

**UNMET NEED FOR CONTRACEPTION
AMONG HIV-POSITIVE WOMEN ATTENDING
HIV CARE AND TREATMENT SERVICE AT
SPHMMC, ADDIS ABABA, ETHIOPIA.**



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ABSTRACT

BACKGROUND- Ethiopia is one of the nations severely affected by the HIV pandemic with a national adult HIV prevalence of 1.5% with women disproportionately affected than men (1.9% compared to 1.0% in men). Despite its demonstrable contribution, far less attention has been given to prevention of unintended pregnancy as a strategy to PMTCT.

OBJECTIVES- To determine the level and contributing factors of unmet need for contraception among HIV positive women in the ART care unit at SPHMMC.

METHODOLOGY-A facility based cross sectional study was conducted from September 1/2014-November 30/2014. An exit interview of sampled women enrolled at the ART clinic of SPHMMC was done using structured and pretested questionnaire. Descriptive, bivariate, and multivariate methods were used to analyze the level of unmet need and its contributing factors.

RESULTS- The overall unmet need for contraception was 25.1%. The most common reasons for non-use were related to perceived low risk of pregnancy. Unmet need was more common in unmarried women and those who did not discuss about contraception with HIV care provider. Making joint decision on contraceptive utilization with partner and having sero-discordant partner were associated with decreased odds of both overall unmet need and unmet need for dual contraceptive method.

CONCLUSION AND RECOMMENDATIONS- The ART clinic represented one of the missed opportunities to initiate and promote contraceptive use. Appropriate counseling to correct misconceptions and addressing the barriers to contraceptive use could improve contraceptive use. Integration of FP and other RH services with the general ART service can address the reproductive health needs of HIV positive clients. Revising training curriculum to ensure FP/HIV integration are covered in pre-service training is justified.

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LIST OF ABBREVIATIONS

AIDS	Acquired Immune Deficiency Syndrome
ANC	Ante Natal Care
ART	Anti Retro viral Therapy
ARV	Anti Retroviral
EDHS	Ethiopian demographic and health survey
FGA	Family Guidance Association
FP	Family Planning
HAART	Highly Active Anti-Retroviral Therapy
HIV	Human Immune Deficiency Virus
MTCT	Mother to child transmission
NGO	Non-Governmental Organization
OBGYN	Obstetrics and Gynecology
PLWHA	People Living With HIV/ AIDS
PMTCT	Prevention Mother to Child HIV Transmission
RH	Reproductive Health
SPHMMC	St Paul's Hospital Millennium Medical College
SPSS	Statistical package for social sciences
UNAIDS	Joint United Nations Program on HIV/AIDS
UNICEF	United Nations Children's Fund
VCT	Voluntary Counseling and Testing
WHO	World Health Organization

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CHAPTER ONE

1.1 BACKGROUND INFORMATION

The HIV pandemic created an enormous challenge to the survival of mankind worldwide (1). Since the first two cases of HIV infection in Ethiopia were reported in 1984, the disease has spread at an alarming rate. Ethiopia's burden of HIV/AIDS is enormous as it has claimed the lives of millions and has left behind hundreds of thousands of orphans (2), (3). According to the EDHS 2011, the national adult HIV prevalence was 1.5% with women disproportionately infected, 1.9% compared to 1.0% in men (4). The national estimate for the HIV positive pregnant women was 38,404 for the year 2012 (5), and there were an estimated 12,000 new HIV infections among children in the same year (6). The vertical virus transmission from mother to child accounts for more than 90% of pediatric AIDS (1).

Ethiopia has adopted the WHO/UNICEF/UNAIDS 4-pronged PMTCT strategy as a key entry point to HIV care for women, men and families. Addressing all four prongs has potential to interrupt the cycle that leads to MTCT at several points (1).

Studies have shown that adding family planning services to PMTCT programs could almost double the number of child infections averted and nearly quadruple the number of child deaths prevented compared to PMTCT programs without family planning. In addition, a 2006 analysis by Family Health International (FHI) concluded that for the same cost, voluntary family planning services can avert nearly 30% more HIV-positive births-that would have been unintended-than averted by identifying HIV-positive women during their pregnancy and providing nevirapine (7).

Despite its demonstrable contribution, far less attention has been given to prevention of unintended pregnancy as a strategy to PMTCT. There are little research incites and substantive

data is not available on the magnitude of unintended pregnancy and unmet need of contraception among HIV positive woman in Ethiopia.

This study was conducted in St Paul's Hospital Millennium Medical College (SPHMMC) found in Addis Ababa, Ethiopia. It was first called St. Paul's General Specialized hospital since its foundation in 1961 E.C by the Emperor Haileselassie with the help of the German Evangelical Church. As of 2007, it has become a medical college which is currently named St. Paul's Hospital Millennium Medical College and its core services are medical care, teaching and research. The college is peculiar in the country because of its new and integrated modular and hybrid problem-based curriculum. The Hospital has been affiliated to Addis Ababa university medical faculty to train medical students and residents for a long period of time. Considering Ethiopia's extreme need of professionals in OBGYN speciality to achieve Millennium Development Goal (MDG) 4 & 5 the OBGYN department of the college in collaboration with Federal Ministry of Health and Michigan University has initiate OBGYN post graduate training program since July of 2012. There is also an eight storey maternity and children hospital under construction in the compound which is expected to provide state of the art service to the nation as a whole.

1.2 STATEMENT OF THE PROBLEM

The global incidence of HIV infection has stabilized and begun to decline in many countries with generalized epidemics. Almost 50% of pregnant women living with HIV received effective antiretroviral regimens to prevent mother-to-child transmission, spurring the international community to launch the *Global Plan towards the elimination of new HIV infections among children by 2015 and keeping their mothers alive*. What would have been viewed as wildly unrealistic only a few years ago is now a very real possibility (8).

Globally, an estimated 35.3 (32.2–38.8) million people were living with HIV in 2012 and there were 2.3 (1.9–2.7) million new HIV infections globally, showing a 33% decline in the number of new infections from 3.4 (3.1–3.7) million in 2001 (6).

Antiretroviral coverage among pregnant women living with HIV reached 62% in 2012, and the number of children newly infected with HIV in 2012 was 35% lower than in 2009. However, achieving the global goal of reducing the number of children newly infected by 2015 will require similar scale-up of other prevention strategies, including primary HIV prevention for women and access to contraception and other family planning (FP) services (6).

From the early days of the HIV/AIDS epidemic, Ethiopia has shown commitment to prevent its spread and mitigate its impact. During the earlier years, the government adopted a national AIDS policy and developed and implemented several effective strategies. These concerted efforts have yielded encouraging results in reversing the rate of new infections and in mitigating the multi-faceted impacts of the epidemic. In fact, recent reports show that Ethiopia is one of the sub-Saharan countries demonstrating more than a 25% decline in new HIV infections. ANC sentinel surveillance data show that prevalence of new infections among pregnant women 15-24 years of age has declined from 5.6% in 2005, to 3.5% in 2007, and 2.6% in 2011 (9).

While the above progress is a reason for hope and encouragement, the fight against HIV/AIDS is far from over. The problem is still huge as nearly 800,000 are living with HIV, more are orphaned, and the rate of new infections is declining but still high, and possibly expanding to newer population groups and geographic areas (9).

Ethiopia is noted in the 2013 United Nations report on the global AIDS epidemic as one of the 22 priority countries of the global plan towards the elimination of new infections among children by 2015 and keeping their mothers alive. The same report showed Ethiopia is one of the 5 priority countries with generalized epidemics having less than less than 50% of pregnant women living with HIV with antiretroviral medicines to prevent vertical transmission (6).

From a reproductive health- and rights-based perspective, all women should have access to methods that allow them to avoid unintended pregnancies (8). In the context of HIV epidemic, contraception has an additional, yet underappreciated and undervalued, benefit: contraception prevents HIV-positive births (11). However, the unmet need for family planning services among women living with HIV continues to undermine efforts to eliminate new HIV infections among children (6).

In the Glion Call to Action on Family Planning and HIV/AIDS in Women and Children, a four-element strategy was articulated to reduce mother to- child transmission of HIV (MTCT): primary prevention of HIV infection, prevention of unintended pregnancies among HIV-positive women, prevention of HIV transmission from an infected mother to her child, and provision of care and support for HIV infected mothers, their infants, partners and families. While the Glion Call to Action states that all four elements are essential for meeting United Nations General Assembly Special Session (UNGASS) goals, scant programmatic- or policy-related attention has

been paid to the second element¹ of preventing unintended pregnancies among HIV-positive women (12).

Globally, an estimated 80 million (38%) of the 211 million pregnancies each year are unintended (13). According to *World contraceptive use 2011*, the level of unmet family planning among the 1.18 billion women 15–49 years old is an estimated 11% globally. Among the 128 million women (married or in a union) 15–49 years old in sub-Saharan Africa, the estimated unmet need for family planning is more than twice as high, at 25% (14).

The 2011 Ethiopian DHS showed, the contraceptive prevalence rate for all women age 15-49 is 20%. The contraceptive prevalence rate is 29% for currently married women, and 57% for sexually active unmarried women. Twenty-five percent of currently married women have an unmet need for family planning-16% for spacing and 9% for limiting (4).

Contraception offers women, their families, and their communities a variety of benefits. It improves individual, social and economic performance of woman. Among HIV positive women contraceptive utilization has been shown to be a successful and cost effective method to avert HIV positive births by preventing unintended pregnancy (11), (15) (16).

Therefore, it is important to the study the extent of unmet need for contraception among HIV positive women and to understand factors that can lead to unmet need if evidence based strategies to reduce unmet need in this population are to be implemented.

¹The second PMTCT element is described as follows: Unintended pregnancies among HIV-infected women should be prevented. Reproductive health & family planning services should be improved & made widely available to all women, including those with HIV infection, to provide support & appropriate services to avoid unintended pregnancies. Increased availability of counseling & testing services would enable women to find out their serostatus & then obtain essential care & support services, including reproductive health & family planning services, and make informed decisions about their future reproductive lives.

CHAPTER TWO

2.1 LITERATURE REVIEW

Global, regional and national context of HIV/AIDS

The emergence of the HIV epidemic is one of the biggest public health challenges the world has ever seen in recent history. In the last three decades HIV has spread rapidly and affected all sectors of society- young people and adults, men and women, and the rich and the poor (9). Globally, an estimated 35.3 (32.2–38.8) million people were living with HIV in 2012 and there were 2.3 (1.9–2.7) million new HIV infections. The annual number of newly infected children in 2012 was 260 000 (230 000 – 320 000) in low- and middle-income countries (6).

Sub-Saharan Africa, home to 70% of all new HIV infections in 2012, is at the epicenter of the HIV epidemic and continues to carry the full brunt of its health and socioeconomic impact. It remains most severely affected, with nearly 1 in every 20 adults (4.9%) living with HIV and accounting for 69% of the people living with HIV worldwide. HIV prevalence among young women remains more than twice as high as among young men throughout sub-Saharan Africa. More than 90% of the children who acquired HIV infection in 2011 live in sub-Saharan Africa (6), (17).

Ethiopia is among the countries most affected by the HIV epidemic. With an estimated adult prevalence of 1.5%, it has a large number of people living with HIV (approximately 800,000); and about 1 million AIDS orphans (9). The national estimate for the HIV positive pregnant women was 38,404 for the year 2012 (5), and there were an estimated 12,000 new HIV infections among children in the same year (6). The vertical virus transmission from mother to child accounts for more than 90% of pediatric AIDS (1).

Ethiopia is noted in the 2013 United Nations report on the global AIDS epidemic as one of the 22 priority countries of the global plan towards the elimination of new infections among children by 2015 and keeping their mothers alive. The same report showed Ethiopia is one of the 5 priority countries with generalized epidemics having less than less than 50% of pregnant women living with HIV with antiretroviral medicines to prevent vertical transmission (6).

Sexual and reproductive health of women with HIV

Globally, public health and individual health risks have led to reproduction in the context of HIV being a contested area (18). A tension is evident concerning whether to prioritize public health or reproductive rights perspectives when discussing reproduction in HIV positive women. Although some shared ground exists, the two competing perspectives are obvious. In contrast with the public health approach, which consciously directs HIV-positive women toward the use of permanent or temporary methods of avoiding future pregnancies, the approach based on reproductive rights centers around responding to women's desire for reproductive health. This approach is guided by the principle that all women have a right to bear children regardless of their HIV status (19). Thus HIV-infected women, like all women, have the right to make reproductive choices for themselves-they should never be coerced into a particular reproductive decision (20).

Many HIV-infected women are sexually active and increase or resume sexual activity as their health improves whilst on antiretroviral therapy (ART). Antiretroviral therapy and sexual behaviors may be linked through several mechanisms. First, HIV-positive individuals who derive therapeutic benefit from HAART may attain improved quality of life and functional status with the alleviation of physiological, social, and psychological consequences of HIV disease. These gains may be accompanied by increases in sexual risk behaviors among individuals whose illness

had previously inhibited those behaviors. Second, individuals may hold unrealistic beliefs about the impact of ART on disease transmission rates, and thus may perceive the consequences of transmitting HIV as being less serious than in the past. The proven efficacy of HAART in reducing maternal–fetal transmission of HIV may reinforce these beliefs (21), (22).

Being HIV positive modifies but does not remove reproductive desires, and diversity exists in reproductive intentions. Strong desires to experience parenthood, mediated by prevailing social and cultural norms that encouraged childbearing in society more broadly, were reported. Motherhood was an important component of married women’s identity and important for women’s social status. Family, husbands’ and societal expectations for childbearing were important influences on women’s reproductive intentions, for some counterbalancing HIV as a factor discouraging reproduction (18).

A study done in Lesotho showed a considerable proportion of HIV-positive women want to have a child in future (38·7%), which is lower than the figure for HIV-negative women (44·4%). In contrast, the percentage of HIV-positive women wanting a child within the next two years is higher (17·1%) than for HIV-negative women (10·8%) (23).

A study on the impact of antiretroviral therapy on incidence of pregnancy among HIV-Infected women in Sub-Saharan Africa showed the risk of pregnancy appeared to increase continuously with increasing duration of follow-up in women on-ART. In a model examining pregnancy during the overall observation period (combining pre-ART and on-ART periods) adjusted for participant demographic and clinical characteristics, use of ART was associated with an almost 80% increased risk of pregnancy. In the same model, the cumulative risk of pregnancy after 4 years of follow-up among women in the pre-ART group was less than 20%, compared to 33% among women using ART (24). Although this study did not directly assessed the impact of ART

on fertility intentions and sexual activity, it can be used as a proxy indicator suggesting both may increase after ART initiation, as suggested by a cohort of Ugandan adults and a cross-sectional study from South Africa (25), (26).

A cross sectional study done in Ethiopia on utilization of modern contraceptives among HIV positive reproductive age women showed 46% of all participants wanted to have more children (27). However an earlier and similar cross sectional study done to assess determinants of desire to procreate among people living with HIV/AIDS in Ethiopia revealed considerable proportion (66.1%) of PLWHA respondents, (Male 41.7%, and Female 24.4%) have a desire to have children in the future (28).

The decision by women to get pregnant or not is neither simple nor univariate. Studies showed that women with HIV can get pregnant as a result of decreased perceived threat of HIV, decreased HIV symptomatology and to satisfy traditional gender role (29). A study done in South Africa showed 43.8% of HIV positive women had planned pregnancies, the main reasons for doing so were their partner's insistence (45.6%), a strong desire for a child (36.8%), to conceal their HIV status (15.8%) and death of previous child (30). There was evidence that prevention of perinatal transmission programs in combination with ART may alter women and men's attitudes in favor of childbearing (18).

Conversely some HIV positive individuals wished to avoid pregnancy. Fears of partner and infant infection and having a previously infected baby were important factors deterring some individuals from considering having children. There was also strongly perceived community disapproval associated with HIV and reproduction (18), (31). Women expressed fears about the impact of pregnancy and childbirth on their health while some women have doubts about

whether the PMTCT intervention will be effective. More rarely cited as a reason for avoiding pregnancy was the prospect of the child's becoming an orphan (19), (32).

Despite the desire to avoid having children, many women with HIV experience unintended pregnancies. A study done in New Orleans, U.S.A, on a sample of HIV-infected women about their reproductive decision-making showed 88% of the first subsequent pregnancies after HIV diagnosis were unplanned (33). Similarly more than 90 percent of the pregnancies among women enrolled in a Ugandan antiretroviral treatment program were unintended (25). Another study in South Africa on contraceptive practice of women attending ART care showed that of the 130 women who reported pregnancies, 73(56.2%) said that the pregnancies had been unplanned (30).

Contraceptive utilization and PMTCT

One of the targets of the Millennium Development Goals, agreed by all United Nations Member States, is to achieve, by 2015, universal access to reproductive health, including family planning (34). To accelerate progress towards this goal, the Global Plan also aims to reduce the unmet need for family planning to zero by 2015 (35).

