children were living with HIV at the end of 2007. Of these 67.8% were from Africa (UNAIDS 2008).

In Uganda, the HIV/AIDS epidemic has been contained effectively. Programmes for the Prevention- of- mother- to –child- transmission (PMTCT), Voluntary Counseling and Testing (VCT) and antiretroviral therapy (ART) were successfully introduced in various districts in the country. The HIV prevalence however has stagnated at between 6-7% for the last few years and in some areas HIV is thought to be on the rise again which is an issue of concern (AVERT Uganda, 2006).

In addition results from the Uganda HIV/AIDS Sero-Behavioral Survey conducted in 2004-05 showed almost 17,000 men and women aged 15-49 had a prevalence rate of 7.1%. This alarming figure indicates that majority of those who are infected with HIV/AIDS are in reproductive age. Analysis by gender done by the AIDS Information Center showed a higher HIV prevalence in females at 21.2% than in males at 14.2%, (AIC annual report 2004). If the highest proportion of people with HIV is women in the reproductive age group then there is a high risk of transmission of HIV through MTCT considering they are the child bearers. They stand chances of passing on HIV infection to
their unborn children once they conceive either during pregnancy, at delivery or during breast feeding.

Uganda ranks 8th in the world with a population growth rate of 3.4%. This high population growth rate also means that increasingly more children are being born. This therefore means that for the HIV infected women, the chances of passing on infection to their children are higher considering the high population momentum.

Although, knowledge on Family Planning is nearly universal, with 97 percent of all women and 98 percent of all men aged 15-49 having heard of at least one method of family planning. Modern methods are more widely known than traditional methods. However despite this, the Contraceptive Prevalence Rate is still low (23.7%) and has not increased over the last 10 years. Among the reasons for low contraceptive use include the number of children, inaccessibility, and low income, HIV status of the woman or husband, disclosure, marital status and many others. The current contraceptive use is higher among sexually active unmarried women (54%) than among the married (24%) and in turn among all women (20%). The commonest method of contraception used in Uganda is the Injectables followed by pills and the rhythm (UDHS 2006).

Contraceptive use is important because it prevents pregnancy and in turn prevents Mother to Child Transmission of HIV, reduces opportunistic infection in case the mother is using a barrier method, and prevents the reduction of the mother’s immunity and exposure to
risks of pregnancy. In case of using barrier methods like condoms may prevent re-infection among partners which leads to development of HIV resistant strains.

This study therefore aimed at finding out how often women who are HIV positive utilize contraceptives (Ever use), their knowledge on importance of using the contraceptives and their fertility preferences especially once they have access to various services that increase their hope of having a better quality life.
CHAPTER TWO: LITERATURE REVIEW

2.1 Overview of HIV in Uganda

The 2004/05 National HIV/AIDS Sero-behavior survey by the Ministry of Health Surveillance Unit estimated about 915,400 adults and children were living with HIV/AIDS in 2005. Prevalence among adults aged 15-49 years was estimated at 6.4%, 0.7% among children less than 5 years, and 5.8% among those aged 50-59. The Ministry of Health estimated 132,500 new infections in 2005 alone. Another study carried out by the Ministry of Health in 2006 showed that HIV prevalence in Uganda may be rising again; at best it has reached a plateau where the number of new HIV infections matches the number of AIDS-related deaths. The study also explained the theories as to why this may be happening, including the government’s shift towards abstinence-based prevention programs, and a general complacency or ‘AIDS-fatigue’. It has been suggested that antiretroviral drugs have changed the perception of AIDS from a death sentence to a treatable, manageable disease; which may have reduced the fear surrounding HIV, and in turn have led to an increase in risky behavior.

If this is the case then women can have a normal life as any other which includes having children and raising their families. Women with HIV however may have challenges living a normal life because of the stigma surrounding them and their reproductive lives. Considering that women are more infected than the men, and yet they are the child bearers this poses a great risk of increased transmission of HIV/AIDS through mother to child transmission once they get pregnant. If women could access and utilize
contraception to prevent pregnancy, then the chances of MTCT of HIV would be reduced.

2.1.1 Contraceptive Prevalence

According to the 2006 Uganda Demographic health Survey, knowledge on family planning has remained consistently high in Uganda over the past 5 years with 97% of all women 15-49 having heard at least one method of contraception. From the UDHS findings, 52% of currently married women have ever used a family planning method at least once in their life time. And the most commonly used methods were the injectables, pills and the rhythm method among the married women. The male condom is by far the most commonly used method among the sexually active but not married.

The UDHS results however showed that contraceptive prevalence rate was only 23.7% including both modern (18%) and traditional contraceptive methods (5.7%). The unmet need for family planning services was 41%. This means therefore many women who would have been able to delay or avoid a pregnancy are not able to and therefore end up having unintended pregnancies.

A study carried out in Lesotho on Desire for children and unmet need for contraception among HIV positive women showed that HIV positive women who had learned of their status had slightly lower desire for children. The study also showed that of the HIV positive women, 38.7% intended to have a child. This study also revealed that the unmet need for contraception was higher among the HIV positive (31.3%) women than among the HIV negative women (44.3%). In addition, the study found that only 6.3% of the positive women were using condoms and therefore this contraception was not contributing much to the prevention of transmission of HIV.
In another study carried out by the African DITRAME project, contraceptive use of HIV positive women was found to be 39% and the factors that were significantly related to contraceptive use were marital status and the level of education. This same study showed that the indices of further pregnancy was 16.5 per 100 women years at risk and 50% of the pregnancies were unplanned and one third terminated by abortion and the significant determinants of pregnancy were death of the previous child and cessation of post partum abstinence. From this study it was clear that HIV infected women like any other women may wish to plan their pregnancies and that HIV infection does not in any way change their desire for children.

2.1.2 Associated Factors

Demographic factors

The age of an expectant mother determines if they will seek ANC services because of the fear and stigma attached to adolescent pregnancy from the community. These young teen therefore do not seek medical help and in addition they do not have enough resources to meet the health provider’s fee and transportation costs if they were required. (Nakazzi 2002)

Educational levels also have an influence on the woman’s health seeking behavior and therefore those that have continuously been educated about the importance of going to the health facility when they are pregnant and its importance will always try to access medical services. This means that once they deliver from a health facility the chances
that a woman will be exposed to the various methods of family planning by the health service provider is high (Krista Maynard Robinson 2002)

**Social Factors**

There was evidence of association between contraceptive use and being employed or a student (vs. unemployed); fewer sex partners; type of last sex partner; having talked to last partner about condom use and having ever been pregnant (MacPhail et al, 2007). Contraceptive use among adolescent women is significantly associated with both employment and educational status. Interestingly, women were more likely to use contraception when reporting a single partner in the last 12 months, when reporting a main partner and when reporting increased sexual activity in the past month. This indicates that young women are considering the use of contraceptives only once they are involved in long-term, regular relationships. There remains, however, a need to offer contraceptive services to young women who are intermittently sexually active in less stable types of relationships.

There is association between monogamy and non-utilization of contraception. However, women in polygamous marriages were more likely not to use contraception when they were older than 35 years, had 4 or more living children, had no male child, had 3 or more female children, or lived in rural areas. There is also association between non-utilization of contraception and number of male children (Audu, S et al, 2006)
Clinical factors

ART was associated with an increase in fertility desire, but was not associated with an increase in fertility (Marissa Maier et al, 2008). Women with HIV and on ART feel healthy and therefore feel that they can have a normal healthy life thus the increase in the fertility desire. In some centers however, this has been associated with increase in pregnancy rates especially for women who wish to have children. In addition however, women also have fears of using contraceptives because of the side effects associated with the different methods. Nearly 60% of subjects discontinued the OC by 6 months. Most subjects reported no changes in headaches, weight, moodiness, and sexual satisfaction during the first 3 months of OC use. Subjects with any complaints, especially those with increased headaches or moodiness, were more likely to discontinue the OC prematurely. Side effects are absent or mild among most OC users, but women with complaints are more likely to discontinue (Westhoff, S. et al, 2007). However a study carried out amongst young people in University in Uganda found that after controlling for education and ever use of contraceptives, having worries increased the likelihood of having side effects (Byamugisha, 2007). This could mean that women who are HIV positive may have more worries which probably pre disposes them to experiencing certain side effects.

