



Addis Ababa University
College of Health Sciences
School of Public Health

**Unmet Reproductive Health Care Needs and Occurrence of Unintended
Pregnancy among HIV Positive Women in Antiretroviral Treatment
Units in Addis Ababa, Ethiopia**

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University in partial fulfillment of the Requirements for the Degree of
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ABSTRACT

Back ground: Reproductive health issues appear to be relatively neglected among HIV positive women. Hence the contribution of contraception as a strategy to reduce mother-to-child transmission is underutilized. As well, there are few incites and substantive data on the magnitude of unmet reproductive health care needs and occurrence of unintended pregnancy among HIV positive women is not available in Ethiopia (Addis Ababa).

Objective of the study: This study assessed unmet reproductive health care needs and occurrence of unintended pregnancy among HIV positive women enrolled in the ART units.

Methodology: The study was undertaken from December 2010 to Feburary2011 using quantitative cross sectional facility based study supplemented by qualitative in-depth interview on a sample of 548 HIV positive women in the ART follow up units in Addis Ababa. A systematic random sampling procedure was applied to select study participants. A pretested structured questioner was used to collect data and the data was analyzed using SPSS version 11.

Result: Unmet need for contraception in the study was 31%: 25% for spacing and 6% for limiting. Generally, HIV positive women who had a higher chance of unmet need for contraception were those with sero discordant partner (adjusted OR: 2.4, 95%CI: 1.04-5.64) and women who had faced unintended pregnancy after being HIV positive (adjusted OR: 10.12, 95%CI: 4.6-22.3). Whereas, women with recent CD4 count >200 were less likely to have unmet need for contraception than CD4 count of ≤ 200 (adjusted OR: 0.257, 95% CI: 0.09-0.70).

The proportion of unintended pregnancies among the total pregnancies during the post HIV diagnosis period were 147 (46%); of which 125 (38%) mistimed and 22 (8%) unwanted. In a multivariate analysis, HIV positive women who have unmet contraceptive (adjusted OR: 14.9, 95%CI: 4.8-46) and those who had ever used emergency contraception (adjusted OR: 4.1, 95%CI: 2-9.2) were having a significantly higher chance of experiencing unintended pregnancy.

11% of the women had ever discussed emergency contraception and discussion of safe termination of pregnancy was (8%) with the provider while contraception and condom were most discussed with the provider as reported by 78% of the respondents. Unmet need for safe termination of pregnancy was 37%.

Conclusion: Unmet contraceptive need and of reproductive counseling and safe termination of pregnancy were high among HIV positive women in the ART units. As a major manifestation of these, occurrence of unintended pregnancy was significantly higher among HIV positive women in the ART care units in Addis Ababa; which has implications for vertical HIV transmtion. These indicating the need to sought new strategies to address reproductive health care services and hence to satisfy reproductive health care needs of HIV positive woman.

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ACRONYMS

AAU	Addis Ababa University
AIDS	Acquired immune deficiency syndrome
ART	Antiretroviral therapy
ARV	Antiretroviral treatment
CPR	Contraceptive prevalence rate
ETB	Ethiopian Birr
EC	Emergency contraception
FHAPCO	Federal HIV/AIDS prevention and control office
HIV	Human immune deficiency syndrome
MOH	Ministry of Health
MTCT	Mother to child HIV transmission
PLWHA	People living with HIV/AIDS
PMTCT	Prevention of mother to child HIV transmission
RH	Reproductive health
SPSS	Statistical package for social sciences
STI	sexually transmitted infection
TOP	Termination of pregnancy
VCT	Voluntary counseling and testing
WHO	world health organization

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1-INTRODUCTION

HIV counseling and testing during pregnancy and the provision of antiretroviral drugs during delivery and following birth are recently the two primary approaches to prevent mother to child transmission of HIV (PMTCT).study done in the President's Emergency Plan for AIDS Relief (PEPFAR) focus countries in 2008 has shown that, contraception as an HIV prevention strategy is cost effective compared with other PMTCT approaches. Hence, a contraceptive strategy prevents 28.6% more HIV-positive births than nevirapine (1, 33).