Unintended pregnancies have important harmful effects on the survival and well-being of both women and their children. A lower total fertility rate through increased contraceptive use has been shown to reduce by up to 15% the number of mothers dying than would have occurred with no fertility decline (36). In addition, the benefits of family planning include increased family savings and productivity, better prospects for education and employment and improvement in the status of women. Current contraception levels prevent 188 million unintended pregnancies, which results in 112 million fewer abortions, 1.1 million fewer newborns dying and 150 000 fewer mothers dying (15).

For HIV-positive women who do not want to become pregnant, contraception has the added benefit of reducing HIV-positive births and, by extension, the number of children needing HIV-related services. The potential contribution of contraception to preventing HIV-positive births is well established.

One study found that even modest decreases in the number of pregnancies to HIV infected women ranging from 6 percent to 35 percent-could avert HIV-positive births at the same rates as the use of ARVs for PMTCT (37).

Current levels of contraceptive use in all of sub-Saharan Africa are already preventing 173,000 HIV-positive births annually, even though contraception is not widely available in the region. An additional 160,000 HIV positive births could be averted every year if all women in the region who did not wish to get pregnant could get access to contraceptive services (38).

A similar analysis of only the focus countries in the President's Emergency Plan for AIDS Relief (PEPFAR) found that contraception prevents a wide range of HIV-positive births every year—from 178 in Guyana to 120,256 in South Africa (16).

Contraception is also a cost-effective way to avert HIV infections in infants. Dollar for dollar, family planning programs have the potential to prevent nearly 30 percent more HIV-positive births than PMTCT programs that provide prophylaxis with nevirapine (11). In fact modeling studies has demonstrated that the mother-to-child transmission of HIV cannot be eliminated without reducing unintended pregnancies among women living with HIV (39).

Indeed, the prevention of unintended pregnancies among those women living with HIV is one of the WHO four elements of comprehensive approach to prevent mother-to-child transmission of HIV (40).

Dual function contraceptives that simultaneously prevent HIV transmission as well as unwanted pregnancies are considered to be the most appropriate contraceptive method for women living with HIV/AIDS (41), (42). This is especially critical to women who are taking specific regimens of ART or anti TB as effectiveness of hormonal contraceptive is rendered less effective (1).

Contraception can be provided either within the treatment programs or by active referral to routine family planning providers. A study in Uganda found that integration of family planning into HIV and AIDS services appears to offer a lot of benefits. The benefits reported included an increase in family planning uptake by HIV positive women and reduction of stigma among HIV clients as opposed to free standing contraceptive services. It also led to improved discussion of sex and fertility desires between HIV positive women and health care workers who already had an ongoing relationship with clients unlike unfamiliar health facilities where women might fear discrimination (43).

Other studies also showed integration is seen as an important means to preventing HIV infections by enabling HIV positive women to prevent or delay pregnancies through improved access to and availability of contraception eliminating the issue of access and availability as a cause for unmet need for family planning (19).

Possible reasons for unmet need includes low perceived risk of conceiving, insufficient knowledge about contraceptive methods and how to use them, fear of social disapproval, fear of side-effects and health concerns, and women's perceptions of husbands' opposition (15).

A qualitative study in Kenya among HIV positive women of reproductive age reported that main reasons for unmet need for contraception were lack of knowledge on where to get contraception, opposition by male partners and side effects associated with hormonal contraception like Depo-Provera (44).

2.2 SIGNIFICANCE OF THE STUDY

Regardless of their HIV status contraception offers women, their families, and their communities a variety of benefits. By delaying first births, lengthening birth intervals, reducing the total number of children born to a woman, preventing unintended pregnancies, and reducing the need for unsafe abortions, contraception can have a major impact on improving overall maternal and infant health (20).

In the context of HIV epidemic, contraception has an additional, yet underappreciated and undervalued, benefit: contraception prevents HIV-positive births (11). In fact prevention of unintended pregnancy has been one of the WHO four pronged strategy for PMTCT (40).

Ethiopia has adopted the WHO 4-pronged PMTCT strategy as a key entry point to HIV care for women, men and families. The Ethiopian ministry of health ART guidelines do provide guidance on contraceptive counseling for HIV positive women. It also recommends that HIV positive women should be encouraged to use dual protection (1). However, existing practices and knowledge regarding contraceptive use for prevention of unintended pregnancies in HIV positive women is generally unknown.

It is important, therefore, to obtain an accurate understanding of the extent of unmet need for contraception and its contributing factors among HIV positive women. As a matter of fact, no published research study is found on the subject matter in the facility. Therefore, study on this topic is relevant and timely.

Findings from this study will help in revision of ART guidelines to meet contraceptive needs of HIV positive women.

The study will also initiate other studies to be conducted in the area as far as contraceptive utilization among HIV positive women is concerned.

CHAPTER THREE

OBJECTIVES

3.1 GENERAL OBJECTIVE

To assess unmet need for contraception among HIV positive women attending care and treatment in the ART unit of SPHMMC.

3.2 SPECIFIC OBJECTIVES

- To determine level of unmet need for contraception among HIV positive women in the ART unit at SPHMMC.
- To understand factors that can lead to unmet need for contraception among HIV positive women in the ART care unit at SPHMMC.
- To determine the proportion of HIV positive women on HIV care using dual methods of contraception.
- To recommend more study to be done on the subject matter based on the results of this study.

CHAPTER FOUR

METHODOLOGY

4.1 STUDY AREA

The study was conducted in the ART clinic of SPHMMC found in Addis Ababa, Ethiopia. It is, in addition to its major role as a teaching center, a referral hospital with an average of 650 patients and clients visiting the hospital outpatient and emergency department daily.

4.2 STUDY PERIOD

The study was conducted from September 1/2014-November 30/2014 for 3 consecutive months. The data was collected during working hours only.

4.3 STUDY DESIGN

A facility based cross sectional study was conducted through an exit interview of HIV positive reproductive age women enrolled in HIV/AIDS care and treatment at the ART clinic of SPHMMC.

4.4 POPULATIONS

4.4.1 SOURCE POPULATION

The source population were all HIV positive women of reproductive age (15–49 years) attending ART units at SPHMMC.

4.4.2 STUDY POPULATION

The study population were sampled HIV positive women of reproductive age (15–49 years) who are married or in union attending ART clinics and fulfill the inclusion criteria.

4.4.3 INCLUSION AND EXCLUSION CRITERIA

Inclusion criteria:

- HIV positive women who are enrolled in HIV/AIDS care and treatment at time of data collection and are in the reproductive age group (aged between 15-49 years).
- Those who are competent to give informed consent and willing to permit chart review.

Exclusion criteria:

- Women who are seriously ill and unable to give consent.
- Women who are not married or in union.
- HIV positive women who are coming for the first time to the ART clinic.

4.5 SAMPLE SIZE AND SAMPLING PROCEDURE

4.5.1 SAMPLE SIZE

Determination of the sample size was according to a previous study done in Johannesburg, South Africa among HIV positive women, considering the prevalence of unmet need for contraception to be 29% (45). Using a margin of error of 5% ($\alpha = 0.05$) and confidence interval of 95% (standard value of 1.96).

The actual sample size was calculated using a single population proportion formula of:

$$n = \frac{(Z_{\alpha/2})^2 P (1-P)}{d^2} = \frac{(1.96)^2 (0.29) (1-0.29)}{(0.05)^2} = 316$$

Where:

- n=the required sample size
- p=the proportion of unmet need for contraception
- $Z_{\alpha/2}$ =the critical value at 95% confidence level of certainty (1.96)
- d=the margin of error between the sample and the population 5%.

To compensate for non-response rate due to unseen conditions 10% of the sample was added. Finally a total of 348 women were sampled for the study.

4.5.2 SAMPLING PROCEDURE

All HIV positive women of reproductive age enrolled in HIV/AIDS care and treatment who fulfill the inclusion criteria were selected consecutively during the study period until the sample size is fulfilled.

4.6 DATA COLLECTION

An exit interview was conducted during the regular working hours by four trained data collectors using structured and pretested questionnaire that is translated in to Amharic language to obtain information from the respondents after completing their clinic visit. Before starting the interview, the health care provider was informed to request the client to participate in the study.

The tool consists of socio-demographic and socioeconomic characteristics, information on contraceptive utilization, child desire information, discussion of contraceptive options with ART clinic care provider and sexual practices and associated factors. The most recent and standard definition of unmet need published in 2012 by the DHS analytical studies was used (46), see [Annex I](#).

A medical record review to obtain clinical data (WHO stage of disease and CD4 cell count) was also conducted. The principal investigator supervised the data collection activity.

4.7 DATA QUALITY ASSURANCE

To maintain the data quality, a two days training was given to the data collectors and supervisors on the objectives, methods, confidentiality, about pre-test informed consent and other technical aspects of the study before data collection.

The questionnaire was first prepared in English, translated into the local language (Amharic), and then translated back to English. The questionnaire was pretested in 5 percent of the participants a week before the commencement of the main research. Participants who involved in the pretest were excluded in the latter data collection. Completed questionnaire was cross-checked daily for inconsistencies and completeness. Participating clients were interviewed at the end of their clinic visit in a separate and private room where privacy can be ascertained.

4.8 DATA PROCESSING AND ANALYSIS

In preparation for data entry all questionnaires were numbered consecutively. Then data was entered and analyzed using SPSS version 20.0 for windows.

Descriptive analysis such as proportions, percentages, means, and measures of dispersion, tables, and graphs was used to describe the data. Bivariate analysis of socio-demographic, information on family planning given by HIV care provider, past contraceptive use and other possible determinants was included. Logistic regression model was employed to control confounding variables.

4.9 ETHICAL CONSIDERATION

Prior to data collection, the study proposal was submitted to the Institutional Review Board (IRB) and department of Obstetrics and Gynecology of SPHMMC for ethical review and approval. Once a written approval was obtained a copy of the IRB approval letter and the study proposal was submitted to the ART clinic of SPHMMC to obtain permission for data collection.

Privacy and confidentiality of study participants was ensured throughout the study by collecting data in private room and also by using identifiers which are sequential numbers assigned as data collection is conducted and not actual names of participants. All the study participants were reassured that they would be anonymous.

Prior to data collection informed consent was obtained from all participants. Respondents were clearly told about the nature of the study and study participation was voluntary. Participants were free to withdraw their consent at any time during data collection. Respondents were also told that they will not be denied of any service if they didn't take part in the study but they were told that all the information that they give is going to help improve the quality of the service that is given to them.

4.10 STUDY VARIABLES

4.10.1 INDEPENDENT VARIABLES

- Socio demographic characteristics (age, literacy status, income, marital/relationship status, occupation).
- Number of living children.
- Children living with HIV or died because of HIV or related illness.
- Disclosure of HIV infection to partner.
- HIV related variables like duration since HIV diagnosis, recent CD4 count, WHO stage of disease, months since ART started.
- Partner's HIV status.
- Knowledge about MTCT.
- Contraceptive counseling and service given at the ART clinic.

4.10.2 DEPENDENT VARIABLE

- Unmet need for contraceptives.

4.11 OPERATIONAL DEFINITIONS

Unintended pregnancy: a pregnancy that is mistimed or unwanted.

Dual protection: simultaneous prevention of STI/HIV infection and unwanted pregnancy achieved by simultaneous use of two methods, one of which must be a barrier method.

Mistimed pregnancy: pregnancy that was expected but might have occurred earlier than the woman would have liked.

Unwanted pregnancy: pregnancy that occurred when the woman never wanted to become pregnant at all.

Unmet need for contraception: the number of fecund women who are sexually active and want to use contraception to limit or space their birth but are not using any form of contraception, and those currently pregnant/postpartum amenorrheic women whose pregnancy is mistimed or unwanted.

Unmet need for limiting: refers to pregnant women whose pregnancy was unwanted, and fecund women who are neither pregnant nor amenorrheic, who are not using any method of contraception, and who want no more children.

Unmet need for spacing: includes pregnant women whose pregnancy was mistimed and fecund women who are neither pregnant nor amenorrheic, who are not using any method of contraception and say they want to wait two or more years before their next birth.

Total demand for contraception: refers to women with unmet need plus the percentage of currently using contraception (representing “met need”).

Proportion of demand satisfied: percentage of women using contraception divided by the percentage of women with demand for contraception.

Proportion of demand satisfied by modern methods: the percentage of women using modern contraception divided by the percentage of women with demand for contraception.

CHAPTER FIVE

RESULTS

5.1 RESPONSE RATE

In total, 348 eligible women were approached for interview. Nine refused to participate and 5 did not complete the interview. Overall, 334 agreed to participate in the study, giving a response rate of 95.9%. In all, 334 women provided complete information on key background characteristics and were included in the analysis.

5.2 DEMOGRAPHIC AND SOCIO-ECONOMIC CHARACTERISTICS OF STUDY POPULATION

Table 1 summarizes the characteristics of the women who participated in the study. By design, these were women living with HIV who were of reproductive age (15–49 years). The mean age of respondents was 31.3 years (SD $\pm$ 6.2). Approximately, 26 percent of the participants were in the age group of 25 to 29 years. A total of 193 (57.8%) of the study participants were married whereas the rest 141 (42.2%) were living with a man as if married.

Nearly one-quarter of women reported never attending school while only 15.6% reported attending higher education. About 20% of participants were unemployed and 166 (49.7%) reported to have no monthly income. (Table 1).

Table 1: Demographic and socio-economic characteristics of sampled HIV positive women of reproductive age attending ART clinic at SPHMMC, Addis Ababa, Ethiopia, 2015.

Characteristics	Frequency (N)	Percentage (%)
Age (Years)		
15-19	6	1.8
20-24	36	10.8
25-29	88	26.3
30-34	74	22.1
35-39	71	21.3
40-44	41	12.3
45-49	18	5.4
Current Marital Status		
Currently Married	193	57.8
Living with a man	141	42.2
Educational Level		
No education	78	23.4
Primary	71	21.2
Secondary	92	27.5
Technical/Vocational	41	12.3
Higher	52	15.6
Occupation		
Student	21	6.3
Unemployed	69	20.6
Housewife	77	23.0
Daily laborer	37	11.1
Government employee	45	13.5
Private employee	72	21.6
Commercial sex worker	13	3.9
Monthly Income (ETB)		
None	166	49.7
<500	30	9.0
501-1500	70	20.9
1501-2500	38	11.4
>2501	30	9.0

5.3 SEXUAL, REPRODUCTIVE AND HIV/AIDS RELATED

CHARACTERISTICS OF STUDY POPULATION

A total of 112 (33.6%) of the study participants last had sexual intercourse within the past month and approximately 72% of the women reported having been sexually active in the past year (Table 2). Currently married women are more likely to be sexually active in the past month as compared to women living with a man (35.7 % vs. 30.5%).

Table 2: Timing of last sexual activity among sampled HIV positive women of reproductive age attending ART clinic at SPHMMC, Addis Ababa, Ethiopia, 2015.

Population	Last sexual activity				
	<1 week	1 week-1 month	1 month – 12 month	>12 month	Total
Currently married	19 (9.8%)	50 (25.9%)	77 (39.9%)	47 (24.4%)	193
Living with a man	8 (5.7%)	35 (24.8%)	52 (36.9%)	46 (32.6%)	141
All women	27 (8.1%)	85 (25.5%)	129 (38.6%)	93 (27.8%)	334

Among women who reported ever giving birth (n=207) 44.9% did so after discovering their HIV status, 16.5% have a child living with HIV and 13% had lost one or more child to HIV or related illness (Table 3).

Table 4 summarizes the HIV related characteristics of the women who participated in the study. Respondents had been diagnosed with HIV anywhere from one month before the study to 17 years before. Both the median duration since HIV diagnosis and the median duration since the start of care and treatment were 48 months.

Women were also asked whether or not their partner had been tested and if so, if they knew their partner's HIV status. A total of 279 (83.5%) women reported that their partner had been tested, 23 (6.9%) said that their partner had not been tested, and 32 (9.6%) did not know. However, simply being tested is not enough; it is more important to learn the result of the test.

Table 3: Reproductive characteristics of sampled HIV positive women of reproductive age attending ART clinic at SPHMMC, Addis Ababa, Ethiopia, 2015.

Characteristics	Frequency (N)	Percentage (%)
Ever given birth		
Yes	207	62.0
No	127	38.0
Ever used a contraception		
Yes	257	77.0
No	77	23.0
Currently pregnant		
Yes	33	9.9
No	283	84.7
Unsure	18	5.4
Ever had induced abortion		
None	215	64.4
1	81	24.2
≥2	38	11.4
Get abortion service		
At health facility	81	68.1
Outside health facility	38	31.9
Gave birth after discovering HIV status		
Yes	93	44.9
No	114	55.1
Have a child living with HIV		
Yes	34	16.5
No	170	82.1
I don't know	3	1.4
Have child died of HIV or related illness		
Yes	27	13.0
No	179	86.5
I don't know	1	0.5

With regards to their partner's sero-status, 266 (95.3%) were aware of their partner's sero-status (215 (77%) seropositive, 38 (13.6%) sero-negative and 13 (4.7%) did not want to tell). The rest, 13 (4.7%) did not know about their partner's HIV status. More than three fourth (80.5%) of concordance partners had started ART.

Table 4: HIV related characteristics of sampled HIV positive women of reproductive age attending ART clinic at SPHMMC, Addis Ababa, Ethiopia, 2015.