Reproductive factors

Attitudes towards child-bearing and changes in sexual and contraceptive practices among women is affected by their ability to make decisions concerning their reproductive health and rights (Mussawar shah, 2003). Better-off women who want significantly fewer children than did moderately or extremely poor women are more likely to approve of
family planning (93% vs. 87–91%) and were more likely to believe their spouses approved. Better off women have higher odds of using modern contraceptives which are more effective than do extremely poor women. In addition, those who wanted two or fewer children had higher odds of using a modern method (Juan Schoemaker, 2005)
2.1 Problem Statement

According to James L. Chen et al 2001, being infected with HIV does not come close to eliminating individuals’ desires and intentions to have children.

In Uganda, the estimated number of children age 0-14 living with HIV in 2005 was 110 per 1000 (UNICEF- Uganda statistics 2005). Children born with HIV in Uganda face various challenges. In addition to the above the population growth rate is very high at 3.4% (UDHS 2006) and the fertility rate is 6.7 which means that on average women give birth to 7 children in their whole reproductive life span. Further still, contraceptive prevalence rate is very low at 23%. All these coupled together mean that the likelihood of increasing number of children born to HIV infected women, increased morbidity, infant and child mortality and burden on the health system is high.

While recent studies have shown that the maternal transmission of HIV can be reduced to about 2%, the possibility of vertical transmission still exists. HIV positive women, although it is there right, are continuing to conceive and yet there are various problems attach to pregnancy most especially amongst HIV positive women. In Uganda, those who are mostly infected by HIV are the women in reproductive age and also have limited access to care. This therefore hinders their visits for ANC to reduce the likelihood of transmission to the newborns and the risks of pregnancy. If they do not utilize contraceptives, they are likely to conceive and be exposed to the various risks like Mother to Child Transmission of HIV, sexually transmitted infections in case the mother is not using a barrier method, re-infection among partners which leads to development of
HIV resistant strains and reduction of the mother’s immunity and exposure to risks of pregnancy.

2.2 Justification

The Government policy and strategy on PMTCT focuses on VCT, ART for PMTCT, infant feeding, supportive interventions for mothers and infants and community education. However PMTCT is still only benefiting a small fraction of HIV positive pregnant mothers and has hardly made any impact on infection rates among infants born to HIV positive mothers.

In addition, the Millennium Development Goals 5 and 6 look at the improvement of maternal health and elimination of HIV respectively. Among the strategies to improve the maternal health include the use of contraceptives to encourage child spacing and therefore reduce the complication of pregnancy. Contraceptive use, most especially among HIV infected women would be of great importance in the control of pregnancy. This is because HIV pre-disposes infected women to various health risks that could affect both the mother and the newborn (WHO). Dual protection (Use of a barrier method for example condoms to prevent infections and another more effective method to prevent pregnancy) is encouraged among HIV positive women.

This study therefore aimed to find out the contraceptive utilization of HIV positive women to check if people really do use the contraceptives and the associated factors. The results of this study will contribute towards the understanding of the extent of contraceptive utilization and how it varies from individual to individual depending on the
various factors. The results will also be used to help improve the management, care and support of HIV positive women to incorporate their desires as women to also bear children and also contribute towards the development of policy towards provision of information to HIV positive women who desire to have children.

2.3 Conceptual framework

The conceptual framework below shows various factors and how they are associated with contraceptive utilization. The factors included the demographic, clinical, reproductive and social factors and this study focused on the association between these factors and the Contraceptive utilization.

CONCEPTUAL FRAMEWORK ON CONTRACEPTIVE UTILIZATION AND ASSOCIATED FACTORS
2.4 **Research Questions**

1. What is the Contraceptive Prevalence Rate among HIV positive women in Mulago ISS clinic?

2. What are the factors associated with contraceptive utilization among HIV positive women in Mulago ISS clinic?

2.5 **Objectives of the study**

*General objectives:*  
To determine the contraceptive utilization and associated factors among HIV positive women in Mulago ISS clinic

*Specific Objectives:*  
1. To determine the Contraceptive Prevalence Rate among HIV positive women in Mulago ISS clinic  
2. To establish the factors associated with contraceptive utilization among HIV positive women in Mulago ISS clinic
CHAPTER THREE: METHODOLOGY

INTRODUCTION

This chapter describes the methods that were used to carry out this study focusing on the study design, setting, population, eligibility criteria, sample size estimation, variables, the data collection management and analysis, quality control and ethics.

3.1 Study design

The study was a descriptive and analytical cross-sectional study carried out from March to April 2009. It collected both qualitative and quantitative data.

3.2 Study setting

The study was carried out in Mulago- ISS Clinic (ISS) located on Mulago upper hill. The clinic provides free services for patients for routine testing and counseling services, provides Family Based Care (FBC), comprehensive HIV/AIDS prevention, treatment and care interventions and training healthcare providers and medical students in the effective provision of routine HIV testing and counseling, basic HIV/AIDS care and ART. The clinic sees over 250 patients daily and of these over 90% are women. The clinic also has a family planning clinic which sees on average 50 women per month. Family planning is a service integrated in the HIV/AIDS clinic. Therefore women are informed of the free service and encouraged to attend to it if they do require the services. This site was suitable for this particular study because it dealt with HIV positive women of all ages and has a family planning clinic.
3.3 Population

Target population
All HIV positive women in Mulago Hospital

Accessible population
All HIV positive women attending Mulago- ISS clinic from February – April 2009

Study population
All HIV positive women attending Mulago- ISS clinic from February – April 2009 who meet the selection criteria

3.4 Eligibility criteria

3.4.1 Inclusion
Women aged 15-49 years, confirmed HIV positive, are attending the ISS clinic from January– March 2009 who had given informed consent.

3.4.2 Exclusion
Those that are mentally disturbed, severely ill, had reached menopause and had a hysterectomy were excluded.
3.5 Sampling procedures

On a daily basis the clinic attends to 200 patients. Considering the expected sample size of 330 respondents, systematic sampling was used to identify respondents. The first person was identified using random sampling technique. The fish bowl method was used to randomly select the first number out of the 10 numbers. Then one woman was selected of every 10 women who come to the clinic until the sample was obtained.

To avoid bias of selecting from the family planning clinic, respondents were interviewed in the morning before they attend to the clinic.

For the FGDs, the respondents were purposively selected and FGDs were carried out until there was saturation of information.

3.6 Sample size estimation

Descriptive sample size

The research center has a population of 800 enrolled HIV positive women. The sample was taken from this population using the following formulae.

\[ N = \left( \frac{Z_{1-\alpha}}{\delta} \right)^2 \times P \times (1-P) \]

Kish and Leslie formula used for the descriptive study

Using 95% confidence interval (1-\(\alpha\)), the maximum error allowed or statistical significance (\(\alpha\)) is 0.05. If \(Z\alpha\) is the value of the standard normal deviate for a two sided \(\alpha\), \(Z\alpha=1.96\).