Developing sexual and reproductive health services to meet the reproductive health care needs of people living with the human immune-deficiency virus (HIV) are growing concerns of HIV prevention. ART use is associated with significantly higher pregnancy rates among HIV positive women. However, little attention has been given to family planning, and other reproductive health care services for HIV positive women as critical components of HIV prevention, care and treatment services (2).

The occurrence of unintended pregnancy among HIV positive women was seen to be significant in different setups. In the United States in 2005, it is found that 88% of the first subsequent pregnancies among a cohort of HIV positive women were unplanned (3).

A study done in Pune, India, has discovered that HIV-positive women are nearly four times more likely to not have planned their most recent pregnancy as compared to HIV-negative women. As would be expected HIV-positive women were four times more concerned about this pregnancy (Due to the risk of HIV transmission) than HIV negative pregnant women. Repeat pregnancies were more likely to occur for women who did not disclose their HIV status to their spouse. Thus the majority of the repeat pregnancies for HIV-positive women were both unplanned and unwanted (4).

In Sub Saharan Africa and Asia the high rate of death of women is attributed to complications of pregnancy, childbearing, and abortion contributed by unmet needs of contraception. For a woman with HIV, the risks of unintended pregnancy are accompanied by the risk of mother to child HIV transmission (which occurs in 30-40% of pregnancies) and an effect in their own health (2).

Ethiopia has one of the largest populations of HIV infected women in the world with an estimated 1.1 million people living with HIV. In 2009, the adult HIV prevalence was estimated to be between 1.4% and 2.8% among men and women respectively (6).

Even though reproductive health care needs include all components that contribute to reproductive health and well-being through preventing unintended pregnancy, because of the resource and time constraints the recent study is limited to only three of the components which are interrelated. These are unmet need of family planning, reproductive counseling needs and need for safe termination of pregnancy.

Rationale of the study:

Far less attention is given to prevention of unintended pregnancy as a strategy to PMTCT, despite its demonstrable contribution. There are little research incites and substantive data is not available on the magnitude of unintended pregnancy and unmet reproductive health care needs and among HIV positive woman in Ethiopia (Addis Ababa). Hence the present study is aimed to fill such gaps and show the magnitudes and hence intervention areas in a wide ranging vertical HIV prevention programmes.

2-LITERATURE REVIEW

2.1 Global, Regional and National context of HIV/AIDS

Globally there are 33,300,000 PLWHA of which 15,900,000 are women aged 15 and above. Sub-Saharan Africa still bears an inordinate share of the global HIV burden. Although the rate of new HIV infections has decreased, the total number of people living with HIV continues to rise. In 2009, that number reached 22.5 million [20.9 million–24.2 million], which is 68% of the global total. Sub-Saharan Africa has more women than men living with HIV. The vast majority of people newly infected with HIV in sub-Saharan Africa are infected during unprotected heterosexual intercourse and onward transmission of HIV to newborns and breastfed babies. Having unprotected sex with multiple partners remains the greatest risk factor for HIV in this region (5).

HIV/AIDS is one of the key challenges for the overall development of Ethiopia, as it has led to seven-year decrease in life expectancy and a greatly reduced workforce. The primary mode of HIV transmission in Ethiopia is heterosexual contact. Young women are more vulnerable to infection than young men; urban women are three times as likely to be infected as urban men. According to the 2007 single point HIV prevalence estimate of Ethiopia for the year 2010, the average adult HIV prevalence was 2.4% (1.9% males and 2.9% females). There were 1,216,908 total HIV positive populations in the country, Out of which 499,239 were males and 717,669 were females. 90,311 HIV positive pregnant women and there were 14,276 annual HIV positive births (4, 6).