Characteristics	Frequency (N)	Percentage (%)
WHO stage		
Stage I	143	42.8
Stage II	118	35.3
Stage III	45	13.5
Stage IV	28	8.4
Recent CD₄ count (cells/mm³)		
<200	29	8.7
≥200	305	91.3
Disclosed HIV status to partner		
Yes	295	88.3
No	39	11.7
Partner ever tested		
Yes	279	83.5
No	23	6.9
I don't know	32	9.6
Partner HIV status		
Positive	215	77
Negative	38	13.6
I don't want to tell	13	4.7
I don't know	13	4.7
Partner started ART		
Yes	173	80.5
No	36	16.7
I don't know	6	2.8

5.4 PROVISION OF FAMILY PLANNING INFORMATION AND COUNSELING

Desire for children with HIV care providers was discussed in 198 (59.3%) of study participants whereas only 166 (49.7%) discussed the use of a contraceptive method. Figure 1 shows the different types of contraceptive method counseled to study participants.

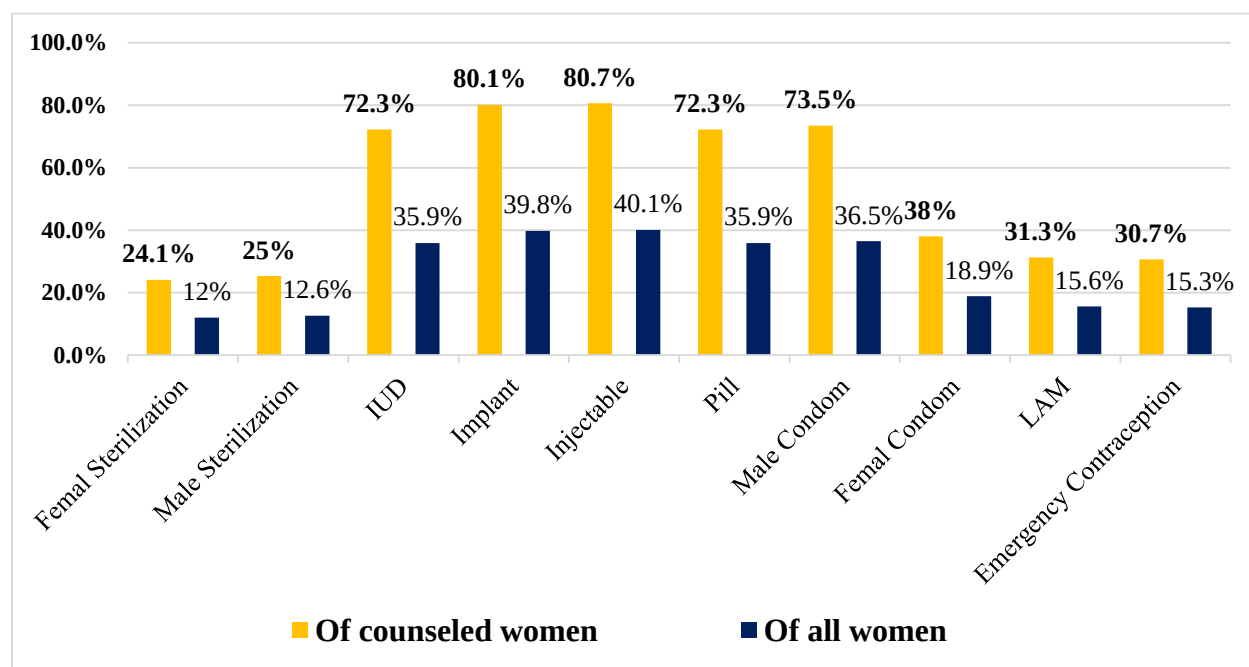


Figure 1: Types of contraceptive methods counseled to sampled HIV positive women of reproductive age attending ART clinic at SPHMMC, Addis Ababa, Ethiopia, 2015.

With regard to MTCT of HIV 295 (88.3%) of the study participants were aware of at least one mode of vertical transmission of which 254 (86.1%) have been told about MTCT during HIV counseling whereas 27 (9.2%) does not remember being provided with such information.

About 80% of respondents mentioned possibility of vertical transmission during labor and delivery.

Among women who stated at least one mode of vertical transmission, 192 (65.1%) knows a method to decrease the risk, of which 130 (67.7%) mentioned using ART whereas only 39 (20.3%) mentioned preventing unintended pregnancy (Table 5).

Table 5: Counseling and knowledge about contraceptive use and MTCT among sampled HIV positive women of reproductive age attending ART clinic at SPHMMC, Addis Ababa, Ethiopia, 2015.

Characteristics	Frequency (N)	Percentage (%)
Can HIV positive women use contraceptives safely		
Yes	161	48.2
No	72	21.6
I don't know	101	30.2
Can HIV be transmitted during pregnancy		
Yes	200	59.9
No	93	27.8
I don't know	41	12.3
Can HIV be transmitted during labor & delivery		
Yes	267	79.9
No	30	9
I don't know	37	11.1
Can HIV be transmitted during breast feeding		
Yes	221	66.2
No	71	21.2
I don't know	42	12.6
Knows one mode of vertical transmission		
Yes	295	88.3
No	39	11.7
Told about MTCT during HIV counseling		
Yes	254	86.1
No	14	4.7
I don't remember	27	9.2
Knows method to decrease risk of MTCT		
Yes	192	65.1
<i>Prevent unintended pregnancy</i>	39	20.3
<i>Using ART</i>	130	67.7
<i>CS delivery</i>	38	19.8
<i>EBF for 6 months</i>	88	45.8
<i>Not breast feeding at all</i>	89	46.4
No	103	34.9

5.5 UNMET NEED AND CONTRACEPTIVE UTILIZATION

Among the 334 respondents 112 (33.5%) reported that they were currently doing something or were using a method of contraception to delay or avoid getting pregnant. Of these, 73 (21.8%) were using to space whereas 39 (11.7%) were using to limit (Figure 2).

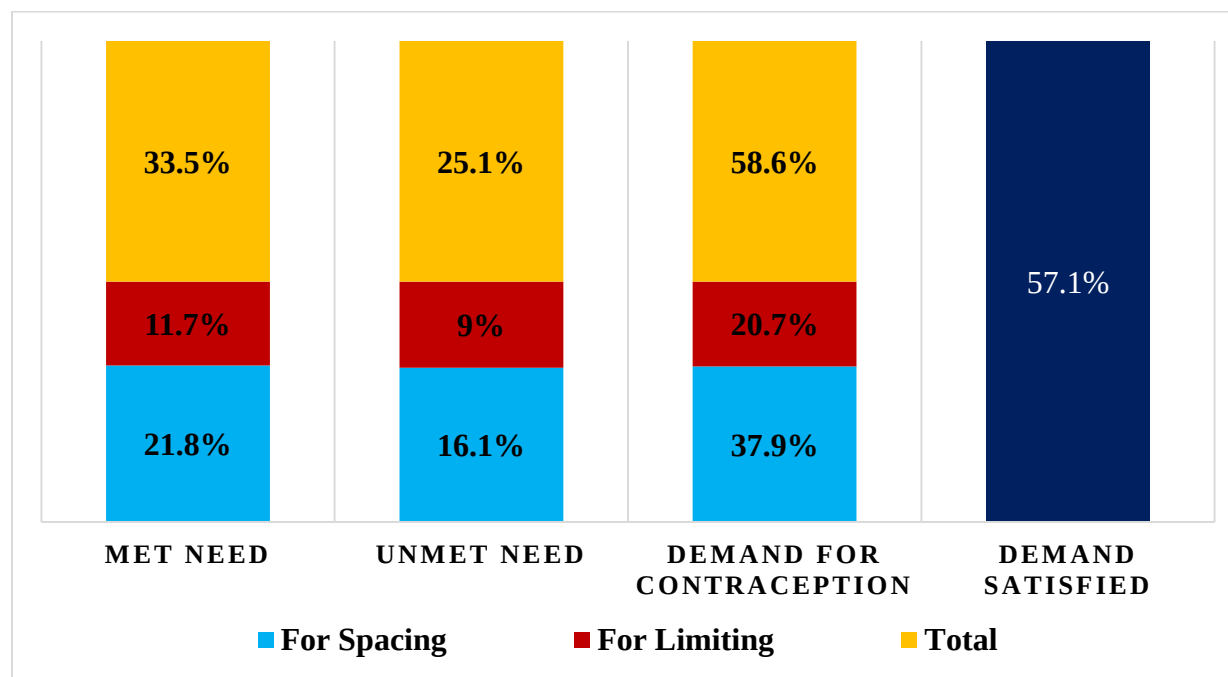


Figure 2: Percentage of met need, unmet need, demand and demand satisfied for contraception among sampled HIV positive women of reproductive age attending ART clinic at SPHMMC, Addis Ababa, Ethiopia, 2015.

The overall unmet need for contraception was 25.1% of which 16.1% was for spacing and 9% for limiting (Figure 3). The total demand for contraception referring to the percentage of women with unmet need plus the percentage of currently using contraception (representing “met need”) was calculated to be 58.6% (37.9% had demand for spacing and 20.7% for limiting).

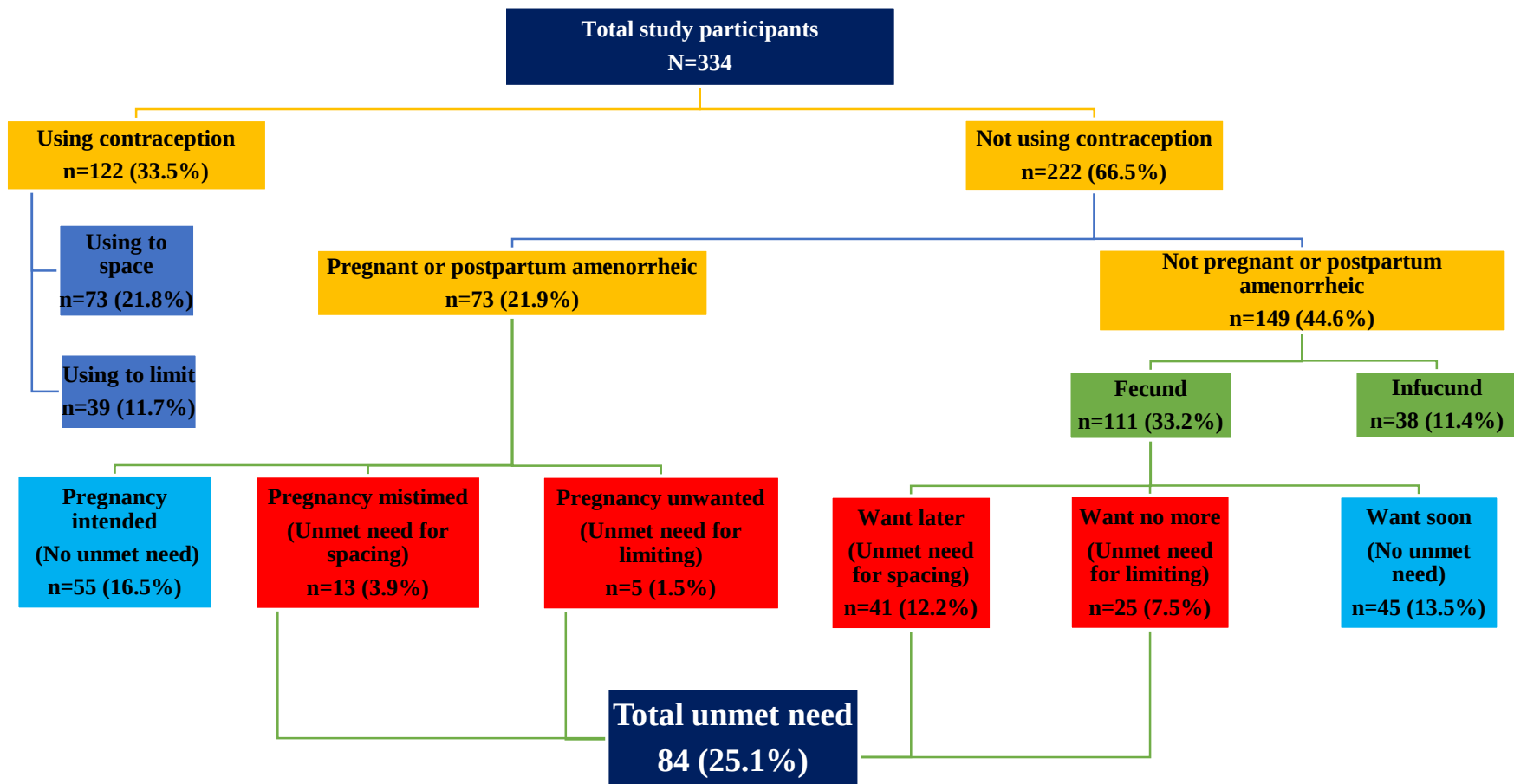


Figure 3: Illustration of calculated unmet need for contraception among sampled HIV positive women of reproductive age attending ART clinic at SPHMMC, Addis Ababa, Ethiopia, 2015.

The proportion of demand satisfied, calculated by dividing the percentage of women using contraception by the percentage of women with demand for contraception, was found to be 57.1% (Figure 2).

The most common reasons for non-use among those with unmet need were exposure related resulting in perceived low risk of pregnancy. Side effect/health concern related to method use was also mention as a reason for non-use (Table 6).

Table 6: Reasons for non-use of a FP method in those with unmet need and HIV positive women of reproductive age attending ART clinic at SPHMMC, Addis Ababa, Ethiopia, 2015.

Reason for non-use	Frequency (N)	Percentage (%)
Perceived low risk of pregnancy		
Infrequent sex	16	19.0
Not married	10	11.9
Up to God/fatalistic	7	8.3
Not having sex	4	4.8
Opposition to use		
Respondent opposed	9	10.7
Religious prohibition	9	10.7
Partner opposed	7	8.3
Method related reasons		
Side effect/health concern	12	14.3
Preferred method not available	6	7.2
Cost too much	4	4.8
Total	84	100

Out of the 112 contraceptive users the most commonly used methods were implants (33%) and injectables (22.3%). Male condoms were utilized as the only contraceptive method in 20.5% and female condoms were not reported by any of the contraceptive users. Utilization of long-acting and permanent methods was very low.

Only 2 (1.8%) women used rhythm method constituting for all the traditional contraceptive methods (Table 7). Thus the proportion of demand satisfied by modern methods, calculated by dividing the percentage of women using modern contraception by the percentage of women with demand for contraception, was found to be 56.1%.

Table 7: Types of contraceptive method among sampled HIV positive women of reproductive age using contraception and attending ART clinic at SPHMMC, Addis Ababa, Ethiopia, 2015.

Contraceptive method	Frequency (N)	Percentage (%)
Female sterilization	3	2.7
IUD	7	6.3
Implant	37	33
Injectable	25	22.3
pill	15	13.4
Male condom	23	20.5
Rhythm method	2	1.8
Total	112	100

Note: If more than one method is used, only the most effective method is considered in this tabulation.

Almost one-third of contraceptive users get the contraception they are using at the family planning unit of the hospital where as only 16.1% get the service at the ART unit of the hospital. However, half the women using contraception preferred to get the service at the ART unit of the hospital and 25.8% mentioned the family planning unit as their preferred site to get a contraceptive method (Table 8).

Table 8: Partner knowledge and support of contraceptive use and experience of integration among sampled HIV positive women of reproductive age using contraception and attending ART clinic at SPHMMC, Addis Ababa, Ethiopia, 2015.

Characteristics	Frequency (N)	Percentage (%)
Partner knows		
Yes	100	89.3
No	10	8.9
I don't know	2	1.8
Partner supports		
Yes	88	78.6
No	9	8
I don't know	15	13.4
Source of contraception		
ART unit of the hospital	18	16.1
Family planning unit of the hospital	33	29.5
Other public/government sector	11	9.8
Private medical sector	10	8.9
FGA/ other NGO	14	12.5
Pharmacy/Shop	26	23.2
Preferred source of contraception		
ART unit of the hospital	56	50.0
Family planning unit of the hospital	29	25.8
Other public/government sector	6	5.4
Private medical sector	5	4.4
FGA/ other NGO	6	5.4
Pharmacy/Shop	10	9.0
FP provider know HIV status		
Yes	47	42.0
No	65	58.0

5.6 DUAL CONTRACEPTIVE USE

Among the 112 contraceptive users 55 (49.1%) were using dual contraceptive method. Thus the unmet need for dual contraception was 42.2% whereas the demand satisfied for dual method was only 28%. About 54% of dual contraceptive users claimed to use dual method to prevent HIV transmission and pregnancy. Almost 30% of dual contraceptive users had challenges for dual contraceptive use of which 43.8% reported opposition from their partner.

Among women who were not using condom 94.6% know a place to get condom but only 62.8% replied they can get condom by themselves (Table 9).

Table 9: Dual method use and associated characteristics among sampled HIV positive women of reproductive age attending ART clinic at SPHMMC, Addis Ababa, Ethiopia, 2015.