Width of the interval = 10%

Value of population proportion (P) = 30%

\[ = (1.96/5)^2 \times 30(100-30) \]
Analytical sample size

\[ N = \frac{Z_{(1-\alpha/2)} \sqrt{2 \hat{\pi}_1 (1-\hat{\pi}_1) - Z_\beta \sqrt{\hat{\pi}_1(1-\hat{\pi}_1) + \hat{\pi}_2(1-\hat{\pi}_2)}}}{\hat{\pi}_1 - \hat{\pi}_2} \]

Effect measure = 30% (0.30) is the expected difference in utilization between the two groups

\[ \hat{\pi}_1 = 38.6 \text{ (Proportion of women who want no more children) UDHS 2006} \]
\[ \hat{\pi}_2 = 68.6 \text{ (Proportion of women who want more children) UDHS 2006} \]

\[ Z_\beta \text{ standard normal value corresponding to 1-Power of study (\beta = 0.2) = -0.84} \]

Alpha = 0.05

\[ N = 12 \]

Therefore the sample size that was used was the descriptive sample size of 323 respondents adding seven more respondents for missing information therefore a total of 330 respondents was seen.

3.7 Measurements

Independent Variable;

- **Demographic characteristics;** age, marital status, education levels, occupation and religion
- **Reproductive;** number of children, access to facility
- **Social factors;** disclosure, decision making powers, occupation, number of partners, income levels
- **Clinical factors;** ART status, duration on ART
**Dependent variable;** Contraceptive Utilization (Use of any modern or traditional method by women to delay or avoid pregnancy for the past 30 days) the time period of 30 days was used to minimize on the recall bias.

### 3.8 Data collection and management

The participants were interviewed using an interviewer administered questionnaire. The questionnaire was translated and back translated to ensure that information could actually be collected from respondents who do not speak English. Focus Group Discussions were held of 10 women each who were attending the clinic in order to get more in-depth information from these patients. The FGDs were divided into 2 by age (<25 and 25 <) Oral consent was obtained from the FGD participants. During the FGDs a moderator was used to steer the discussion and a skilled note taker to take the notes. In addition a tape recorder was used to record all the information obtained during the discussion.

Two Focus Group Discussions (FGDs) of 10 HIV positive women who were attending the clinic were also carried out to get more detailed information about the use and perceptions towards contraceptives and their fertility desires.

The participants were recruited after fulfilling inclusion and exclusion criteria that were contained in an eligibility form.

Questionnaires were cross checked at the end of each day to ensure correctness and completeness of the data and the data was then stored and a back up made. The data was
entered into EPI-DATA, cleaned, coded and also double entered to minimize entry errors. There after, it was exported to SPSS 12.0 for analysis.

3.9 Data Analysis

3.9.1 Univariate analysis

Numerical data was described using means, medians, standard deviations, range and was displayed using graphs, pie charts and histograms.

The categorical data was analyzed using Chi square test or Fischer’s exact test, and variables with p value of 0.05 or less were declared significant. Odds ratio was the measure of association and confidence intervals (95% CI) was be reported.

Calculation of Contraceptive Prevalence Rate:

Number of women who are using any one method of contraceptive X 100
Total number of respondents (15-49)

Contraceptive Prevalence Rate was over a period of 30 days.

3.9.2 Bivariate analysis

Odds Ratio was used to measure association between the predictor variables and contraceptive utilization. The 95% confidence intervals was also computed, chi square or fisher’s exact test was used to assess the association. The level of significance was 5% for all the tests. For independent variables with more than two levels, logistic regression was carried out.
3.9.3 Multivariate analysis

Multivariate analysis was used to identify the independent predictors and subsequently to assess for interaction and confounding. Factors with p-values $\leq 0.2$ were considered for multivariate analysis. Interaction was assessed using the chunk test and when there was no interaction then assessment for confounding was done.

Testing for interaction was done by forming interaction terms with the main predictors. The difference in the $-2$ LL of the full model and reduced model was done to show if there was interaction (The difference in the $-2$LL was not significant if chi-square p-value $>0.05$).

Testing for confounding was done by getting the difference in the odds ratios for variables that were not interacting.

Qualitative data was transcribed and then emerging themes were looked for to enable analysis. The results were then triangulated into quantitative data for final reporting.

3.10 Quality Control

The questionnaire was translated to local language (Luganda) and back translated for purposes of getting information from those who did not understand the English language.
The instruments that were to be used during the study (Questionnaire and KI guide) were pre-tested before the study commenced. Research assistants who were recruited to help in the interviews using the questionnaire were trained on how to carry out the data collection.
A skilled moderator and note taker were used during the FGDs and a recorder was also used to capture all the data that was given.
The Principal Investigator also ensured that she was present at the site and also cross checked all questionnaires for completeness and correctness. There after all the filled in collection instruments were kept under key and lock to ensure safety.
Double entry was also done to minimize error during entry of data.

3.11 Ethical Considerations

Permission to carry out this study was sought from the Clinical Epidemiology unit, Faculty of Medicine Research and Ethics committee and the Mulago ISS administration.
In addition, each participant was assured of confidentiality, informed consent was also obtained from the respondents who participated in answering of the interviewer administered questionnaire and oral consent was obtained for those who participated in the Focus Group Discussions. More still one interview was carried out at a time in a separate room.
In addition, women who were found to be at risk of pregnancy and also those who showed desire not to have children but were not using contraceptives were referred to the Mulago ISS Family Planning Clinic for counseling.
3.12 Dissemination

The study findings will be disseminated to the Makerere University Clinical Epidemiology Unit, Makerere University Faculty of medicine’s sir Albert Cook Library, and Makerere University School of graduate studies and to peer review journals and to the Mulago- ISS Clinic.
CHAPTER FOUR: FINDINGS

4.0 CHARACTERISTICS OF PARTICIPANTS

4.1 DEMOGRAPHIC CHARACTERISTICS

Age

The age of the respondents was normally distributed with a standard deviation of 6.3 years, mean age of 30.6 years.

Figure 4.1: Age distribution for respondents
Table 4.1: Demographic characteristics of respondents

<table>
<thead>
<tr>
<th>Variable</th>
<th>Frequency (330)</th>
<th>Percent (100)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Education</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tertiary</td>
<td>11</td>
<td>3.3</td>
</tr>
<tr>
<td>Secondary</td>
<td>116</td>
<td>35.2</td>
</tr>
<tr>
<td>Primary</td>
<td>175</td>
<td>53.0</td>
</tr>
<tr>
<td>Never</td>
<td>28</td>
<td>8.5</td>
</tr>
<tr>
<td><strong>Religion</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Catholic</td>
<td>115</td>
<td>34.8</td>
</tr>
<tr>
<td>Protestant</td>
<td>98</td>
<td>29.7</td>
</tr>
<tr>
<td>Moslem</td>
<td>62</td>
<td>18.8</td>
</tr>
<tr>
<td>Other</td>
<td>55</td>
<td>16.7</td>
</tr>
</tbody>
</table>

Majority of the respondents (53%, n =175) have primary level education while only 3.3% (n = 11) had tertiary level of education.

The majority of the respondents were catholic (34.8%, n = 115) followed by protestants (29.7%, n = 98) while the others constituted 16.7%. Among the others were the orthodox, seventh day Adventists and born-again Christians.
Of all the respondents, 53.6 % (n = 177) of the respondents were married and 23.3% (n = 77) were separated. Of all the married respondents, 28.81% (n = 177) had polygamous relationships with 82.4% (n = 51) having two partners.

Table 4.2:  Marital status, nature of marriage and number of partners of the respondents

<table>
<thead>
<tr>
<th>Variables</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Marital status (330)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>36</td>
<td>10.9</td>
</tr>
<tr>
<td>Married</td>
<td>177</td>
<td>53.6</td>
</tr>
<tr>
<td>Separated</td>
<td>77</td>
<td>23.3</td>
</tr>
<tr>
<td>Widowed</td>
<td>40</td>
<td>12.1</td>
</tr>
<tr>
<td><strong>Nature of marriage (177)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monogamous</td>
<td>126</td>
<td>71.2</td>
</tr>
<tr>
<td>Polygamous</td>
<td>51</td>
<td>28.8</td>
</tr>
<tr>
<td><strong>Number of partners (51)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>42</td>
<td>82.4</td>
</tr>
<tr>
<td>2+</td>
<td>9</td>
<td>17.7</td>
</tr>
</tbody>
</table>

4.2 SOCIAL CHARACTERISTICS

Table 4.3:  Social characteristics of the respondents

<table>
<thead>
<tr>
<th>Variables</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Occupation (330)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Professional</td>
<td>24</td>
<td>7.2</td>
</tr>
<tr>
<td>Business</td>
<td>176</td>
<td>53.3</td>
</tr>
<tr>
<td>Domestic</td>
<td>114</td>
<td>34.5</td>
</tr>
<tr>
<td>Agriculture</td>
<td>16</td>
<td>4.8</td>
</tr>
<tr>
<td><strong>Source (198)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Government hospitals</td>
<td>22</td>
<td>11.1</td>
</tr>
<tr>
<td>FP Clinics</td>
<td>93</td>
<td>47</td>
</tr>
<tr>
<td>Others</td>
<td>83</td>
<td>41.9</td>
</tr>
</tbody>
</table>

Majority of the respondents (53.3%, n = 176) were business women while 34.5% (n = 114) were doing domestic work.
Family Planning Centers were the source for the majority of the respondent’s contraceptive services (47%, n = 93). Only 11.1% (n = 22) of the respondents received from the Government hospitals. Among the others included the outreaches from either government or non-government organization, government community distributors, pharmacies, herbalists and those whose partners were buying the contraceptive.

**Discuss with partner**

**Table 4.4: Respondents who discuss with partners and reasons why**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discuss with partner (198)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>65</td>
<td>32.8</td>
</tr>
<tr>
<td>Yes</td>
<td>133</td>
<td>67.2</td>
</tr>
<tr>
<td>Reasons (65)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disinterested</td>
<td>6</td>
<td>9.2</td>
</tr>
<tr>
<td>No children wanted</td>
<td>45</td>
<td>69.2</td>
</tr>
<tr>
<td>Unstable Relationship</td>
<td>17</td>
<td>26.2</td>
</tr>
</tbody>
</table>

Of the 65 respondents who said they did not discuss with their partners before starting on the method of family planning they were using, 69.2% (n = 45) said it was because both or one of them did not want any more children while 26.2% (n = 17) said they were in unstable relationships and so saw no reason to discuss with the partner.
Price of contraceptives

Of all the respondents who reported that they were using at least one method of contraception in the last 30 days, 36% (n = 72) said they paid to receive the different contraceptive services. The average payment made to receive the contraceptive service was Uganda shillings 2000. The lowest price paid was Uganda shillings 300 while the highest price was Uganda shillings 30,000.

Knowledge about contraceptives

Table 4.5: Ever heard about contraceptives

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>2</td>
<td>0.6</td>
</tr>
<tr>
<td>Yes</td>
<td>328</td>
<td>99.4</td>
</tr>
<tr>
<td>Total</td>
<td>330</td>
<td>100</td>
</tr>
</tbody>
</table>

Majority of the respondents had heard about at least one method of contraceptive (99.4%) only 0.6% had never heard about any contraceptive method. As shown in table 4.6, majority of the respondents had heard about injectables (98.8%, n = 324), pills (97%, n = 318) and the male condom (92.1%, n = 302).
<table>
<thead>
<tr>
<th>Contraceptive method</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Injectables</td>
<td>324</td>
<td>98.8</td>
</tr>
<tr>
<td>Pills</td>
<td>318</td>
<td>97</td>
</tr>
<tr>
<td>Male condom</td>
<td>302</td>
<td>92.1</td>
</tr>
<tr>
<td>Implants</td>
<td>228</td>
<td>69.5</td>
</tr>
<tr>
<td>IUD</td>
<td>197</td>
<td>60.1</td>
</tr>
<tr>
<td>Rhythm method</td>
<td>193</td>
<td>58.8</td>
</tr>
<tr>
<td>Female sterilization</td>
<td>182</td>
<td>55.5</td>
</tr>
<tr>
<td>Lactational Amenorrhea Method</td>
<td>151</td>
<td>46</td>
</tr>
<tr>
<td>Withdrawal</td>
<td>115</td>
<td>35.1</td>
</tr>
<tr>
<td>Male sterilization</td>
<td>79</td>
<td>24.1</td>
</tr>
<tr>
<td>Depo-Provera</td>
<td>71</td>
<td>21.6</td>
</tr>
<tr>
<td>Injectaplan</td>
<td>50</td>
<td>15.2</td>
</tr>
<tr>
<td>Female condom</td>
<td>48</td>
<td>14.6</td>
</tr>
<tr>
<td>Emergency contraception</td>
<td>43</td>
<td>13.1</td>
</tr>
<tr>
<td>Norplant</td>
<td>26</td>
<td>7.9</td>
</tr>
<tr>
<td>Implanon</td>
<td>17</td>
<td>5.2</td>
</tr>
<tr>
<td>Other specify</td>
<td>6</td>
<td>1.8</td>
</tr>
</tbody>
</table>
4.3 CLINICAL CHARACTERISTICS

ARV status and duration on ARVs

Of the 330 respondents, 58.2% (n = 192) were on anti retroviral drugs. Median duration of the respondents on ARVs was at least one year. The minimum duration was 1 week while the longest had been on for over 8 years.

Figure 4.2: Percentage of respondents on ARVs and Duration
4.4 REPRODUCTIVE FACTORS

4.4.1 Number of children

On average those respondents who said they were using any one method of contraception had at least 2 children before starting to use.

Almost half of the respondents (46.1%, n = 152) said they wanted to have children in the future. Those that intended to have children wanted on average two more children. (Minimum 1 and maximum 4)
4.5 PREVALENCE OF CONTRACEPTIVE UTILIZATION

Figure 4.3: Prevalence of contraceptive use in the last 30 days

\[
\text{CPR} = \frac{198}{330} \times 100 = 60\%
\]

The overall prevalence of contraceptive utilization was 60\% (n = 198).
Contraceptive utilization among the married and unmarried

Figure 4.4: Prevalence of contraceptive utilization among the married and unmarried

The prevalence of contraceptive utilization was higher among the married than unmarried (70%, n = 177 and 48%, n = 153 respectively).
From table 4.7 below, the majority of the respondents who were using contraceptives in the last 30 days were using the male condom (41.4%, n = 82) followed by the injectables (38.9%, n = 77) and pills (13.6%, n = 27) as compared only 0.5% who were using the female condom.

Table 4.7:  Prevalence of contraceptive methods used in last 30 days

<table>
<thead>
<tr>
<th>Contraceptive method (198)</th>
<th>Frequencies</th>
<th>Prevalence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male condom</td>
<td>82</td>
<td>41.4</td>
</tr>
<tr>
<td>Injectables</td>
<td>77</td>
<td>38.9</td>
</tr>
<tr>
<td>Pills</td>
<td>27</td>
<td>13.6</td>
</tr>
<tr>
<td>Female sterilization</td>
<td>7</td>
<td>3.5</td>
</tr>
<tr>
<td>Rhythm method</td>
<td>6</td>
<td>3.0</td>
</tr>
<tr>
<td>Withdrawal</td>
<td>5</td>
<td>2.5</td>
</tr>
<tr>
<td>Other specify</td>
<td>5</td>
<td>2.5</td>
</tr>
<tr>
<td>Emergency contraception</td>
<td>2</td>
<td>1.0</td>
</tr>
<tr>
<td>Female condom</td>
<td>1</td>
<td>0.5</td>
</tr>
</tbody>
</table>
### 4.6 ASSOCIATED FACTORS

#### 4.6.1 Bivariate analysis

**Demographic factors**

As shown in the demographic results, association was found between marital status and contraceptive utilization with a p-value=0.00 and CI; 1.59-3.92 as compared to other demographics not significant (results summarized in table 4.8).