Characteristics	Frequency (N)	Percentage (%)
Dual contraceptive use		
Yes	55	49.1
No	57	50.9
Reason to use dual method		
Prevent HIV and pregnancy	30	54.5
Prevent pregnancy	14	25.4
Prevent HIV	3	5.5
Prevent STD	5	9.1
Other	3	5.5
Had challenges for dual use		
Yes	16	29.1
No	39	70.9
Challenges faced		
Opposition from partner	7	43.8
Consistent use difficult	6	37.5
Condoms sometimes unavailable	3	18.7
Know a place to get condom		
Yes	35	94.6
No	2	5.4
Can get condom your self		
Yes	22	62.8
Don't know/unsure	13	37.2

5.7 DIFFERENTIALS IN UNMET NEED FOR CONTRACEPTION

Bivariate and multivariate logistic regression analysis of possible explanatory variables over unmet need for contraception was carried out. The logistic regression model showed that common demographic and socio-economic characteristics like age, education and income were not found to be significantly associated with unmet need for contraception (Table 10).

Likewise, sexual and reproductive characteristics like recent sexual activity, number of living children and the place where the abortion service provided were not associated with unmet need. However, while controlling for possible confounders, those women who have had two or more induced abortions had lower odds of unmet need (AOR=0.25, 95% CI: 0.07-0.87). In addition, those women who are living with a man were more likely to have unmet need compared to those who are married (AOR=1.93, 95% CI: 1.05-3.56).

Unmet need for contraception was also found to be more common among those who have never used contraceptive method (AOR=11.4, 95% CI: 2.51-51.7) and those who did not have a living child (AOR=4.16, 95% CI: 1.08-16.0) (Table 11).

Women who gave birth after discovering their HIV status and women who have a child living with HIV were less likely to have unmet need with (AOR=0.17, 95% CI: 0.05-0.54) and (AOR=0.18, 95% CI: 0.04-0.85) respectively. Nevertheless, losing a child to HIV or related illness was not found to have an impact on unmet need for contraception (Table 11).

Table 10: Association of demographic and socio-economic characteristics with unmet need for contraception among sampled HIV positive women of reproductive age attending ART clinic at SPHMMC, Addis Ababa, Ethiopia, 2015.

Characteristics	Unmet Need		Crude OR (95% CI)	Adjusted OR (95% CI)
	Yes	No		
Age (Years)				
15-19	2	2	1.00	1.00
20-24	22	6	3.67 (0.42-31.7)	3.15 (0.34-28.9)
25-29	22	39	0.56 (0.74-4.29)	0.65 (0.08-5.28)
30-34	14	36	0.39 (0.50-3.03)	0.45 (0.05-3.83)
35-39	17	25	0.68 (0.09-5.30)	0.81 (0.09-6.93)
40-44	7	4	1.75 (0.17-17.7)	2.69 (0.24-30.0)
Current Marital Status				
Currently Married	40	75	1.00	1.00
Living with a man	44	37	2.23 (1.24-3.99)*	1.93 (1.05-3.56)*
Educational Level				
No education	10	23	0.39 (0.14-1.04)	0.38 (0.11-1.27)
Primary	15	29	0.46 (0.18-1.14)	0.60 (0.19-1.85)
Secondary	23	33	0.62 (0.27-1.45)	0.76 (0.26-2.22)
Technical/Vocational	17	10	1.52 (0.54-4.21)	1.72 (0.54-5.48)
Higher	19	17	1.00	1.00
Occupation				
Student	11	4	1.00	1.00
Unemployed	19	20	0.34 (0.09-1.27)	0.41 (0.11-1.55)
Housewife	16	29	0.20 (0.05-0.73)*	0.27 (0.07-1.02)
Daily laborer	6	9	0.24 (0.05-1.13)	0.29 (0.06-1.40)
Government employee	8	14	0.20 (0.05-0.87)*	0.23 (0.05-1.00)
Private employee	22	25	0.32 (0.09-1.15)	0.37 (0.10-1.39)
Commercial sex worker	2	11	0.06 (0.01-0.43)*	0.08 (0.01-0.56)*
Monthly Income (ETB)				
None	35	42	1.00	1.00
<500	10	13	0.92 (0.36-2.36)	1.07 (1.38-3.04)
501-1500	20	34	0.70 (0.34-1.43)	0.85 (0.38-1.88)
1501-2500	12	11	1.30 (0.51-3.32)	1.25 (0.40-3.89)
>2501	7	12	0.70 (0.25-1.97)	0.51 (0.15-1.73)
*Statistically significant, p<0.05.			OR: odds ratio	CI: confidence interval

HIV related characteristics like initiation of ART, WHO stage, CD₄ count, duration since diagnosis and duration since beginning care and treatment service did not have significant independent association with unmet need for contraception (Table 11).

Table 11: Association of sexual and reproductive characteristics with unmet need for contraception among sampled HIV positive women of reproductive age attending ART clinic at SPHMMC, Addis Ababa, Ethiopia, 2015.

Characteristics	Unmet Need		Crude OR (95% CI)	Adjusted OR (95% CI)
	Yes	No		
Last sexual activity				
<1 week	7	11	1.00	1.00
1 week-1 month	25	32	1.22 (0.41-3.62)	1.28 (0.39-4.15)
1 month – 12 month	25	40	0.98 (0.33-2.86)	0.93 (0.29-3.00)
>12 month	27	29	1.46 (0.49-4.32)	1.66 (0.51-5.35)
Ever used a contraception				
Yes	66	110	1.00	1.00
No	18	2	15 (3.37-66.7)*	11.4 (2.51-51.7)*
Number of living children				
None (0)	59	50	3.34 (1.56-7.13)*	3.01 (1.37-6.16)*
1-2	13	28	1.31 (0.51-3.33)	1.21 (0.46-3.15)
≥3	12	34	1.00	1.00
Gave birth after discovering HIV status				
Yes	7	44	0.17 (0.06-0.44)*	0.17 (0.05-0.54)*
No	30	33	1.00	1.00
Have a child living with HIV				
Yes	3	20	0.25 (0.07-0.91)*	0.18 (0.04-0.85)*
No	34	57	1.00	1.00
Have child died of HIV or related illness				
Yes	4	14	0.54 (0.16-1.79)	0.80 (0.20-3.21)
No	33	63	1.00	1.00
Ever had induced abortion				
None	57	68	1.00	1.00
1	22	28	0.93 (0.48-1.81)	0.70 (0.33-1.48)
≥2	5	16	0.37 (0.12-1.08)	0.25 (0.07-0.87)*
Get abortion service				
At health facility	18	31	1.00	1.00
Outside health facility	9	13	1.19 (0.42-3.33)	2.89 (0.28-25.1)
*Statistically significant, p<0.05. OR: odds ratio CI: confidence interval				

Those women who did not discuss about contraception with HIV care provider were 3.64 times (AOR=3.64, 95% CI: 1.30-10.1) more likely to have unmet need compared to those who had such discussion (Table 12).

Women who made a joint decision with their husband/partner on whether or not to use a contraceptive method were found to have less likelihood of unmet need (AOR=0.22, 95% CI: 0.06-0.81).

Disclosure of HIV status to sexual partner was not associated with unmet need. However, those women with sero-discordant partner were less likely to have unmet need (AOR=0.18, 95% CI: 0.06-0.56) compared to those with sero-concordant partner (Table 12).

Table 12: Association of HIV related characteristics with unmet need for contraception among sampled HIV positive women of reproductive age attending ART clinic at SPHMMC, Addis Ababa, Ethiopia, 2015.

Characteristics			Unmet Need		Crude OR (95% CI)	Adjusted OR (95% CI)
			Yes	No		
Months since HIV diagnosis						
	<12		6	10	0.70 (0.23-2.08)	0.92 (0.14-6.11)
	12-60		36	53	0.79 (0.43-1.43)	0.90 (0.30-2.68)
	>60		42	49	1.00	1.00
Months since beginning HIV care and treatment						
	<12		10	15	0.74 (0.29-1.87)	0.89 (0.17-4.58)
	12-60		39	58	0.74 (0.40-1.38)	0.84 (0.27-2.63)
	>60		35	39	1.00	1.00
Started ART						
	Yes		68	99	1.00	1.00
	No		16	13	1.79 (0.81-3.96)	1.85 (0.81-4.21)
WHO stage						
	Stage I		33	50	1.00	1.00
	Stage II		33	38	1.31 (0.69-2.49)	1.40 (0.71-2.74)
	Stage III		10	14	1.08 (0.43-2.72)	1.14 (0.44-2.94)
	Stage IV		8	10	1.21 (0.43-3.39)	1.25 (0.43-3.58)

Table 12 Continued...

Recent CD4 count (cells/mm³)				
<200	6	8	1.00	1.00
≥200	78	104	1.00 (0.33-3.00)	1.04 (0.32-3.35)
HIV care provider talked about desire for children				
Yes	50	80	1.00	1.00
No	24	17	2.26 (1.10-4.61)*	1.29 (0.46-3.56)
I don't remember	10	15	1.06 (0.44-2.55)	0.34 (0.09-1.23)
HIV care provider talked about contraception				
Yes	39	80	1.00	1.00
No	27	18	3.08 (1.51-6.25)*	3.64 (1.30-10.1)*
I don't remember	18	14	2.63 (1.18-5.84)*	3.63 (1.08-12.2)*
Can HIV positive women use contraceptives safely				
Yes	44	70	1.00	1.00
No	13	24	0.86 (0.39-1.87)	0.65 (0.25-1.69)
I don't know	27	18	2.38 (1.17-4.83)*	2.19 (0.88-5.45)
Knows one mode of vertical transmission				
Yes	78	107	1.00	1.00
No	6	5	1.64 (0.48-5.58)	4.58 (0.14-14.9)
Disclosed HIV status to partner				
Yes	72	97	1.00	1.00
No	12	15	1.07 (0.47-2.44)	1.85 (0.43-8.01)
Decision to use or not to use contraception				
Mainly respondent	54	40	1.00	1.00
Mainly husband/partner	8	4	1.48 (0.41-5.26)	0.58 (0.08-4.21)
Joint decision	22	68	0.24 (0.12-0.45)*	0.22 (0.06-0.81)*
Partner HIV status				
Positive	54	59	1.00	1.00
Negative	5	28	0.19 (0.07-0.54)*	0.18 (0.06-0.56)*
I don't know/ don't want to tell	7	5	1.53 (0.46-5.10)	1.46 (0.37-5.74)
Partner started ART				
Yes	38	53	1.00	1.00
No	16	6	3.71 (1.33-10.3)*	2.72 (0.92-7.97)
*Statistically significant, p<0.05.		OR: odds ratio	CI: confidence interval	

5.8 DIFFERENTIALS IN DUAL CONTRACEPTIVE USE

Multivariate logistic regression was done to identify independent predictors of dual contraceptive use. Overall, five variables were found to influence dual contraceptive use after holding other explanatory variables constant (Table 13).

Table 13: Bivariate and multivariate analyses of variables associated with unmet need for dual contraceptive use among sampled HIV positive women of reproductive age attending ART clinic at SPHMMC, Addis Ababa, Ethiopia, 2015.

Characteristics	Unmet Need for dual method		COR (95% CI)	AOR (95% CI)
	Yes	No		
Gave birth after discovering HIV status				
Yes	28	23	0.35 (0.15-0.78)*	0.26 (0.09-0.73)*
No	49	14	1.00	1.00
Have a child living with HIV				
Yes	15	8	0.87 (0.33-2.30)	1.61 (0.46-5.56)
No	62	29	1.00	1.00
Have child died of HIV or related illness				
Yes	11	7	0.71 (0.25-2.02)	1.02 (0.28-3.72)
No	66	30	1.00	1.00
HIV care provider talked about contraception				
Yes	80	39	1.00	1.00
No	38	7	2.64 (1.08-6.46)*	1.75 (0.48-6.34)
I don't remember	23	9	1.24 (0.52-2.94)	0.84 (0.20-3.52)
Counseled on male condom use by ART care provider				
Yes	58	29	1.00	1.00
No	22	10	1.10 (0.46-2.62)	3.03 (0.83-10.9)
Can HIV positive women use contraceptives safely				
Yes	74	40	1.00	1.00
No	29	8	1.95 (0.81-4.68)	1.65 (0.58-4.70)
I don't know	38	7	2.93 (1.20-7.17)*	4.95 (1.46-16.7)*

Table 13 Continued...

Months since beginning HIV care and treatment				
<12	18	7	0.88 (0.32-2.45)	1.37 (0.21-8.91)
12-60	68	29	0.81 (0.41-1.59)	1.59 (0.38-6.62)
>60	55	19	1.00	1.00
Decision to use or not to use contraception				
Mainly respondent	77	17	1.00	1.00
Mainly husband/partner	11	1	2.42 (0.29-20.1)	1.65 (0.18-14.8)
Joint decision	53	37	0.31 (0.16-0.62)*	0.34 (0.16-0.70)*
FP provider know HIV status (disclosed status)				
Yes	19	28	1.00	1.00
No	38	27	2.07 (0.96-4.45)	1.95 (0.44-8.60)
Source of current contraceptive method				
ART unit of the hospital	10	8	1.00	1.00
FP unit of the hospital	13	20	0.52 (0.16-1.66)	0.37 (0.09-1.54)
Other government sector	8	3	2.13 (0.42-10.7)	4.54 (0.51-40.2)
Private medical sector	4	6	0.53 (0.11-2.56)	0.28 (0.03-2.26)
FGA/other NGO	6	8	0.60 (0.14-2.45)	0.57 (0.10-3.06)
Pharmacy/Shop	16	10	1.28 (0.37-4.33)	1.58 (0.35-7.15)
Partner HIV status				
Positive	87	26	1.00	1.00
Negative	12	21	0.17 (0.07-0.39)*	0.16 (0.06-0.41)*
I don't know/don't want to tell	10	2	1.49 (0.30-7.25)	1.35 (0.25-7.13)
Partner supports that you are using				
Yes	39	49	1.00	1.00
No/ I don't know	18	6	3.76 (1.36-10.4)*	3.83 (1.38-10.6)*
*Statistically significant, p<0.05. OR: odds ratio CI: confidence interval				

Giving birth after discovering HIV status decreased the odds of unmet need for dual use (AOR=0.26, 95% CI: 0.09-0.73). However, neither having a child living with HIV nor losing a child to HIV or related illness affected the odds of dual contraceptive use. In addition both disclosure of HIV status to family planning provider and source of current contraceptive method did not affected likelihood of dual contraceptive use (Table 13).

CHAPTER SIX

DISCUSSION

This study has assessed the overall level of unmet need for contraception among sampled HIV positive women of reproductive age attending ART clinic at SPHMMC, Addis Ababa, Ethiopia. It has also attempted to determine possible explanatory factors for unmet need. These data not only serve as a baseline for further comparisons and monitoring but also lay the ground for setting a target level to the reproductive needs of PLWHA.

It is acknowledged that contraceptive utilization has a vital role to play in HIV prevention programs. Removing barriers of contraceptive use would reduce incidence of unplanned pregnancy and thereby avert potential HIV positive births as well as ensure that the health of these women is preserved (40).

The level of unmet need for contraceptive in this study was 25.1% of which 16.1% was for spacing and 9% for limiting. The contraceptive utilization (“met need”) was 33.5% and the total demand for contraception was found to be 58.6% (37.9% had demand for spacing and 20.7% for limiting). The proportion of demand satisfied was calculated to be 57.1%.

Our present study showed a major difference with the 10.6% unmet need for contraception in women of reproductive age in Addis Ababa according to the EDHS 2011 (4). This difference may be due to the difference in the health condition between the specific study population and the general population taken from Addis Ababa. However, there was striking similarity with the unmet need for contraception of 25.3% at the national level with comparable unmet need for spacing higher than unmet need for limiting. This pattern of components of unmet contraceptive need was also seen across all the regions of the country in the EDHS 2011: that there were many

spacers than limiters (4). This implies that HIV positive women's need for contraception follows similar trend of contraceptive utilization for limiting and spacing with the general population. On the other hand, HIV positive women in the present study show higher total demand (58.6) and higher satisfied demand (57.1%) for contraception than women in the general population of the EDHS 2011; 53.9% and 53% respectively (4). This clearly indicates how significant the service of contraception is for HIV positive women (Figure 4).