**Table 4.8: Association between demographic characteristics and Contraceptive utilization**

<table>
<thead>
<tr>
<th></th>
<th>Utilization</th>
<th>OR</th>
<th>95% C.I</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No (%)</td>
<td>Yes (%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.97</td>
<td>0.94-1.01</td>
<td>0.13</td>
<td></td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tertiary</td>
<td>3(2.3)</td>
<td>8(4.0)</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Secondary</td>
<td>42(31.8)</td>
<td>74(37.4)</td>
<td>0.66</td>
<td>0.17-2.63</td>
</tr>
<tr>
<td>Primary</td>
<td>77(58.3)</td>
<td>98(49.5)</td>
<td>0.48</td>
<td>0.12-1.86</td>
</tr>
<tr>
<td>Never</td>
<td>10(7.6)</td>
<td>18(9.1)</td>
<td>0.68</td>
<td>0.15-3.13</td>
</tr>
<tr>
<td><strong>Marital Status</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>53(40.2)</td>
<td>124(62.6)</td>
<td>2.50</td>
<td>1.59-3.92</td>
</tr>
<tr>
<td>Unmarried</td>
<td>79(59.8)</td>
<td>74(37.4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Religion</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Catholic</td>
<td>41(31.1)</td>
<td>74(37.4)</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Protestant</td>
<td>38(28.8)</td>
<td>60(30.3)</td>
<td>0.87</td>
<td>.50-1.53</td>
</tr>
<tr>
<td>Moslem</td>
<td>27(20.5)</td>
<td>35(17.7)</td>
<td>0.72</td>
<td>0.38-1.35</td>
</tr>
<tr>
<td>Other</td>
<td>26(19.7)</td>
<td>29(14.6)</td>
<td>0.62</td>
<td>0.32-1.19</td>
</tr>
</tbody>
</table>
Social factors

At bivariate level, there was no significant association between contraceptive utilization and occupation.

Table 4.9: Association between social characteristics and contraceptive utilization

<table>
<thead>
<tr>
<th>Occupation (330)</th>
<th>Utilization</th>
<th>OR</th>
<th>95% CI</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional</td>
<td>6(4.5) 18(9.1)</td>
<td>1</td>
<td></td>
<td>0.47</td>
</tr>
<tr>
<td>Business</td>
<td>74(56.1) 102(51.5)</td>
<td>1.80</td>
<td>0.46-7.09</td>
<td>0.40</td>
</tr>
<tr>
<td>Domestic</td>
<td>46(34.8) 68(34.3)</td>
<td>0.83</td>
<td>0.29-2.38</td>
<td>0.72</td>
</tr>
<tr>
<td>Agriculture</td>
<td>6(4.5) 10(5.1)</td>
<td>0.89</td>
<td>0.30-2.61</td>
<td>0.83</td>
</tr>
</tbody>
</table>

Clinical factors

From the clinical results, there was no association found between ARV status and duration on which one had been on ARVs with contraceptive utilization.

Table 4.10: Relationship between ARV status, Duration and contraceptive utilization

<table>
<thead>
<tr>
<th>ARV status</th>
<th>Utilization</th>
<th>OR</th>
<th>95% CI</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>No (%)</td>
<td>Yes (%)</td>
<td>OR</td>
<td>95% CI</td>
</tr>
<tr>
<td>No</td>
<td>52 (39.4)</td>
<td>86 (43.4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>80 (60.6)</td>
<td>112(56.6)</td>
<td>0.85</td>
<td>0.54 - 1.33</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Duration</th>
<th>Utilization</th>
<th>OR</th>
<th>95% CI</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;0.6</td>
<td>23(22.1) 23(29.1)</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.61-2.00</td>
<td>62(59.6) 48(60.8)</td>
<td>0.53</td>
<td>0.20-1.43</td>
<td>0.21</td>
</tr>
<tr>
<td>2.01+</td>
<td>19(18.3) 8(10.1)</td>
<td>0.54</td>
<td>0.22-1.35</td>
<td>0.19</td>
</tr>
</tbody>
</table>
Reproductive factors

There was significant association between intention to have children and use of contraceptives. (OR= 0.621, 95% CI: 0.398-0.970)

Table 4.11: Relationship between intention to have children and contraceptive utilization

<table>
<thead>
<tr>
<th>Intention to have children</th>
<th>Utilization</th>
<th>OR</th>
<th>95% CI</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>No (%) 61</td>
<td>Yes (%) 115</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>No (%) 70</td>
<td>Yes (%) 82</td>
<td>0.621</td>
<td>0.398 - 0.970</td>
</tr>
</tbody>
</table>

4.6.2 Multivariate analysis

Among the variables taken to multivariate analysis included age, marital status, religion, duration on ARVs and intention to have children in the future.

Table 4.12: Final model on association between contraceptive use and predictor variables

<table>
<thead>
<tr>
<th>Predictor Variable</th>
<th>OR</th>
<th>95% CI Lower-Upper</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marital status</td>
<td>5.61</td>
<td>2.14-14.73</td>
<td>0.00</td>
</tr>
<tr>
<td>intention to have children</td>
<td>57.50</td>
<td>7.09-46.23</td>
<td>0.00</td>
</tr>
<tr>
<td>Marital status*intention</td>
<td>8.02</td>
<td>2.23-28.81</td>
<td>0.00</td>
</tr>
<tr>
<td>Less than 6 months</td>
<td>0.56</td>
<td></td>
<td>0.56</td>
</tr>
<tr>
<td>6months – 2years</td>
<td>0.69</td>
<td>0.24-2.00</td>
<td>0.49</td>
</tr>
<tr>
<td>More than 2 years</td>
<td>0.59</td>
<td>0.22-1.56</td>
<td>0.29</td>
</tr>
</tbody>
</table>

Testing for Interaction

Assessment for interaction was done and the main predictor was intention to have children in the future. There was interaction between marital status and intention to have children in the future.
children in the future. In the presence of both variables, intention to have children in the future and being married reduced contraceptive use.

**Assessing for confounding**

The difference in the Odds ratios showed that there was confounding. Duration on which someone had been on ARVs was confounding the relationship between Contraceptive utilization and intention to have children in the future (43.9%)

**Goodness of fit**

Testing of the null hypothesis that the model adequately fits the data was done. The significance of the test had a p-value > 0.05 which showed that the model adequately fits the data.

**Table 4.13: Goodness of fit of the model**

<table>
<thead>
<tr>
<th>Step</th>
<th>Chi-square</th>
<th>df</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2.66</td>
<td>6</td>
<td>0.85</td>
</tr>
</tbody>
</table>
4.7 QUALITATIVE RESULTS

Knowledge on contraceptives

The respondents in the FGDs all said they had heard about contraceptives which they referred to as Family Planning. They said among the methods they had heard about included:

- Condoms
- Pills
- Injectables
- Coil
- Rhythm method
- Tie around the waist
- Tubal-ligation

From the participants, it was noted that modern methods were more widely known than the traditional methods. However on further probing, the participants also knew about breast feeding as a method of family planning. They however said that breastfeeding also had its own complications considering that they were infected. “We are not able to breastfeed for as long as we want because of the chances of passing on the virus to the baby. However, if we do not breastfeed because we do not want to infect our children, then people in the community think we have just refused to feed the babies.”

In addition, knowledge on the various contraceptive methods was higher among the older women than among the younger women. Participants aged 15-29 were not really
knowledgeable about various methods. Especially the long term methods like female sterilization.

**Current use of contraceptives**

Results from the FGD also showed that majority of women used condoms together with either the pill or injection. “*When we go to the family planning clinic, they tell us to use both the method you want for family planning and the condom*”

Some women however said they could not use the condom consistently because their spouses sometimes refused to use it and for others they had not disclosed to their partners about their HIV status.

Contraceptive use was higher among the unmarried women who were sexually active. Further more, the use of any method of contraception was greatly influenced by what their peers were using. The contraceptive use was also determined by the age and marital status of the participant. Those who said they were newly married or had just found a new spouse showed interest in having children and therefore no interest in using contraceptives currently.

**Reasons for using contraceptives**

For those who said they were using contraceptives, among the reasons they gave included: To help space their children and avoid pregnancies close to each other, they did not want any more children because they had enough, for financial reasons (could not afford to take care of the existing children), discordant couples, some were waiting for
their CD4 to increase before they can have children and for weight gain especially those using Depo-Provera.

“I was losing so much weight and my friend told me if I used Depo-Provera I would gain some more weight and it worked”

Reasons for not using contraceptives

Among the reasons given for not using included; the side effects of using the contraceptives, wanting to have children, pregnancy, still breast feeding, alone and not sexually active and just married.

Among the side effects given by the respondents included prolonged bleeding, on and off fevers, nausea, headache, abdominal pain, back pain, decrease in sexual desire, delay in conceiving and refusal of the male partners to use family planning.

“You know once you take family planning then you become dry and once you have sex you feel a lot of pain. The desire for sex is just not there”.

Intention to use in the future

By show of hands, only 5 people intended to continue using in the future. Reasons given were similar to those given by those who were using. Similarly, those that did not intend to use contraceptives in the future also sighted reasons sighted by those that were not using. Majority of the participants said the side effects got from the contraceptives were too much for them to handle. “The side effects of using are too much and showing yet I did not tell my husband that I was using family planning so I intend to stop before he
finds out.” “I did not tell my husband because he does not want me to use contraceptives because he wants to have more children yet I have had enough.”

**Source of contraceptives**

Participants noted that the first time they started using, they did not access from the family planning clinic located at the Mulago ISS clinic. They stated that they had accessed from the clinics or drug shops neighboring where they were staying.

However currently, majority of the participants said they were accessing free family planning services from the ISS clinic. They noted however that they have to plan to receive the service when they are coming for other reasons related to their HIV treatment. It is rare for a participant to come just to receive family planning services.

“For me, transport is a big problem and therefore I only access from the family planning clinic when I come for HIV treatment”
CHAPTER FIVE: DISCUSSION

5.1 PREVALENCE OF CONTRACEPTIVE UTILIZATION

This study showed that the prevalence of contraceptive utilization was 60% among all respondents and that the majority of the respondents were either using the male condom, injectables or the pills in the last 30 days. Among the married women, CPR was 70%.

According to the UDHS 2006, CPR was at 19.6% among all women, 24% among the currently married women aged 15-49 who are using any method of family planning as compared to 54% among the sexually unmarried women. There is wide variation in contraception prevalence worldwide ranging from 8% of women aged 15-49 years in western Africa up to 78% in northern Europe (Mitchell et al, 2004). Female sterilization (32%), Intrauterine Device (22%) and the oral contraceptive pill (14%) account for more than two thirds of all contraceptive practice worldwide. In less-developing countries, 70% of contraception users rely on female sterilization and IUD in part because they are advocated by healthcare services as a result of cost effectiveness in terms of pregnancy prevention and service provision.

Difference in the CPR for the different methods could be as a result of the fact that this site actually provides free family planning services which include short and long term methods. In addition, these women do know their HIV status and therefore attach more importance to the use of the male condom. Dual protection through consistent correct condom use and use of any other method of family planning has been advocated to
reduce the risk of unplanned pregnancies, horizontal transmission of HIV infection, and the risk of acquisition of other STIs.

From the study however, women who participated in the FGDs raised issues pertaining to consistent condom use. Majority of women said the partners were not comfortable using condoms all the time and therefore at times refused to use the condoms. Some women reported that they had not disclosed to their partners about their HIV status and feared what would become of them if they suggested condom use to their partners because of their HIV status.

From the results, it is evident that the CPR is higher among the HIV positive women than it is in the general Ugandan population. However the variation in the CPR may also be as a result of the difference in accessibility of the different groups to contraceptive services especially the male condom. As part of many HIV/AIDS programs in the country, availing contraceptive services to HIV positive women is integrated in their programs. Such services may not be frequently availed in the same magnitude to the general population. According to Family Health International, contraceptive use is cost effective for preventing MTCT of HIV.

According to Heard (2003), CPR among the HIV positive women varied depending on the partners HIV status. Use of Emergency Contraceptive for example was 2.1 times more frequent (95% CI: 1.5-2.9) and condom use 5 times more frequent (95% CI: 0.1-0.2) among women with HIV-positive partners as compared with women with HIV-
negative partners which shows that need for contraceptive services is higher among HIV positive women.

5.2 ASSOCIATED FACTORS

Demographic factors

From the bivariate analysis there was a significant association between marital status and contraceptive utilization. Those who are unmarried were 2.5 times more likely to use contraceptives as compared to those who are married.

According to the UDHS (2006) as expected, current contraceptive use is higher among sexually active unmarried women (54%) than among married women (24%) and, in turn, among all women (20%). Unmarried women who are sexually active are afraid of having children and therefore fill the need to use contraceptives to avoid the unintended pregnancy. Another cross sectional study carried out in Kenyatta National Hospital in 2006 on contraceptive use among HIV infected women attending comprehensive care also show association between marital status and contraceptive use.

From the results, although age was shown not to be associated with contraceptive use, other studies have found associations. According to a survey carried out in Lesotho, HIV positive women aged 35 years and above are far more likely to have unmet need for contraceptives compared to younger women. This study although did not find any association between age and contraceptive use acknowledges the fact that contraceptive use increases with increase in age and therefore older women are more likely to use
contraceptives as compared to the young. Difference in the findings could have been as a result of the fact that majority of the respondents were young.

From the qualitative results however, results were similar to those found in the above study. Older women showed more desire to use contraceptives as compared to the younger women because they still had not fulfilled their reproductive desires of having children.

Social factors

From the study results, majority of those who used contraceptive methods accessed them free of charge. According to the 2003 Guttmacher report on public policy, publicly subsidized family planning services in the United States have been shown to have helped women prevent 20 million pregnancies over the last 20 years, nine million of which would have been expected to end in abortion. Contraceptive utilization in many cases is a long time practice and in developing countries like Uganda, subsidizing of contraceptive services would greatly increase the utilization.

Clinical factors

From the study, there was no association between ARV status, duration on ARVs and contraceptive association. At multivariate analysis however duration on ARVs was confounding the relationship between intention to have children in the future and contraceptive utilization. According to Kaida et al (2006), ARV therapy causes clinical improvements that correspond with the changes in the evidence of pregnancy and fertility
among women with HIV infection. These results mean that as individuals with HIV start on ARVs and improve their quality of life the desire to continue living normal reproductive lives increases and therefore causing an increase in the fertility amongst the HIV positive women. Difference in the study results was probably as a result of

**Reproductive factors**

Intention to have children was significantly associated with contraceptive use amongst the respondents. Those who intended to have more children were 0.621 times less likely to use contraceptives than those who did not intend to have children in the future.