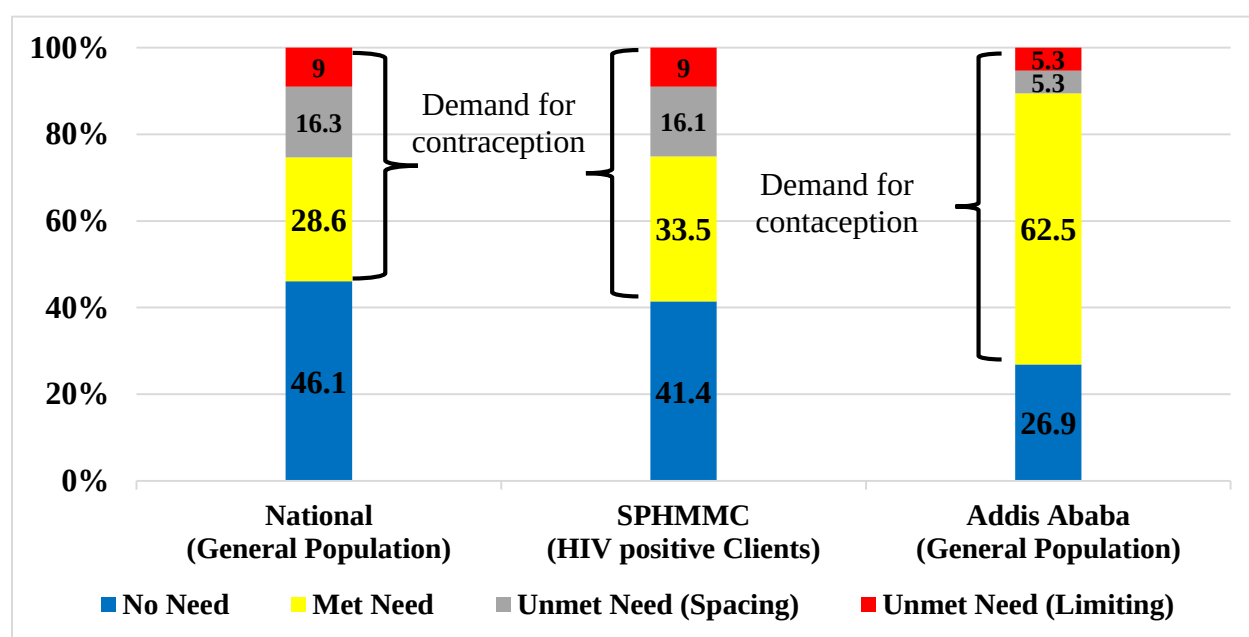


Figure 4: Comparison of demand for contraceptive among the general population in the nation and Addis Ababa with that of sampled HIV positive women of reproductive age attending ART clinic at SPHMMC, Addis Ababa, Ethiopia, 2015.

The 25.1% of unmet contraceptive need in our study is higher than the 16.9% unmet need among HIV positive women in northern Uganda where integration of family planning and HIV services is widely practiced (47). In contrast, the unmet need among HIV positive women was 31.3% in Lesotho and 29 % in South Africa (23), (45). The possible reason for this might be due to geographic and time variation and study design used.

Women living with a man as if married were at increased odds of having unmet contraceptive needs compared to currently married women. This finding was consistent with studies done in Zambia and Swaziland among HIV positive women of reproductive age (48). This result may be explained by the misconception that unmarried women and their partners were particularly guarded against pregnancy because they are not in a formal union. As a matter of fact, the most frequent stated reasons for non-use among women with unmet need were exposure related resulting in perceived low risk of pregnancy. This includes infrequent sexual activity (19.0%) and not being married (11.9%). Appropriate counseling to correct misconceptions and addressing the barriers to contraceptive use could therefore improve contraceptive use.

Those clients who have never used a contraceptive method in the past were 11 times more likely to have unmet need. This suggests that, once a woman has tried a contraceptive method, she is likely to continue using it provided that she has easy access to it. This finding was also seen in a study done in Kinshasa, Democratic Republic of Congo, where having ever used contraceptive strongly predicted current use (AOR=11.57, 95% CI: 2.71-49.48) (49).

Unmet need was also higher among women who did not have a living child compared to those who had 3 or more children. Similarly a study done in South Africa identified the number of living children to significantly affect the desire for pregnancy among HIV positive women (26). However, a study done in Swaziland and Zimbabwe among HIV positive women did not identify the number of living children to significantly affect the unmet need for contraception (48).

Unmet need was found to be lower among women who gave birth after discovering their HIV status and those who have a child living with HIV. This may be explained by fear of transmitting HIV to their child and the potential guilt and responsibility they associate with infecting an infant. Such finding was consistently reiterated in many quantitative and qualitative studies

around the globe (18), (19), (31), (32), (50). This calls for improved counseling and care service for HIV positive women who choose to have children. Remarkably losing a child to HIV or related illness was not associated with unmet need for contraception. Possible explanation for this finding is that some women may have a desire to have another child to replace one they had lost, seemingly as a corrective experience. Qualitative studies done in South Africa and United States on reproductive intentions among HIV positive women identified such behavior after losing a child (18), (30), (50).

This study noted that women who did not discuss about contraception with HIV care provider had increased odds of unmet need compared to those who had such discussion. However, only 166 (49.7%) of the total study participants discussed the use of a contraceptive method with HIV care provider. Furthermore, neither having such discussion nor being counseled on condom utilization at the ART unit of the hospital decreased the odds of unmet need for dual contraceptives. Such lack of association may be due to inappropriate contraceptive counseling in the context of HIV/AIDS.

This finding underlines the importance of integrating family planning and reproductive health services into HIV care and treatment services in order to increase family planning uptake and reduce stigma among HIV positive clients as opposed to free standing contraceptive services. This in turn will allow HIV positive women to maximally utilize the benefits of contraceptive use including PMTCT. It will also create an opportunity to discuss about sex and fertility desires between HIV positive women and health care workers who already had an ongoing relationship with clients unlike unfamiliar health facilities where women might fear discrimination (43).

Women who made joint decision with their partner on whether or not to use a contraceptive method were less likely to have unmet need. This result highlights the benefit of active male involvement in reproductive decision making which can further be enhanced by integration of family planning services with HIV care and treatment services where HIV positive male partners will be visiting routinely compared to stand alone family planning units which are presumed to be visited by female clients only.

Other significantly associated factor with unmet need for contraception was HIV status of partners. Those women who had sero-discordant partners had lower odds of unmet need. Possible explanation for this finding is that sero-discordant couples may choose to use a contraceptive method for fear of horizontal transmission and infecting an uninfected partner. This is also supported by a higher rate of dual contraceptive use among sero-discordant couples (see dual contraceptive use). The same view was also reflected in qualitative studies done in South Africa which showed having sero-discordant partner significantly affected reproductive intention and contraceptive utilization (18), (32).

Dual function contraceptives that simultaneously prevent HIV transmission as well as unwanted pregnancies are considered to be the most appropriate contraceptive method for women living with HIV/AIDS (41), (42). This is especially critical to women who are taking specific regimens of ART or anti TB as hormonal contraceptives are rendered less effective (1). While the Ethiopian PMTCT national guideline advocate for dual contraceptive method to prevent HIV/STI transmission and unintended pregnancies for HIV positive individuals, only 49.1% of contraceptive users in our study reported dual method use. But this finding was higher than that of the study finding (15%) in Johannesburg, South Africa (45).

Almost 30% of dual contraceptive users had challenges for dual contraceptive use of which 43.8% reported opposition from their partner and 18.7% reported condoms were sometimes unavailable. Moreover, among women who were not using condom 94.6% know a place to get condom but only 62.8% replied they can get condom by themselves. Thus, every effort should be made to make diverse contraceptive methods including condoms widely available as contraceptive utilization is an efficient and cost-effective means to prevent HIV transmission and HIV-positive births (11), (37), (38). This strategy can have a significant positive impact on the national HIV/AIDS prevention program.

Similar to the overall unmet need for contraception, unmet need for dual methods was found to be less likely among couples who had sero-discordant result and those who made a joint decision on contraceptive use. In contrast, women who did not have their partner support on contraceptive use higher odds of unmet need for dual method. These findings also indicate how significant male partner involvement is for dual contraceptive use among HIV positive women.

Though women with more than two induced abortions had lower odds of unmet need, the facility it was provided did not significantly affect the unmet need for contraception. Even if this study has not assessed the possibility of time factor, this finding cast doubt into the quality of post-abortion family planning counseling and the service provided presumably to all clients at health facilities.

Initiation of ART, duration since diagnosis of HIV and duration since beginning of HIV care and treatment did not affected the overall unmet need or the unmet need for dual contraceptives. Thus, despite being on follow up for more than 5 years significant proportion of women could not satisfy their family planning needs indicating possible missed opportunity to discuss and commence contraception. This fact is supported by a cross sectional study done in Tigray,

Ethiopia, which showed regular clinic visits during ART follow up provided the opportunity to discuss family planning and other reproductive health matters resulting in increased contraceptive utilization. The study also emphasized such finding may indirectly inform about the effectiveness of HIV prevention program in the hospital (27).

This study also revealed that only 16.1% of contraceptive users get the method they are using at the ART unit of the hospital. In addition, only 42% of contraceptive users had disclosed their HIV status to the health care worker who provided them with the method of contraception. However, half of these women preferred to get family planning service at the ART unit of the hospital. This shows the need to integrate family planning and other reproductive health services with the general ART service and may be one of the solutions to meet the reproductive health care needs of these women.

Even though the numerous advantages of service integration cannot be overstated, due emphasis should also be given to the quality of family planning counseling and the care provided at the family planning of the hospital. This is particularly important as one quarter of contraceptive user mentioned the family planning unit as their preferred site to get a contraceptive method. In fact neither disclosure of HIV status to family planning provider nor source of contraceptive method significantly affected the odds of unmet need for dual method use. This may be due to lack of appropriated contraceptive counseling directed at HIV positive clients by health care providers both at the ART and family planning units of the hospital.

CHAPTER SEVEN

STRENGTH AND LIMITATION OF THE STUDY

7.1 STRENGTH OF THE STUDY

- The most recent and updated algorithm developed by the DHS analytical studies was used to define women with unmet need for contraception. This standard tool will allow to compare the results of this study with other similar studies conducted in different populations and settings.
- A significant number of independent variables were identified from various literatures in order to assess their impact in the outcome of interest.
- Utilization of standard operational definitions allowed comparison of results with global, national and regional findings.
- In addition to the overall unmet contraceptive need special emphasis was given to dual contraception use and its determinants as it is highly recommended in the context of HIV/AIDS.
- Use of logistic regression helped to control possible confounding factors in order to assess the relative effect of independent variables.

7.2 LIMITATIONS OF THE STUDY

- This was a cross sectional study where exposure and outcome are measured at the same point in time. Hence, cause and effect relationship cannot be established.
- The data was self-reported and there was no verification regarding the actual collection of contraceptives. These self-reports may not adequately represent the actual behaviors and intentions of the women.

- As the study includes more sensitive issues, social desirability bias could not be ruled out. Consequently, some women accessing the ART services may report a higher use of condom and other contraceptive method. This can overestimate contraceptive utilization rate. Similarly women may report a birth or current pregnancy as wanted once the child is born. This, on the other hand, can result in an under estimation of the true extent of unwanted births and therefore, unmet need.
- Only currently married women or women living with a man as if married were selected as opposed to all sexually active women.
- The background data collected in this study that may influence contraceptive use are not exhaustive as other socioeconomic factors may also influence contraceptive use.
- The study was done only in ART unit of SPHMMC, a teaching hospital in the capital of the nation. Therefore, the results may not be generalizable to the whole country.

CHAPTER EIGHT

CONCLUSION AND RECOMMENDATION

8.1 CONCLUSION

- Though the overall unmet need for contraception among HIV positive women is similar to the national figure, it is significantly higher than that of the general population in Addis Ababa. This shows broader demand for contraception and the need for new strategies to address the contraceptive need among HIV positive clients.
- HIV positive women's need for contraception follows similar trend of contraceptive utilization with the general population i.e. there were many spacers than limiters.
- Utilization of long-acting and permanent methods was very low.
- Only half of the study participants discussed the use of a contraceptive method with HIV care provider. Lack of such discussion was associated with increased risk of unmet need.
- Those women living with a man as if married and those who have never used a contraceptive method in the past were more likely to have unmet need.
- Unmet need was found to be lower among women who gave birth after discovering their HIV status and those who have a child living with HIV.
- Just close to half of the contraceptive user reported dual method use.
- Having a sero-discordant partner and making a joint decision with partner on contraceptive utilization were associated with decreased odds of both the overall unmet need for contraception and unmet need for dual method.

- Not having a partner support on contraceptive use was associated with unmet need for dual contraception. Active male partner involvement can have a significant impact on contraceptive utilization particularly in the context of HIV/AIDS.
- Significant proportion of women with unmet need gave exposure-related reasons for non-use of a contraceptive method-that is, they believed they were not at risk of getting pregnant and perceived low risk of pregnancy.
- The ART clinic represented one of the missed opportunities to initiate and promote contraceptive use.
- It appears there is lack of appropriate contraceptive counseling directed at HIV positive clients by health care providers both at the ART and family planning unit of the hospital.
- Integration of family planning and other reproductive health services with the general ART service can address the reproductive health needs of HIV positive clients.

8.2 RECOMMENDATIONS

8.2.1 FOR POLICE MAKERS AND STAKE HOLDERS IN THE STUDY AREA

- Police makers and stake holders should embrace family planning as a core technical component of PMTCT and design new strategies to deliver contraceptive methods in the ART units.
- Reviewing of the existing policies, strategies and guideline and developing new integration guideline should be considered.
- Strengthen mechanisms for distributing and disseminating policies and guidelines to ensure they reach implementers at all levels.
- Renewed advocacy for family planning is needed at national, provincial and institutional levels so that family planning will be viewed as a priority by all.

- Increased advocacy and community mobilization are needed to reduce stigma associated with HIV/AIDS, utilization of contraceptive and PMTCT services so that HIV positive clients can make informed choice about their reproductive needs.
- Strengthen mechanisms for commodity procurement and distribution to ensure contraceptive security.

8.2.2 FOR HOSPITAL MANAGERS AND UNIT LEADERS

- Establish mechanism for integrating family planning services into all HIV/AIDS programs, particularly those providing ART, PMTCT and VCT services.
- Integrate elements of HIV/AIDS prevention and care into family planning programs where appropriate and strengthen the capacity of family planning provider to address the reproductive health needs of HIV infected women.
- Ensure FP/HIV integration and relevant technical details are covered in pre-service training curriculum of medical students, health officers, clinical nurses and midwives. This can reduce the impact of staff shortages by producing service providers capable of performing multiple roles.
- Organize training/reorientation to health care providers in the family planning and ART units on how to offer integrated services and screen clients for unmet need for contraception. This training should emphasize dual protection counseling and appropriate contraception in the context of HIV/AIDS.
- Ensure the ART clinic is expanded to adequately cater for integrated service in terms of human resource to manage the workload, space for service provision as well as storage of additional supplies that comes with integration of service.

8.2.3 FOR HEALTH CARE PROVIDERS IN THE UNIT

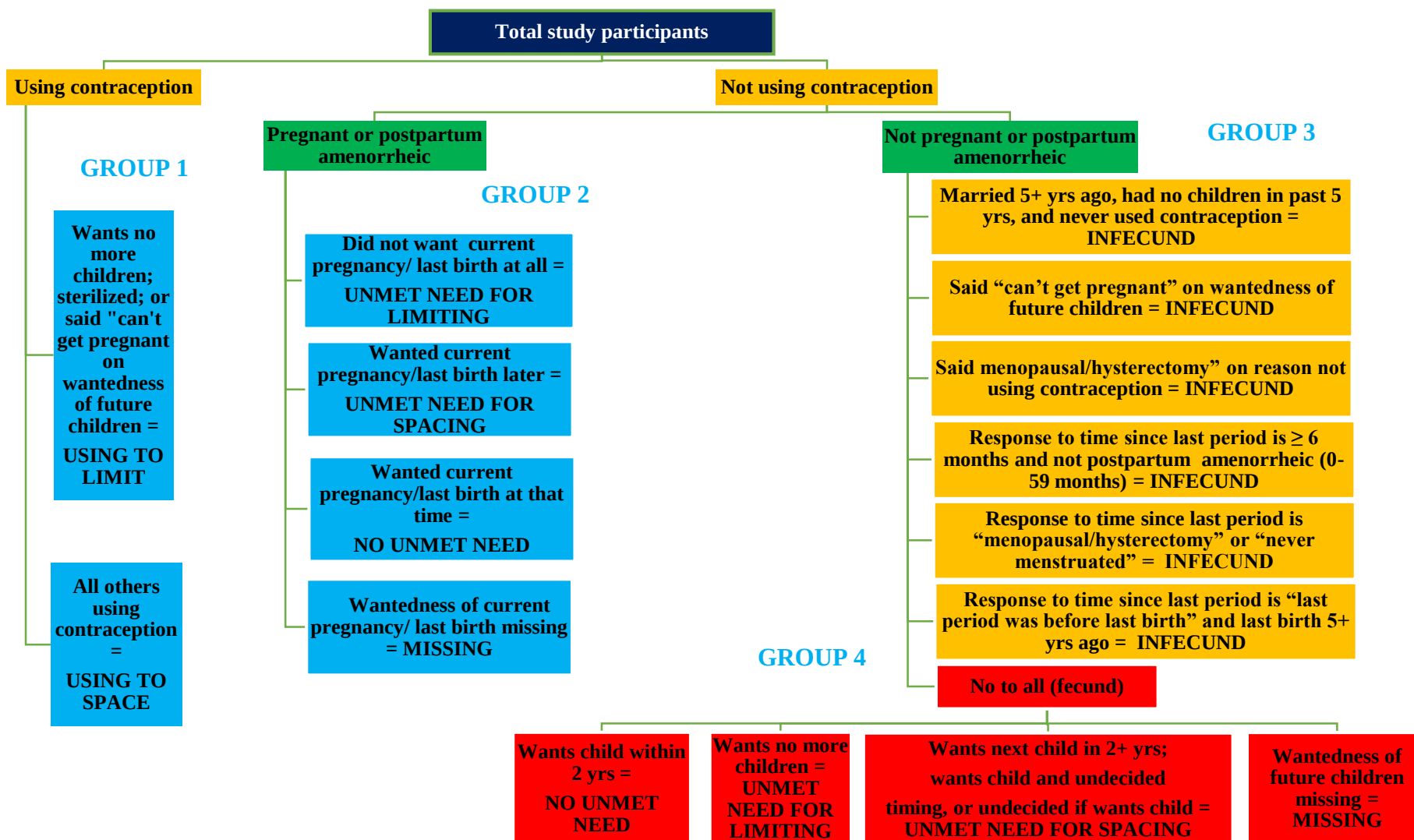
- Focus efforts on population with the greatest unmet need. Unmarried women and women who have never used a contraceptive method needs particular attention.
- Educate women about their risk of getting pregnant. As noted earlier, significant proportion of women with unmet need perceived a low risk of pregnancy. These women need, first and foremost, the information with which to accurately assess their risk of getting pregnant.
- Offer a range of contraceptive methods and create easier access. In order to negotiate the side effects associated with various contraceptive methods and to avoid the side effects that are not acceptable to them, women must have access to a broad range of contraceptive methods.
- Advocate the minimal risks or side effects associated with contraceptive methods compared to maternal health problems incurred by unwanted pregnancies.
- Create mechanism for periodic follow-up to enable women who are facing difficulties switch to another method rather than discontinue use altogether.
- In addition, expanding access to long-acting and permanent methods should also be prioritized to address women with unmet need for limiting.
- Focus on men as well as women. Encouraging communication between couples and increasing male partner involvement through a renewed focus on couples counseling are key in addressing unmet need in general and dual method use in particular.
- A vigorous campaign should be made to advocate the adoption of dual protection as a way of not just reducing horizontal transmission of HIV and other STIs, but also reducing vertical transmission of HIV as it provide extra protection against unwanted pregnancy.