A two stage sample survey carried out in Lesotho to find out the desire for children and unmet need for contraception among HIV-positive women showed that a currently married HIV positive woman is almost 14 times more likely than a never married woman to want to have a child controlling for other factors. According to this study also, age played an important role in determining the future intention to have children.

Intention to have children in the future among HIV positive women however is determined by many factors other than marital status.
5.3 STUDY LIMITATIONS

- Consistent and correct use in regard to the different contraceptive methods was not taken into consideration.

- Considering that the interviews took place at the clinic facility there is a possibility that the respondents could have over reported however this was taken care of by probing using different questions and following the questionnaire.

- Temporal relationships in this cross-sectional study could not be established.

- This study did not exclude women who were sexually inactive however the number of women who were sexually inactive was small and therefore did not create any difference in results obtained.
CHAPTER SIX: CONCLUSIONS AND RECOMMENDATIONS

6.1 CONCLUSIONS

- Desire for children among HIV positive women is highest among those who are newly married and those who do not have any children.
- Discontinuation of contraceptive methods like the pill and injectables is high especially because of the side effects
- The Male Condom is the most commonly used method of contraception.
- Among the factors associated with contraceptive utilization included the intention to have children, price of the contraceptives, age, marital status and ARV duration
- Women with HIV infection, like other women, may wish to plan pregnancy, limit their family or avoid pregnancy

6.2 RECOMMENDATIONS

- Health professionals should encourage HIV positive women’s reproductive choices by increasing counseling and appropriate contraception provision at the time of HIV diagnosis and during follow up
- Male involvement should be encouraged especially among HIV positive women and women who are using the condom only should be advised on how to access and use the emergency contraception to prevent unplanned pregnancies
- More permanent methods like male and female sterilization should be encouraged among women who would not want to have any more children. Both methods are effective against unwanted pregnancy and also in terms of cost. Therefore HIV
positive women should be given an alternative of considering sterilization at the
time they give birth

- Counseling on the side effects of the various contraceptive methods should be
taken into account especially at the time of giving these options so that women are
aware and therefore make informed choice which limit discontinuation.
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APPENDIX

A) QUESTIONNAIRE FOR THE STUDY PARTICIPANTS TO DETERMINE THE PREVALENCE OF CONTRACEPTIVE UTILISATION AND ASSOCIATED FACTORS

Please tick or fill where appropriate

Interviewer’s name;
1. Study number ..........................................................

2. Date of Interview .........................................................

3. Patient’s ARV status and duration
...................................................................................................

Participant’s socio-demographic characteristics

4. What is your age? □

5. What is your educational background?

   Tertiary □
   Secondary □
   Primary □
   Never been to school □

6. What is your occupation?

   Professional □
   Clerical □
   Business □
   Manual □
   Domestic □
   Agriculture □
   None □

7. What is your marital status

   Single □
   Married □
   Divorced □
   Separated □
   Widow □
   Widowed □
8. If married, what is the nature of your marriage?

Monogamous [ ]
Polygamous [ ]

9. If polygamous, how many partners do you have?

............................................................................................................................
............................................................................................................................

10. Religion [ ]

Catholic [ ]
Protestant [ ]
Moslem [ ]
Other specify [ ]

Contraceptive Prevalence

11. Have you ever heard of any methods that women can use to avoid pregnancy?

Yes [ ]
No [ ]

12. If yes, which methods of contraception have you heard about?
   a. Female sterilization [ ]
   b. Male sterilization [ ]
   c. Pills [ ]
   d. IUD [ ]
   f. Injectables (Injectaplan [ ] Depo-Provera [ ])
   g. Implants (Norplant [ ] Jadelle [ ] Implanon [ ])
   h. Male condom [ ]
   i. Female condom [ ]
   j. Lactational Amenorrhea Method [ ]
   k. Rhythm method [ ]
   l. Withdrawal [ ]
   m. Emergency contraception [ ]
13. Have you used anything or method to delay or avoid pregnancy in the last 30 days?
Yes [ ]
No [ ]

14. If yes, what method have you been using in the last 30 days? [If no, skip to Qn 34]
   a. Female sterilization [ ]
   b. Male sterilization [ ]
   c. Pills [ ]
   d. IUD [ ]
   f. Injectables (Injectaplan [ ] Depo-Provera [ ])
   g. Implants (Norplant [ ] Jadelle [ ] Implanon [ ]
   h. Male condom [ ]
   i. Female condom [ ]
   j. Lactational Amenorrhea Method [ ]
   k. Rhythm method [ ]
   l. Withdrawal [ ]
   m. Emergency contraception [ ]
   n. Other specify……………………………………..

Associated Factors

15. The last time you obtained the method you are currently using, how much did you pay in total?
   ........................................................................................................

16. Did you first discuss with your partner exactly which method to use?
17. Do you often discuss with your partner issues concerning child birth?
   Yes □
   No □
   Sometimes □

18. If no, why don’t you discuss with your partner about issues concerning child birth?
   …………………………………………………………………………………………………
   …………………………………………………………………………………………………
   …………………………………………………………………………………………………

19. How many children did you have at the time you started using the contraceptives?
   …………………………………………………………………………………………………
   …………………………………………………………………………………………………

20. Where did you obtain the method you are currently using from?
   Government health center □
   Family planning clinic □
   Outreach □
   Government community distributor □
   Other public place specify …………..

21. Who accompanied you?
   Husband/partner □
   Boyfriend □
   Sister/relative/friend □
   No one □
   Other (specify) ……………………………………………………………………………

22. In the last 30 days for how long have you been using the current method without stopping?
   …………………………………………………………………………………………………
   …………………………………………………………………………………………………
23. Where did you obtain the current method when you started using it?

- Government health center □
- Family planning clinic □
- Outreach □
- Government community distributor □
- Other public place specify…………………………

24. When you obtained the current method, were you told about the side effects or problems you might have with the method?

- Yes □
- No □

25. Were you told what to do if you experience any side effects?

- Yes □
- No □

26. Were you told by the health or family planning worker about other methods of family planning that you could use?

- Yes □
- No □

27. In the last 30 days have you visited the hospital for any other reason apart from family planning?

- If yes, why

…………………………………………………………………………………………………………………………

29. Do you intend to continue using contraceptives in the future? [If no skip to 31]

- Yes □
- No □

30. If yes, why do you intend to continue using contraceptives in the future?

…………………………………………………………………………………………………………………………
31. What method do you intend to continue using?
   a. Female sterilization  
   b. Male sterilization  
   c. Pills  
   d. IUD  
   f. Injectables (Injectaplan  Depo-Provera  )
   g. Implants (Norplant  Jadelle  Implanon  )
   h. Male condom  
   i. Female condom  
   j. Lactational Amenorrhea Method  
   k. Rhythm method  
   l. Withdrawal  
   m. Emergency contraception  
   n. Other specify……………………………………………….. 

32. If no, why not?
   ………………………………………………………………………………………………………………………
   ………………………………………………………………………………………………………………………

33. How many more children do you intend to have?
   ………………………………………………………………………………………………………………………
   ………………………………………………………………………………………………………………………

34. If sterilization, were you told that you would not be able to have any children because of the operation?
   Yes  
   No  

35. If not using any contraceptive method currently, what is the reason for not using?
   ………………………………………………………………………………………………………………………
   ………………………………………………………………………………………………………………………

36. Do you intend to use any contraceptive method in the future?
   Yes  
   No  

……..
37. If yes, which method do you intend to use?
   a. Female sterilization  
   b. Male sterilization  
   c. Pills  
   d. IUD  
   f. Injectables (Injectaplan  Depo-Provera  )
   g. Implants ( Norplant  Jadelle  Implanon  )
   h. Male condom  
   i. Female condom  
   j. Lactational Amenorrhea Method  
   k. Rhythm method  
   l. Withdrawal  
   m. Emergency contraception  
   n. Other specify………………………………………………..