8.2.4 FOR RESEARCHERS

- Conduct further studies on the same issue in different parts of the country to come up with more representative results.
- Conduct a similar study to assess the unmet contraceptive need among sexually active unmarried women as it might be different from that of women who are married or in union.
- Undertake longitudinal studies investigating how reproductive and fertility intention change through time before and after HIV diagnosis as well as ART initiation.
- Conduct study to assess the quality of family planning counseling in the setting of HIV/AIDS at different entry points including antenatal, postnatal, family planning, PMTCT, VCT, ART and post-abortion service units of the hospital.
- Doing couples-based research (including couples where both partners are HIV infected as well as sero-discordant couples) can play an important role in understanding how fertility related decisions including use of condoms and other forms of contraception are made.
- Conduct study to assess the quality of family planning counseling in the setting of HIV/AIDS at different entry points including antenatal, postnatal, family planning, PMTCT, VCT, ART and post-abortion service units of the hospital.
- Factors contributing to the use and nonuse of different contraceptive method should be studied, especially condoms.
- Perform situational analysis to assess the readiness of clinics to provide integrated HIV/AIDS and family planning services.
- Search for effective integrated service delivery models and understand their impact on contraceptive use.

ANNEX I

REVISED DEFINITION OF UNMET NEED, CURRENTLY MARRIED WOMEN, 2012.



ANNEX II

DATA COLLECTION FORMAT AND CONSENT-ENGLISH

Introduction and Consent

Hello, my name is_____

First of all I would like to thank you for your time.

I am working in a research team in Saint Paul's Hospital Millennium Medical College. The research team is conducting a study on unmet need for contraception among HIV positive women attending HIV care and treatment service in the facility. We are inviting HIV positive women between the ages of 15 and 49 years to contribute for the study.

We would very much appreciate your participation in this study. Your responses will help through policy formulation and program implementation to improve family planning service needs and access. The study usually takes between 20 and 30 minutes to complete.

Your name will not be recorded and whatever information you provide will be kept strictly confidential and is to be used only for the purpose of this study. You have the right not to respond any question you don't want to and your participation is absolutely voluntary.

However, we hope you will participate in the study since your views are important.

In case you need more information about the study, you may contact the person listed on this card. **(GIVE CARD WITH CONTACT INFORMATION)**

Do you have any questions?

May I begin the interview now?

SIGNATURE OF INTERVIEWER: _____

DATE: ____/____/_____
(DD/MM/YYYY)

RESPONDENT AGREES TO BE
INTERVIEWED....1



RESPONDENT DOES NOT AGREE TO BE
INTERVIEWED....2



END

Questionnaire on unmet need for contraception among HIV positive women attending HIV care and treatment service at SPHMMC, Addis Ababa, Ethiopia.

Questionnaire Data				
1. Code Number _____ 2. Date of Interview ____/____/_____ (DD/MM/YYYY)				
Interviewer Data				
1. Interviewer's Name _____ 2. Interviewer ID _____ 3. Interviewer Signature _____				
Supervisor Data				
1. Supervisor Name _____ 2. Supervisor Signature _____				
Result of the Interview				
1. Complete 2. Incomplete 3. Refused 4. Other (specify) _____				
WHO stage of disease				CD ₄ Count
Stage	I	II	III	IV

PART 1-SOCIO-DEMOGRAPHIC CHARACTERISTICS

No.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
101	How old are you?	YEARS (AGE IN COMPLETED YEARS)	
102	Have you ever attended school?	YES.....1 NO. 2	→ 104
103	What is the highest level of school you attended?	PRIMARY.....1 SECONDARY.....2 TECHNICAL/VOCATIONAL.....3 HIGHER 4	
104	What is your occupation?	STUDENT 1 UNEMPLOYED.....2 HOUSEWIFE.....3 HOUSE SERVANT 4 DAILY LABORER 5 MERCHANT 6 GOVERNMENT EMPLOYEE 7 PRIVATE EMPLOYEE 8 COMMERCIAL SEX WORKER.....9 OTHER (SPECIFY) 10	
105	Do you have a monthly income?	YES.....1 NO 2	→ 226
106	What is your total monthly income?	_____Eth.Birr	

PART 2-ASSESSMEN OF UNMET NEED

No.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
226	Are you pregnant now?	YES 1 NO.....2 UNSURE..... 8	 238
228	When you got pregnant, did you want to get pregnant at that time?	YES 1 NO.....2	 238
229	Did you want to have a baby later on or did you not want any (more) children?	LATER..... 1 NO MORE 2	
238	When did your last menstrual period start? _____ (DATE, IF GIVEN)	DAYS AGO 1 WEEKS AGO 2 MONTHS AGO.....3 YEARS AGO 4 IN MENOPAUSE/ HAS HAD HYSTERECTOMY.. 994 BEFORE LAST BIRTH..... 995 NEVER MENSTRUATED..... 996	
302	CHECK 226: NOT PREGNANT ☐ OR UNSURE  PREGNANT ☐		 313
303	Are you currently doing something or using any method to delay or avoid getting pregnant?	YES.....1 NO 2	
313	Have you ever used anything or tried in any way to delay or avoid getting pregnant?	YES.....1 NO 2	
501	Have you ever given birth?	YES.....1 NO 2	 601

No.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
212	What name was given to your (last) baby? RECORD NAME	NAME _____	
215	In what month and year was (NAME) born? PROBE: When is his/her birthday?	MONTH YEAR	
401	CHECK 215: BIRTH IN 2005 OR LATER ↓ BIRTH BEFORE 2005 ↓	→ 601	
405	When you got pregnant with (NAME), did you want to get pregnant at that time?	YES.....1 NO 2	→ 447
406	Did you want to have a baby later on, or did you not want any (more) children?	LATER 1 NO MORE. 2	
447	Has your menstrual period returned since the birth of (NAME)?	YES 1 NO 2	
601	Are you currently married or living together with a man as if married?	YES, CURRENTLY MARRIED. 1 YES, LIVING WITH A MAN. 2	
610	Now I would like to ask about your (first) (husband/partner). In what month and year did you start living with him?	MONTH DON'T KNOW MONTH. 98 YEAR DON'T KNOW YEAR. 9998	

No.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
615	When was the last time you had sexual intercourse? - IF LESS THAN 12 MONTHS, ANSWER MUST BE RECORDED IN DAYS, WEEKS OR MONTHS. - IF 12 MONTHS (ONE YEAR) OR MORE, ANSWER MUST BE RECORDED IN YEARS.	DAYS AGO 1 WEEKS AGO 2 MONTHS AGO..... 3 YEARS AGO 4	
702	CHECK 226: PREGNANT ☐ NOT PREGNANT ☐ OR UNSURE		704
703	Now I have some questions about the future. After the child you are expecting now, would you like to have another child, or would you prefer not to have any more children?	HAVE ANOTHER CHILD 1 NO MORE 2 UNDECIDED/DON'T KNOW..... 8	705 END
704	Now I have some questions about the future. Would you like to have (a/another) child, or would you prefer not to have any (more) children?	HAVE (A/ANOTHER) CHILD 1 NO MORE/NONE 2 SAYS SHE CAN'T GET PREGNANT. 3 UNDECIDED/DON'T KNOW 8	707 END
705	CHECK 226: NOT PREGNANT ☐ OR UNSURE ☐ How long would you like to wait from now before the birth of (a/another) child? PREGNANT ☐ After the birth of the child you are expecting now, how long would you like to wait before the birth of another child?	MONTHS..... 1 YEARS..... 2 SOON/NOW..... 993 SAYS SHE CAN'T GET PREGNANT..... 994 AFTER MARRIAGE..... 995 OTHER _____ 996 (SPECIFY) DON'T KNOW 998	END END END

No.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
706	CHECK 226: NOT PREGNANT ☐ OR UNSURE PREGNANT ☐		END
707	CHECK 303: USING A CONTRACEPTIVE METHOD? NOT CURRENTLY USING ☐ CURRENTLY USING ☐		END
708	CHECK 705: NOT ASKED ☐ 24 OR MORE MONTHS OR 02 OR MORE YEARS ☐ 00-23 MONTHS OR 00-01 YEAR ☐		END
709	CHECK 704: WANTS TO HAVE A/ANOTHER CHILD ☐ WANTS NO MORE/NON ☐ You have said that you do not want (a/another) child soon. Can you tell me why you are not using a method to prevent pregnancy? Any other reason? You have said that you do not want any (more) children. Can you tell me why you are not using a method to prevent pregnancy?	NOT MARRIED..... 1 FERTILITY-RELATED REASONS NOT HAVING SEX.....2 INFREQUENT SEX.....3 MENOPAUSAL/HYSTERECTOMY.....4 CAN'T GET PREGNANT.....5 NOT MENSTRUATED SINCE LAST BIRTH.....6 BREASTFEEDING.....7 UP TO GOD/FATALISTIC.....8 OPPOSITION TO USE RESPONDENT OPPOSED.....9 PARTNER OPPOSED.....10 OTHS OPPOSED.....11 RELIGIOUS PROHIBITION...12 LACK OF KNOWLEDGE KNOWS NO METHOD.....13 KNOWS NO SOURCE.....14 METHOD-RELATED REASONS SIDE EFFECTS/HEALTH CONCERNS.....15 LACK OF ACCESS/TOO FAR..16 COSTS TOO MUCH.....17 PREFERRED METHOD NOT AVAILABLE.....18 NO METHOD AVAILABLE...19 INCONVENIENT TO USE....20 OTHER (SPECIFY).....21 DON'T KNOW...98	

PART 3-INFORMATION ON PREGNANCY AND CHILD BIRTH

No.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
500	CHECK 501: HAVE GIVEN ☐ BIRTH BEFORE HAVE NOT GIVEN BIRTH BEFORE ☐	→ 507	
502	To how many children have you given birth? IF NONE, RECORD '00'.	TOTAL	
503	Total number of children alive in total	_____	
504	Do you have any children that were born after discovering your HIV status?	YES.....1 NO 2	
505	Do you have any children that are currently living with HIV?	YES.....1 NO 2 I DON'T KNOW 8	
506	Do you have any children that have died because of HIV or HIV related illness?	YES.....1 NO 2 I DON'T KNOW 8	
507	Have you ever had an induced abortion?	YES.....1 NO 2	→END
508	How many times did you have an induced abortion?	_____	
509	Where did you get the abortion service?	HEALTH FACILITY 1 TRADITIONAL HEALER 2 SELF INDUCED 3 OTHER_____4 (SPECIFY)	

PART 4-UTILIZATION OF CONTRACEPTIVE METHOD

No.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
510	Would you say that the decision about whether or not to use contraception was mainly your decision, mainly your husband's/partner's decision, or did you both decide together?	MAINLY RESPONDENT. 1 MAINLY HUSBAND/PARTNER 2 JOINT DECISION 3 OTHER (Specify) 4	
511	CHECK 303: USING A CONTRACEPTIVE METHOD? CURRENTLY USING ☐ NOT CURRENTLY ☐ USING	→ 527	
512	Which method are you using? CIRCLE ALL MENTIONED	FEMALE STERILIZATION 1 MALE STERILIZATION 2 IUD 3 IMPLANTS. 4 INJECTIBLES 5 PILL 6 MALE CONDOM 7 FEMALE CONDOM. 8 LACTATIONAL AMEN METHOD. .9 RHYTHM METHOD. 10 WITHDRAWAL. 11 EMERGENCY CONTRACEPTION. .12 OTHER (Specify). 13	
513	Current Method. ENTER THE FIRST METHOD LISTED, NOT THE FIRST MENTIONED	_____	
514	LOOK AT Q 514. DO NOT ASK HER THIS QUESTION. IS THE WOMAN USING ONLY CONDOMS?	YES 1 NO 2	→ 522

No.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
515	Are you currently using condoms and another method of contraception?	YES 1 NO 2	→ 519
516	What is the main reason you are using both condoms and a contraceptive method?	AVOID HIV TRANSMISSION AND PREVENT PREGNANCY 1 PREVENT PREGNANCY..... 2 PREVENT HIV TRANSMISSION ... 3 PREVENT TRANSMISSION OF STDs 4 OTHER (Specify). 5 DON'T KNOW 8	
517	Have you had any challenges/problems with using both condoms and a contraceptive method?	YES 1 NO 2	→ 522
518	What challenges/problems did you have?	CONSISTENT USE DIFFICULT. 1 OPPOSITION FROM PARTNER 2 CONDOMS ARE SOMETIMES UNAVAILABLE 3 OTHER (Specify) 6	→ 522
519	Do you know of a place where a person can get condoms?	YES 1 NO 2	→ 522

No.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
520	Where is that? Any other place? PROBE TO IDENTIFY EACH TYPE OF SOURCE. IF UNABLE TO DETERMINE PUBLIC OR PRIVATE SECTOR WRITE THE NAME OF THE PLACE. _____ (NAME OF PLACE(S))	PUBLIC SECTOR GOVT. HOSPITAL A GOVT. HEALTH CENTER. . . B GOVT.HEALTH STATION/CLINIC. C GOVT.HEALTH POST/HEW. D OTHER PUBLIC _____ E (SPECIFY) NGO NGO HEALTH FACILITY . . . F VOLUNTARY COMMUNITY HEALTH WORKERS G OTHER NGO. H (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL I PRIVATE CLINIC. J PHARMACY. K ANTI-AIDS CLUB/ ASSOCIATION L OTHER PRIVATE MEDICAL M (SPECIFY) OTHER SOURCE SHOP/BAR/HOTEL/GROCERY/. . N FRIEND/RELATIVE O OTHER (SPECIFY) _____ X	
521	If you wanted to, could you yourself get a condom?	YES. 1 NO 2 DON'T KNOW/ UNSURE 8	

No.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
522	Does your husband/partner know that you are using a method of contraception?	YES 1 NO 2 DON'T KNOW 8	
523	Does your husband/partner support you in using method of contraception?	YES..... 1 NO 2 DON'T KNOW 8	
524	Last time you or your partner obtained the method you are currently using, where did you get it?	THE ART TREATMENT UNIT OF THE HOSPITAL 1 THE FAMILY PLANNING UNIT OF THE HOSPITAL 2 OTHER PUBLIC/GOVT. SECTOR ... 3 PRIVATE MEDICAL SECTOR 4 FGA/OTHER NGO HEALTH FACILITY 5 ANTI-AIDS CLUB/ASSOCIATION... 6 PHARMACY 7 SHOP..... 8 OTHER (SPECIFY) 9	
525	Did the provider who gave you the method know your HIV status? (Did you disclose your HIV status?)	YES..... 1 NO 2	
526	Where do you prefer to get the method of contraception you choose to use?	THE ART TREATMENT UNIT OF THE HOSPITAL 1 THE FAMILY PLANNING UNIT OF THE HOSPITAL 2 OTHER PUBLIC/GOVT. SECTOR ... 3 PRIVATE MEDICAL SECTOR 4 FGA/OTHER NGO HEALTH FACILITY 5 ANTI-AIDS CLUB/ASSOCIATION... 6 PHARMACY 7 SHOP..... 8 OTHER (SPECIFY) 9	

PART 5-INFORMATION ON HIV CARE AND TRETMENT

No.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP								
527	How long ago did you find out that you are HIV positive?	MONTHS 1 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table> YEARS..... 2 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table> DON'T REMEMBER..... 8									
528	How long have you been receiving any form of care or treatment services?	MONTHS 1 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table> YEARS..... 2 <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table> DON'T REMEMBER..... 8									
529	Have you started taking ART?	YES..... 1 NO 2									
530	When receiving HIV care or treatment, has a provider talked with you about whether or not you would like to have (more) children? PROBE: Did they talk with you about whether you wanted to become pregnant?	YES 1 NO 2 DON'T REMEMBER 8									
531	When receiving HIV care or treatment, has a provider talked with you about use of contraceptives?	YES 1 NO 2 DON'T REMEMBER 8	→ 533								

No.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP																
532	About which method of contraceptive were you counseled on?	FEMALE STERILIZATION 1 MALE STERILIZATION 2 IUD 3 IMPLANTS 4 INJECTIBLES 5 PILL 6 MALE CONDOM 7 FEMALE CONDOM.....8 LACTATIONAL AMEN METHOD. .9 RHYTHM METHOD.....10 WITHDRAWAL. 11 EMERGENCY CONTRACEPTION. .12 OTHER (Specify). 13																	
533	Can women with HIV safely use contraceptives?	YES 1 NO 2 DON'T KNOW 8																	
534	Can HIV be transmitted from a mother to her baby: During pregnancy? During delivery? By breastfeeding?	<table> <tr> <td></td><td>YES</td><td>NO</td><td>DK</td></tr> <tr> <td>DURING PREGNANCY</td><td>1</td><td>2</td><td>8</td></tr> <tr> <td>DURING DELIVERY</td><td>1</td><td>2</td><td>8</td></tr> <tr> <td>BREASTFEEDING</td><td>1</td><td>2</td><td>8</td></tr> </table>		YES	NO	DK	DURING PREGNANCY	1	2	8	DURING DELIVERY	1	2	8	BREASTFEEDING	1	2	8	
	YES	NO	DK																
DURING PREGNANCY	1	2	8																
DURING DELIVERY	1	2	8																
BREASTFEEDING	1	2	8																
535	CHECK 537: AT LEAST ☐  ONE 'YES'	OTHER ☐ 	539																
536	Do you know any method that decreases the risk of MTCT?	YES 1 NO 2	538																

No.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
537	What do you think it is? (THEY CAN GIVE MORE THAN ONE RESPONSE)	PREVENTING UNINTENDED PREGNANCY 1 USING ART 2 C/S DELIVERY 3 EXCLUSIVE BREAST FEEDING UP TO SIX MONTHS AFTER DELIVERY 4 BY NOT BREAST FEEDING.....5 OTHER (SPECIFY) 6	
538	Have you been told about mother to child transmission of HIV during HIV counseling?	YES 1 NO 2 DON'T REMEMBER/KNOW 8	
539	CHECK 601: CURRENTLY ☐ MARRIED/ LIVING ☐ WITH A MAN	NOT IN UNION ☐	→END
540	Does your husband/partner know your HIV status? (Have you disclosed your result to him?)	YES 1 NO 2	
541	Has your husband/partner ever tested for HIV?	YES..... 1 NO 2 DON'T KNOW 8	→END
542	What is your husband/partner's HIV status?	HIV POSITIVE.....1 HIV NEGATIVE..... 2 DO NOT WANT TO TELL 3 DON'T KNOW 8	→END
543	Has he started taking ART?	YES 1 NO 2 DON'T KNOW 8	
THANK RESPONDENT FOR HER TIME AND PARTICIPATION			

DATA COLLECTION FORMAT AND CONSENT-AMHARIC

ቃለ መጠይቅ ፎርም

የግንዛቤ እና ፈቃደኝነት መጠየቂያ ቅጽ	
እንደምን አደሩ/ ዋሉ? እንድምን ነዎት? እኔ ስሜ.....ይባላል። በቅዱስ ፓውሎስ ሆስፒታል ሚሊኒየም ሜዲካል ኮልጅ የጥናት ቡድን አባል ነኝ። በመጀመሪያ ስለሰጡኝ ጊዜ በጣም አመሰግናለሁ። ጥናቱ የሚያተኩረው እኔ አይ ሺ በደማቸው ውስጥ የሚገኝባቸውንና የፀረ ቫይረስ ህክምና መስጫ ተቋም ለሚመጡ ተገልጋዮች የሚሰጠውን የቤተሰብ እቅድ አገልግሎት አሰጣጥ ሁኔታ ለማየት የሚያስችል ዳሰሳ ነው። ለዚህም እድሜያቸው ከ 15 እስከ 49 ያሉ የአገልግሎቱ ተጠቃሚዎችን ቃለ መጠይቅ በማድረግ ላይ አንገኛለን። እርሶም በዚህ ጥናት እንዲሳተፉ የተመረጡት በእጣ ነው። ቃለ ምልልሱ በግምት ከ 20 እስከ 30 ደቂቃ ይፈጃል። የእርሶ ስምም ሆነ መለያ መረጃዎች አይመዘገቡም። የሚሰጡን መረጃ ሚስጥራዊነቱ ፍፁም የተጠበቀ ሲሆን መረጃውም ለጥናቱ አላማ ብቻ ይውላል። በጥናቱ የመሳተፍም ሆነ ያለመሳተፍ መብት ያለዎት ሲሆን ጥያቄዎችን ያለ መመለስ ወይም የማቋረጥ መብቱ የተጠበቀ ነው። ነገር ግን እርሶ የሚሰጡን መረጃ በጤና ተቋሞች የሚሰጠውን አገልግሎት ለማሻሻልና ፖሊሲዎችን ለማውጣት ጠቃሚ ነው። ለበለጠ መረጃ የተመራማሪው አድራሻ በዚህ ካረድ ላይ ይገኛል። (የተመራማሪውን አድራሻ የያዘውን ካርድ ይስጡ)	
ጥናቱን በተመለከተ የሚጠይቁት ነገር አለዎት?	
የጠያቂው ፊርማ: _____ ቀን: ____/____/____ (ቀን/ወር/ዓም)	
በጥናቱ ላይ ለመሳተፍ ፈቃደኛ ሆነዋል. 1 ↓ አመስግነው ቃለ ምልልሱን ይቀጥሉ	በጥናቱ ላይ ለመሳተፍ ፈቃደኛ አልሆኑም. 2 ↓ አመስግነው ወደ ሌላ ተጠያቂ ይለፉ

ኤች አይ ቪ በደማቸው ውስጥ የሚገኝባቸውንና በቅዱስ ፓውሎስ ሆስፒታል ሚሊኒየም ሜዲካል ኮልጅ የፀረ ቫይረስ ህክምና መስጫ ተቋም ለሚመጡ ተገልጋዮች የሚሰጠውን የቤተሰብ እቅድ አገልግሎት አሰጣጥ ሁኔታ ለማጥናት የተዘጋጀ የቃለ-መጠይቅ ቅጽ።

ቃለ-መጠይቅ ቅጽ	
1. የኮድ ቁጥር _____ 2. ቃለ-መጠይቅ የተደረገበት ቀን ____/____/_____ (ቀቀ/ወወ/ዓም)	
የጠያቂው መረጃ	
1. የጠያቂው ስም _____ 2. የጠያቂው መለያ ቁጥር _____ 3. የጠያቂው ፊርማ _____	
የተቆጣጣሪው መረጃ	
1. የተቆጣጣሪው ስም _____ 2. የተቆጣጣሪው ፊርማ _____	
የቃለ-መጠይቁ ውጤት	
1. በሙሉ ተጠናቋል 2. አልተጠናቀቀም 3. ተጠያቂዋ ፈቃደኛ አልሆነም	
የዓለም የጤና ድርጅት ደረጃ I II III IV	የCD ₄ ብዛት _____

ክፍል 1-ማሕበራዊ እና ሥነ-ህዝባዊ ገፅታዎች

ተ.ቁ	ጥያቄዎች	ምድብ	ዝላል
101	ዕድሜዎ ስንት ነው?	ዓመት	
102	የቀለም ትምህርት ተምረዋል?	አዎ. 1 የለም ፤ አልተማርኩም. 2	→104
103	ያጠናቀቁት ከፍተኛ የትምህርት ደረጃ ስንት ነው?	አንደኛ ደረጃ (ከ 1-8 ኛ ክፍል). . . . 1 ሁለተኛ ደረጃ(ከ 9-12 ኛ ክፍል) 2 ቴክኒክና ሙያ ሰርተፊኬት 3 ከፍተኛ ትምህርት (ኮሌጅ/ዩኒቨርሲቲ) . 4	
104	የሥራ ሁኔታ?	ተማሪ. 1 ሥራ የሌላት. 2 የቤት እመቤት. 3 የቤት ሠራተኛ 4 የቀን ሠራተኛ. 5 ነጋዴ. 6 የመንግስት ሠራተኛ 7 የግል ሥራ ተቀጣሪ. 8 ሴተኛ አዳሪ. 9 ሌላ (ይገለጽ) 10	
105	የወር ገቢ አለዎት?	አዎ. 1 የለኝም. 2	→226
106	ጠቅላላ ወርሃዊ ገቢዎ ስንት ነው?	_____ ብር	

ክፍል 2-የቤተሰብ እቅድ አገልግሎት አለመሟላትን የተመለከቱ መጠይቆች

ተ.ቁ	ጥያቄዎች	ምድብ	ዝላል
226	በአሁኑ ወቅት ነፍሱ-ጡር ነዎት?	አዎ. 1 አይደለሁም. 2 እርግጠኛ አይደለሁም. 8	→ 238
228	ነፍሱ-ጡር በሆኑበት ሰዓት፤እርግዝናውን በዛን ጊዜ ፈልገውት ነበር?	አዎ. 1 የለም፤አልፈለኩም. 2	→ 238
229	ለወደፊት ነበር ልጅ የፈለጉት፤ወይንስ ምንም (ተጨማሪ) ልጅ አልፈለጉም ነበር?	ለወደፊት ነበር ልጅ የፈለኩት. 1 ምንም (ተጨማሪ) ልጅ አልፈለኩም . . 2	
238	የመጨረሻው የወር አበባዎ መቼ ነበር የጀመረው? (ከተጠቀሰ፤ ቀኑን ሙላ)	ቀናት በፊት 1 ሳምንታት በፊት. 2 ወራት በፊት. 3 ዓመታት በፊት. 4 አርጠዋል/ መሐፀን በቀዶ ህክምና ወጥቶል. . 994 የመጨረሻውን ልጅ ከመውለዱ በፊት. 995 የወር አበባ መጥቶ አያውቅም . . . 996	
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303	በአሁኑ ወቅት እርግዝናን ለማራራቅ ወይንም ለማስቀረት እያደረጉት ያለ ነገር ወይንም እየተጠቀሙት ያለ ዘዴ አለ?	አዎ. 1 የለም 2	
313	በህይወት ዘመንዎ እርግዝናን ለማራራቅ ወይንም ለማስቀረት ያደረጉት ነገር ወይንም የተጠቀሙት ዘዴ አለ?	አዎ. 1 የለም 2	

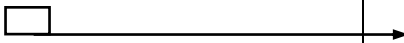
ተ.ቁ	ጥያቄዎች	ምድብ	ዝላል
501	በህይወት ዘመንዎ ልጅ ወልደው ያውቃሉ?	አዎ. 1 የለም፤ አላውቅም 2	→ 601
212	የልጅዎ (የመጨረሻው ልጅዎ) ስም ማነው? ስሙን መዝግብ	ስም _____	
215	በምን ወር እና ዓመተ-ምህረት ነበር(ስም) የተወለደው/ችው? የልደቱን/ቷን ቀን ጠይቅ	ወር. ዓመተ-ምህረት . . .	
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405	(ስም)ን ነፍሱ-ጡር በሆኑበት ሰዓት፤ እርግዝናውን በዛን ጊዜ ፈልገውት ነበር?	አዎ. 1 የለም፤ አልፈለኩም. 2	→ 447
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447	(ስም)ን ከወለዱ በኋላ የወር አበባዎ ተመልሶ መጥቷልን?	አዎ. 1 የለም፤ አልመጣም. 2	
601	በአሁኑ ወቅት ባለትዳር ነዎት ወይንስ እንደ ባለትዳር አብሮዎት የሚኖር ሰው አለ?	አዎ፤ ባለትዳር ነኝ. 1 አዎ፤ አብሮኝ የሚኖር ሰው አለ. . . . 2	
610	አሁን ስለ (መጀመሪያ) (ባለቤትዎ/ንደኛዎ) ጥያቄዎችን አነሳለሁኝ። በምን ወር እና ዓመተ- ምህረት አብረውት መኖር ጀመሩ?	ወር. ወሩን አላውቀውም. 98 ዓመተ-ምህረት. . . ዓመተ-ምህረቱን አላውቀውም. . . 9998	

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702	ተ.ቁ 226ን ተመልከት፤ ነፍሱ-ጡር 	ነፍሱ-ጡር አይደለሁም/  እርግጠኛ አይደለሁም	→ 704
703	አሁን ስለ ወደ ፊቱ ጥቂት ጥያቄዎች አሉኝ። በአሁኑ ወቅት ከፀነሱት ልጅ በኋላ ሌላ ልጅ መውለድ ይፈልጋሉ ወይንስ ሌላ ልጅ አለመውለዱን ይመርጣሉ?	ሌላ ልጅ መውለድ እፈልጋለሁ. 1 ሌላ ልጅ አለመውለዱን እመርጣለሁ . 2 አልወሰንኩም/አላወቅም. 8	→ 705  → ጨርስ
704	አሁን ስለ ወደ ፊቱ ጥቂት ጥያቄዎች አሉኝ። (ሌላ) ልጅ መውለድ ይፈልጋሉ ወይንስ (ሌላ) ልጅ አለመውለዱን ይመርጣሉ?	(ሌላ) ልጅ መውለድ እፈልጋለሁ. . . . 1 ሌላ ልጅ አለመውለዱን እመርጣለሁ. 2 መፀነስ አልችልም. 3 አልወሰንኩም/አላወቅም 8	→ 707  → ጨርስ
705	ተ.ቁ 226ን ተመልከት፤ ነፍሱ-ጡር አይደለሁም/ እርግጠኛ አይደለሁም  ነፍሱ-ጡር  ከአሁን በኋላ (ሌላ) ልጅ ከመውለድዎ በፊት ምን ያህል ጊዜ መቆየት ይፈልጋሉ? አሁን የፀነሱትን ልጅ ከወለዱ በኋላ ሌላ ልጅ ከመውለድዎ በፊት ምን ያህል ጊዜ መቆየት ይፈልጋሉ?	ወራት. 1 ዓመታት 2 በቅርብ/አሁን. 993 መፀነስ አልችልም 994 ከጋብቻ በኋላ. 995 ሌላ _____ 996 (ይገለጽ) አላወቅም. 998	 → ጨርስ  → ጨርስ  → ጨርስ

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706	ተ.ቁ 226ን ተመልከት፤ ነፍሱ-ጡር አይደለሁም/ ☐ እርግጠኛ አይደለሁም ☐	ነፍሱ-ጡር ☐	ጨርስ
707	ተ.ቁ 303ን ተመልከት፤ የእርግዝና መከላከያ አጠቃቀም ሁኔታ? በአሁኑ ወቅት ☐ እየተጠቀሙ አይደለም ☐	በአሁኑ ወቅት እየተጠቀሙ ነው ☐	ጨርስ
708	ተ.ቁ 705ን ተመልከት፤ አልተጠየቀም ☐ 24 ወራት ወይም በላይ ወይም ☐ 02 ዓመታት ወይም በላይ ☐	00-23 ወራት ወይም ☐ 00-01 ዓመት ☐	ጨርስ
709	ተ.ቁ 704ን ተመልከት፤ (ሌላ) ልጅ መውለድ እፈልጋለሁ ☐ ሌላ ልጅ አለመውለዱን እመርጣለሁ ☐ በቅርቡ (ሌላ) ልጅ አልፈልግም ብለዋል፤ ለምን የእርግዝና መከላከያ ዘዴ እንደማይጠቀሙ ሊነግሩኝ ይችላሉ? ሌላ ምክንያት?	ሌላ ልጅ አለመውለዱን እመርጣለሁ ☐ (ሌላ) ልጅ አልፈልግም ብለዋል፤ ለምን የእርግዝና መከላከያ ዘዴ እንደማይጠቀሙ ሊነግሩኝ ይችላሉ? ሌላ ምክንያት?	ባለትዳር አይደለሁም. 1 ከእርግዝና ጋር የተያያዙ ምክንያቶች ግንኙነት አልፈልግም 2 ብዙም ግንኙነት አልፈልግም. . . . 3 አርጠዋል/ መሐፀን በቀዶ ህክምና ወጥቶል. 4 መፀነስ አልችልም. 5 የመጨረሻውን ልጅ ከወለድኩ የወር አበባ አልመጣም 6 ጡት እያጠባሁ ነው 7 ለፈጣሪ ትቼዋለሁ. 8 ለመጠቀም አለመፍቀድ ተጠያቂዋ ስላልፈቀዱ. 9 ባለቤቴ/ጓደኛዬ ስላልፈቀደ . . . 10 ሌሎች ስላልፈቀዱ. 11 ሀይማኖቴ ስለማይፈቅድ. 12 የዕውቀት አለመኖር ስለእርግዝና መከላከያ ዘዴ ዕውቀት ስለሌለኝ. 13