38. **Check if woman has children, and then ask** ‘Do you intend to have any more children?’
   Yes  
   No  

39. If yes, how many more children do you intend to have

**THANK YOU FOR YOUR PARTICIPATION**
B) TOPIC GUIDE FOR THE FOCUS GROUP DISCUSSION

1. Have you ever heard of contraceptives?
   ........................................................................................................................................
   ........................................................................................................................................
   ........................................................................................................................................

2. If yes, what are they?
   ........................................................................................................................................
   ........................................................................................................................................
   ........................................................................................................................................

3. Have you ever used contraceptives?
   ........................................................................................................................................
   ........................................................................................................................................

4. If yes, what are the factors that lead to using?
   ........................................................................................................................................

5. If no, what are the factors that hindered use?
   ........................................................................................................................................

6. By show of hands, how many people intend to use contraceptives in the future?
   ........................................................................................................................................

7. Why do you intend to use?
   ........................................................................................................................................

8. For those who do not, why not?
   ........................................................................................................................................
INTRODUCTION

You are being asked to volunteer for the research study named above. This study is for women aged 15-49 years who are HIV positive and attending the Mulago ISS clinic. Before you decide on whether to be in the study, we would like to explain its purpose, and outline your risks and benefits, what is expected of you, and what you can expect from us.

Please ask questions about anything you want to learn more about. Once you have understood the study and agree to take part, you will be asked to sign your name or make your mark on this form. You will be offered a copy to keep.

Before you learn about the study, it is important to know the following:

- It is up to you whether or not you join the contraceptive utilization study. If you decide not to join the study, you can still be in the Focus Group Discussion (FGD).
➢ You may decide not to join this study, or you may choose to leave this study at anytime, without losing the benefits of your regular medical care. If you choose to leave this study, you can still participate in the FGD

PURPOSE OF THE STUDY

The main purpose of the contraceptive utilization study is to find out the prevalence of contraceptive utilization and the factors associated with its use. The study was permitted by the Makerere University, Faculty of medicine ethical board committee and authorities of the clinic.

About 350 participants will be invited to join in the study here in this clinic. The whole study will take about 2 months to finish. If you agree to participate, you will take part once. Results and other research findings collected from participants in the study will be used to solicit support from other donor organization to provide more sensitization and provide contraceptives for women especially those who are HIV positive.

STUDY PROCEDURES

If you agree to participate in the study, the following procedures will occur;

➢ You will participate in an interview with a female research staff member in private room.

➢ You will be asked to participate in only one interview.

➢ During the interview, you will discuss with the interviewer about the factors associated with your use of contraceptives and the interviewer will write down what you say.
POSSIBLE RISKS

During the interview we will ask you some questions about your private life and personal practices regarding product use and your relationships that may cause you to feel embarrassed or uncomfortable.

BENEFITS

You may not get any direct benefit from being in this study however, the information that you provide may help health professionals better understand the factors associated with the contraceptive utilization.

CONFIDENTIALITY

Results of study might be made available if required for legal reasons. However, any information that specifically identifies with you will be protected. Any publication arising from this study will not include any private information about you.

STATEMENT OF CONSENT

I …………………………………………Have been informed about the study procedures, benefits and risks and I agree to participate in the research.

Signature;……………………………………………………………………………………………………

Names of Principal Investigator or Representative

……………………………………………………………………………………………………………………

Signature of Principal Investigator or Representative Date

……………………………………………………………………………………………………………………

Names of Translator (if Participant English or Luganda)

……………………………………………………………………………………………………………………
Signature of Translator

If the participant can not read and or write, a witness should be available when the study procedures are being explained.

Names of Witness (Print)

Signature of Witness Date/ Time

Patient ID;

For any queries or information please do not hesitate to contact the Principal investigator;

Name: Birungi Isabella
Mobile: 0774424340
E-mail: bisabella2003@yahoo.com

Chairman MUREC

P.O.Box 7072 Kampala Uganda
D) PARTICIPANT INFORMED CONSENT DOCUMENT (FOCUS GROUP DISCUSSION)

TITLE: CONTRACEPTIVE UTILISATION AND ASSOCIATED FACTORS AMONG HIV POSITIVE WOMEN IN MULAGO ISS CLINIC

PRINCIPAL INVESTIGATOR: BIRUNGI ISABELLA

DATE: OCTOBER, 2008

INTRODUCTION

You are being asked to volunteer for the research study named above. This study is for women aged 15-49 years who are HIV positive and attending the Mulago ISS clinic. Before you decide on whether to be in the study, we would like to explain its purpose, and outline your risks and benefits, what is expected of you, and what you can expect from us.

This consent form may contain some words that are unfamiliar, please ask questions about anything you want to learn more about. Once you have understood the study and agree to take part, you will be asked to sign your name or make your mark on this form.

You will be offered a copy to keep.

Before you learn about the study, it is important to know the following:
➢ It is up to you whether or not you join the contraceptive utilization study in the Focus Group Discussion (FGD).

➢ You may decide not to join this FGD, or you may choose to leave this study at anytime, without losing the benefits of your regular medical care.

PURPOSE OF THE STUDY

The main purpose of the contraceptive utilization study is to find out the prevalence of contraceptive utilization and the factors associated with its use. The study was permitted by the Makerere University, Faculty of medicine ethical board committee and authorities of the clinic.

2 FGDs will be carried of 10 women each. If you agree to participate, you will take part once. Results and other research findings collected from participants in the study will be used to solicit support for from other donor organization to provide more sensitization and provide contraceptives for women especially those who are HIV positive.

STUDY PROCEDURES

If you agree to participate in the FGD, the following procedures will occur;

➢ You will participate in an interview in a private room with a moderator and a note taker.

➢ You will be asked to participate in only one FDG.

➢ During the FDG, you will discuss with the moderator about the factors associated with your use of contraceptives and a note taker will write down whatever you say and a tape recorder will be used to record all the words as you say them. The tapes will not contain your name or other identified information and the tapes will be destroyed after the research is completed. Therefore confidentiality will be assured.
POSSIBLE RISKS

During the FGD we will ask you some questions about your private lives and personal practices regarding product use and your relationships that may cause you to feel embarrassed or uncomfortable.

BENEFITS

You may not get any direct benefit from being in this study however, the information that you provide will help health professionals better understand the factors associated with the contraceptive utilization.

CONSENT

Your signature on this consent form means that you have received the information about this study and that you agree to be a part of the study.

When you sign this form, it means that you have been explained to the study procedures, and you have been given opportunity to ask questions.

If you agree to participate in the research, write your name and or signature below.

.................................................................

Names of Principal Investigator or Representative

.................................................................

Signature of Principal Investigator or Representative

.................................................................

Date

.................................................................

Names of Translator (if Participant English or Luganda)

.................................................................
Signature of Translator

…………………………………………………………………………………………………………………………

If the participant can not read and or write, a witness should be available when the study procedures are being explained.

…………………………………………………………………………………………………………………………

…………………………………………………………………………………………………………………………

Names of Witness (Print)

…………………………………………………………………………………………………………………………

Signature of Witness                      Date/ Time

…………………………………………………………………………………………………………………………

For any queries or information please do not hesitate to contact the Principal investigator;

Name; Birungi Isabella

Mobile; 0774424340

E-mail; bisabella2003@yahoo.com

Chairman MUREC

P.O.Box 7072 Kampala Uganda

Phone; 256 414 530020