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		የመድሃኒቱን የጎንዮሽ ጉዳት ስለምፈራ. 15	
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ተ.ቁ	ጥያቄዎች	ምድብ	ዝላል
500	ተ.ቁ 501ን ተመልከት፤ ልጅ ወልደው ያውቃል 	ልጅ ወልደው አያውቁም 	507
502	የወለዱት ልጆች ብዛት ስንት ነው? ምንም ልጅ ካልወለዱ '00' መዝግብ	ጠቅላላ.	
503	ጠቅላላ በህይወት ያሉት ልጆች ብዛት ስንት ነው?	_____	
504	ኤች አይ ቪ በደምዎ ውስጥ መሆኑን ካወቁ በኋላ የተወለዱ ልጆች አሎት?	አዎ. 1 የለኝም. 2	
505	በአሁኑ ወቅት ኤች አይ ቪ በደሙ/ሚ ውስጥ ያለበት/ባት ልጅ አሎት?	አዎ. 1 የለኝም. 2 አላውቅም. 8	
506	በ ኤች አይ ቪ ወይም ከ ኤች አይ ቪ ጋር በተያያዘ ህመም ምክንያት የሞተ/ች ልጅ አሎት?	አዎ. 1 የለኝም. 2 አላውቅም. 8	
507	በህይወቶ ውርጃ/የፅንሰ ማረቂያ/ አድርገው ያውቃል?	አዎ. 1 አላውቅም. 2	→ ጨርስ
508	ስንት ጊዜ ውርጃ/የፅንሰ ማረቂያ/ አድርገው ያውቃል?	_____	
509	የውርጃ/የፅንሰ ማረቂያ/ አገልግሎቱን የት ነው ያገኙት/የተጠቀሙት?	የጤና ተቋም 1 የባህላዊ ሐኪም. 2 በራሴ መንገድ ነው ያስወረድኩት. . . 3 ሌላ (ይገለጽ)_____ 5	

ክፍል 4- እርግዝና መከላከያ ዘዴ አጠቃቀምን የተመለከቱ መጠይቆች

ተ.ቁ	ጥያቄዎች	ምድብ	ዝላል
510	የእርግዝና መከላከያ ዘዴ የመጠቀም ወይም ያለመጠቀም ውሳኔው የእርሶ ነው፤ የባለቤት/የንደኛዎ ነው ወይንስ ሁለታችሁም አብራችሁ በጋራ ነው የወሰናችሁት።	የተጠያቂዋ ውሳኔ. 1 የተጠያቂዋ ባለቤት/ንደኛ ውሳኔ. . . .2 የጋራ ውሳኔ 3 ሌላ(ይገለጽ). 4	
511	ተ.ቁ 303ን ተመልከት፤ የእርግዝና መከላከያ አጠቃቀም ሁኔታ? በአሁኑ ወቅት ☐ እየተጠቀሙ ነው ☐	በአሁኑ ወቅት ☐ እየተጠቀሙ አይደለም ☐	→ 527
512	የትኛውን የእርግዝና መከላከያ ዘዴ እየተጠቀሙ ነው? የተጠቀሰውን በሙሉ አክብብ	የማህፀን ቱቦ ማስቆጠር 1 የወንድ ዘር ፍሬ ቱቦ ማስቆጠር 2 የማህፀን ሉፕ (አይ ዩ ዲ). 3 በክንድ የሚቀበር 4 መርፌ (ዲፖ). 5 እንክብል(ፒልስ). 6 የወንድ ኮንዶም. 7 የሴት ኮንዶም. 8 ጡት ማጥባት 9 ለእርግዝና አስጊ በሆነ ወቅት መታቀብ. 10 ዘርን ወጪ ማፍሰስ. 11 ድንገተኛ የእርግዝና መከላከያ. . . .12 ሌላ(ይገለጽ) 13	
513	አሁኑ የሚጠቀሙት የእርግዝና መከላከያ ዘዴ። ከላይ (በ 514) መጀመሪያ የተጠቀሰውን ሳይሆን መጀመሪያ የተጻፈውን የእርግዝና መከላከያ ዘዴ መዝግብ።		
514	ተ.ቁ 514ን ተመልከት፤ ይህን ጥያቄ አትጠይቅ። ተጠያቂዋ ኮንዶም ብቻ ነው የሚጠቀሙት?	አዎ. 1 አይደለም. 2	→ 522

ተ.ቁ	ጥያቄዎች	ምድብ	ዝላል
515	በአሁኑ ወቅት ኮንዶም እና ሌላ የእርግዝና መከላከያ ዘዴ እየተጠቀሙ ነውን?	አዎ. 1 አይደለም. 2	→ 519
516	ኮንዶም እና ሌላ የእርግዝና መከላከያ ዘዴ የሚጠቀሙበት ዋና ምክንያቶች ምንድን ነው?	ኤች አይ ቪ ና እንዲሁም እርግዝናን ለመከላከል 1 እርግዝናን ለመከላከል 2 ኤች አይ ቪን ለመከላከል 3 የአባለዘር በሽታዎችን ለመከላከል . . . 4 ሌላ(ይገለጽ) 5 አላውቅም 8	
517	ኮንዶም እና ሌላ የእርግዝና መከላከያ ዘዴ በሚጠቀሙበት ጊዜ ያጋጠሞት እክል/ችግር አለ?	አዎ. 1 የለም 2	→ 522
518	ምን እክል/ችግር አጋጥሞት ነበር?	ቋሚ የሆነ አጠቃቀም አለመቻል . . . 1 የባለቤቱ/የጓደኛዬ ተቃውሞ. 2 ኮንዶም አንዳንድ ጊዜ አለማግኘት . . . 3 ሌላ(ይገለጽ). 6	→ 522
519	ኮንዶም የት ሊገኝ እንደሚችል ያውቃሉ?	አዎ 1 አላውቅም 2	→ 522
520	የት ነው ኮንዶም ሊገኝ የሚችለው? እያንዳንዱን ተቋም ለማወቅ ማብራርያ ጠይቅ። የህዝብ ወይንም የግል ተቋም መሆኑን ለመለየት ካልቻሉ የተቋሙን ስም ጻፍ/ፊ። _____ (የተቋሙ ስም)	የህዝብ ተቋም የመንግስት ሆስፒታል. 1 የመንግስት ጤና ጣቢያ. 2 የመንግስት ጤና ኬላ/የጤና ኤክስቴንሽን ሰራተኛ 3 ሌላ የህዝብ ተቋም (ይገለጽ)_____ . . . 4 መንግስታዊ ያልሆነ ድርጅት መንግስታዊ ያልሆነ የጤና ተቋም. 5	

		በበጎፈቃደኝነት ማህበረሰቡን የሚያገለግሉ የጤና ባለሙያዎች. 6 ሌላ መንግስታዊ ያልሆነ ድርጅት(ይገለጽ) 7 የግል ህክምና ተቋም የግል ሆስፒታል 8 የግል ክሊኒክ. 9 ፋርማሲ. 10 የፀረ-ኤድስ ክለብ/ማህበር. . . 11 ሌላ የግል ህክምና ተቋም (ይገለጽ). 12 ሌላ ተቋም ሱቅ/መጠጥ 13 ቤት/ሆቴል/ግሮሰሪ. 14 ንደኛ/ዘመድ. 15 ሌላ(ይገለጽ) 16	
521	ከፈለጉ በራሶ/በግልዎ ኮንዶም ማግኘት ይችላሉ?	አዎ. 1 አልችልም. 2 አላውቅም/እርግጠኛ አይደለሁም 8	
522	ባለቤቶ/ንደኛዎ የእርግዝና መከላከያ ዘዴ እየተጠቀሙ መሆንዎን ያውቃሉ?	አዎ. 1 የለም፤ አያውቁም. 2 አላውቅም. 8	
523	ባለቤቶ/ንደኛዎ የእርግዝና መከላከያ ዘዴ መጠቀሞን ይደግፋታል?	አዎ. 1 የለም፤ አይደግፋትም. 2 አላውቅም. 8	

ተ.ቁ	ጥያቄዎች	ምድብ	ዝላል
524	በአሁኑ ወቅት እርሶ ወይም የእርሶ ባለቤት/ንደኛ የሚጠቀሙትን የእርግዝና መከላከያ ዘዴ ከየት አገኙት?	በሆስፒታሉ የፀረ ቫይረስ ህክምና መስጫ ክፍል. 1 በሆስፒታሉ የቤተሰብ ምጣኔ መስጫ ክፍል. 2 ሌላ የህዝብ/የመንግስት ተቋም 3 የግል ህክምና ተቋም. 4 ከቤተሰብ መምሪያ/ሌላ መንግስታዊ ያልሆነ የጤና ተቋም 5 የፀረ-ኤድስ ክለብ/ማህበር 6 ፋርማሲ. 7 ሱቅ. 8 ሌላ(ይገለጽ). 9	
525	የእርግዝና መከላከያ ዘዴውን የሰጥዎ ባለሙያ ስለ ኤች አይ ቪ ውጤትዎ ያውቃልን? (ውጤትዎን ለባለሙያው አሳውቀዋልን?)	አዎ. 1 የለም፤ አያውቅም. 2	
526	እርሶ ለመጠቀም የመረጡትን የእርግዝና መከላከያ ዘዴ ከየት ቢያገኙ ይመርጣሉ?	በሆስፒታሉ የፀረ ቫይረስ ህክምና መስጫ ክፍል. 1 በሆስፒታሉ የቤተሰብ ምጣኔ መስጫ ክፍል. 2 ሌላ የህዝብ/የመንግስት ተቋም 3 የግል ህክምና ተቋም. 4 ከቤተሰብ መምሪያ/ሌላ መንግስታዊ ያልሆነ የጤና ተቋም 5 የፀረ-ኤድስ ክለብ/ማህበር 6 ፋርማሲ. 7 ሱቅ. 8 ሌላ(ይገለጽ). 9	

ክፍል 5-የፀረ ኤች አይ ቪ ህክምና ክትትልን የተመለከቱ መጠይቆች

ተ.ቁ	ጥያቄዎች	ምድብ	ዝላል
527	ኤች አይ ቪ በደምዎ ውስጥ መሆኑን ካወቁ ምን ያህል ጊዜ ይሆንዎታል?	ወራት 1 ዓመታት 2 አላስታውስም. 8	
528	የፀረ ኤች አይ ቪ ህክምና ክትትል ከጀመሩ ምን ያህል ጊዜ ይሆንዎታል?	ወራት 1 ዓመታት 2 አላስታውስም. 8	
529	የፀረ ኤች አይ ቪ መድሃኒት መውሰድ ጀምረዋልን?	አዎ. 1 የለም፤ አልጀመርኩም. 2	
530	የፀረ ኤች አይ ቪ ህክምና ክትትል ሢያደርጉ፤ የጤና ባለሙያው የ(ሌላ) ልጅ መውለድ ወይም ያለመውለድ ፍላጎቶን አማክሮታልን? የማርገዝ ፍላጎቶን የጤና ባለሙያዎቹ ጠይቆታልን?	አዎ. 1 የለም፤ አላማከሩኝም 2 አላስታውስም. 8	
531	የፀረ ኤች አይ ቪ ህክምና ክትትል ሢያደርጉ፤ የጤና ባለሙያው ስለ የእርግዝና መከላከያ ዘዴዎች አጠቃቀም አማክሮታልን?	አዎ. 1 የለም፤ አላማከሩኝም 2 አላስታውስም 8	→ 533

ተ.ቁ	ጥያቄዎች	ምድብ	ዝላል																
532	ስለየትኛዎቹ የእርግዝና መከላከያ ዘዴዎች ተወያዩ?	የማህፀን ቱቦ ማስቆጠር 1 የወንድ ዘር ፍሬ ቱቦ ማስቆጠር 2 የማህፀን ሉፕ (አይ ዩ ዲ). 3 በክንድ የሚቀበር.. 4 መርፌ (ዲፖ). 5 እንክብል(ፒልስ). 6 የወንድ ኮንዶም. 7 የሴት ኮንዶም. 8 ጡት ማጥባት. 9 ለእርግዝና አስጊ በሆነ ወቅት መታቀብ. 10 ዘርን ወጪ ማፍሰስ. 11 ድንገተኛ የእርግዝና መከላከያ. . . . 12 ሌላ(ይገለጽ) 13																	
533	ኤች አይ ቪ በደማቸው ውስጥ የሚገኝባቸውንና ሴቶች ያለምንም ችግር የእርግዝና መከላከያ ዘዴዎች መጠቀም ይችላሉን?	አዎ. 1 አይችሉም. 2 አላውቅም. 8																	
534	ኤች አይ ቪ ከእናት ወደ ልጅ በምን ወቅት ይተላለፋል ብለው ያስባሉ፤ በእርግዝና ወቅት? በወሊድ ወቅት? ጡት በማጥባት?	<table> <tr> <td></td><td>አዎ</td><td>የለም</td><td>አላውቅም</td></tr> <tr> <td>በእርግዝና</td><td>1</td><td>2</td><td>8</td></tr> <tr> <td>በወሊድ</td><td>1</td><td>2</td><td>8</td></tr> <tr> <td>ጡት በማጥባት</td><td>1</td><td>2</td><td>8</td></tr> </table>		አዎ	የለም	አላውቅም	በእርግዝና	1	2	8	በወሊድ	1	2	8	ጡት በማጥባት	1	2	8	
	አዎ	የለም	አላውቅም																
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ጡት በማጥባት	1	2	8																
535	ተ.ቁ 537ን ተመልከት፤ከእናት ወደ ልጅ ይተላለፋል? በያንስ አንድ ☐ “አዎ” ↓	ሌላ ☐ →	539																
536	የኤች አይ ቪን ከ እናት ወደ ልጅ የመተላለፍ አደጋ የሚቀንሱ ዘዴዎችን ያውቃሉ?	አዎ. 1 አላውቅም. 2	→ 538																

ተ.ቁ	ጥያቄዎች	ምድብ	ዝላል
537	ምን ይመስሎታል? ከአንድ በላይ መልስ ሊመልሱ ይችላሉ	ያልተፈለገን እርግዝና መከላከል 1 የፀረ ኤች አይ ቪ መድሃኒት መጠቀም 2 በቀዶ ህክምና መውለድ. 3 ለስድስት ወር ጡት ብቻ ማጥባት. . . 4 ሙሉ በሙሉ ጡት ባለማጥባት 5 ሌላ(ይገለጽ). 6	
538	የፀረ ኤች አይ ቪ ህክምና ክትትል ሢያደርጉ፤ኤች አይ ቪ ከ እናት ወደ ልጅ እንደሚተላለፍ ተነግሮታልን?	አዎ. 1 አልተነገረኝም 2 አላስታውስም/አላውቅም. 8	
539	ተ.ቁ 601ን ተመልከት፤ ባለትዳር/ንደኛ  	ትዳር/ንደኛ   ጨርስ የሌላት	
540	ባለቤትዎ/ንደኛዎ በጀምሮ ውስጥ ኤች አይ ቪ መኖሩን ያውቃሉ? (የኤች አይ ቪ የደም ምርመራ ውጤትዎን አሳውቀዋልን?)	አዎ. 1 የለም፤አላሳውቅኩም 2	
541	ባለቤትዎ/ንደኛዎ የኤች አይ ቪ የደም ምርመራ አድርገው ያውቃሉ?	አዎ 1 የለም፤አያውቅም. 2 አላውቅም. 8	 ጨርስ
542	ባለቤትዎ/ንደኛዎ የኤች አይ ቪ የደም ምርመራ ውጤት ምንድን ነው?	ፖዘቲቭ. 1 ነጌቲቭ. 2 መንገር አልፈልግም. 3 አላውቅም. 8	 ጨርስ
543	ባለቤትዎ/ንደኛዎ የፀረ ኤች አይ ቪ መድሃኒት መውለድ ጀምረዋልን?	አዎ. 1 የለም፤አልጀመሩም 2 አላውቅም. 8	
ስለ ትብብርዎ በጣም አመስግንዎታለሁ!!!			

ANNEX III

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ANNEX IV

DECLARATION

I, the undersigned declare that this thesis is my original work in partial fulfillment of the requirement for the postgraduate study in OBGYN. I also declare that it has never been presented in this or any other university and that all resources and materials used in the thesis have been duly acknowledged.

Resident's Name: Dr.Ferid Abbas

Signature: _____

Date of submission: January 14, 2016

This thesis has been submitted for examination with my approval as an advisor.

Advisor Name: Dr.Malede Birara

Signature: _____

Date of submission: January 14, 2016