For Addis Ababa according to 2007 single point HIV prevalence estimate, the total adult HIV prevalence for 2010 were 9.2% and 7.3% of males and 11% of females were HIV positive by then. Total HIV positive population was 210,306 of which, 85,780 males and 124,609 females. There were 8,796 HIV positive pregnant women and 967 annual HIV positive births in Addis Ababa. There were 22,926 new HIV infections (5)

2.2 Sexual and reproductive health care of women with HIV:

Despite their HIV status, all women require services that can help them make informed reproductive decisions and provide them with the contraceptive options when they desire; for women with HIV, access to such services could avert HIV infection in infants. Comprehensive prevention intended at HIV-infected persons should address issues related with the risk and sexual behavior of such individuals. On the other hand, the sexual and reproductive health (SRH)-related needs of people living with HIV/ AIDS (PLWHA) have not been sufficiently recognized in research and clinical care (9).

Many of the HIV positive women are young and have not yet had the number of children they wish. They are thus caught in a situation, where they both have to accept their HIV status and learn to live with it and have to consider the prospect of being responsible for raising a child, who is at severe risk of becoming orphaned and exposed to stigma and discrimination. The women's concerns about the Negative impact HIV might have on their unborn child thus outweigh their wish of having a child (11).

The beginning of potent antiretroviral therapy has allowed women with HIV to live longer and healthier lives. This Incident coupled with the dramatic reduction in mother-to-child transmission seen over the past decade has changed the quality of life for HIV-positive women. Implementing a new strategic plan for HIV prevention and a proactive approach to reproductive health care providers who care for these women is crucial. Studies in sub-Saharan Africa show that a significant proportion of HIV-positive women and men desire to have children (12).

The beginning of anti retroviral therapy has also resulted with the improvement of sexual activity of majority of PLWHA and the majority of them continue their normal sexual activity. A study from South Africa shows that 65% of the base line and 88% of the follow up ART patients were sexually active. A similar study in Addis Ababa has revealed

50.2% of ART patients were also sexually active. Efforts to provide sexual and reproductive health services to HIV-positive people are impeded worldwide by weak and fragmented health systems and by sexual taboos, gender inequality, and HIV stigma and discrimination. Meeting the sexual health needs of HIV positive people is essential to global HIV prevention efforts (13, 14)

A hospital based survey among HIV positive individuals in South Africa Cape Town 2005 had shown that, HIV positive women in ART programmes had significant unmet reproductive health care needs with condom and contraceptive use were relatively well addressed while services related to unintended pregnancy were found to be neglected in those ART units. On the other hand ART units are well suited to address RH services and meet the RH needs of HIV positive women because of their long term contact with patients (15).

A descriptive cross-sectional study conducted in two provinces of Northern Vietnam concerning induced abortion among HIV positive women has resulted that among women who had been pregnant while being aware of their HIV-positive status, 68% stated having had an induced abortion, whereas 22% of the women who had not been aware of their HIV status stated the same. Thus showing awareness of HIV-positive status is related with an increased tendency to have an induced abortion (10)

In Addis Ababa, Of the 417 women included in the study 59 reported as heard about Emergency contraception. Whereas, only 15(3.6%) of the women had used Emergency contraception (18). 40% of the HIV positive woman in Ukraine are at risk of unintended pregnancy and Use of effective post-natal contraception was low (17, 18).

2.3 Contraceptive utilization status and unmet need:

According to a study done using 2004 Lesotho Demographic and Health Survey, HIV-positive women have their need for contraception unmet in almost one-third of cases and

the majority of cases with unmet need for family planning were the poor and those not approving family planning (19).

Among those women attending compressive ART care in Kenya, use of contraception was low with only 44% being on a method and long term contraception use was also low among the respondents with their unmet need of family planning reaching 30 % (21).

2.4 Desire for children among HIV positive women:

A national survey done in Lesotho revealed that a significant proportion of HIV positive woman want to have a child in the future (38.7%). of this, 17.1% want a child within the next two years, which was higher than the proportion of HIV negative woman wanting a child within the next two years (10.8%). The desire of children for HIV positive women has a significant implication for the transmission of HIV to sexual partner and new born (19).

Data collected through national survey amongst people living with HIV in Argentina has explored that 55% of women and 30% of men with HIV have children after their HIV diagnosis and that half of those pregnancies were unintended. It is also shown that 73% of men and 64%of women do not want any new pregnancy. The majority of the reports condom use but dual protection (condom use plus another method) among those who do not want another pregnancy is found to be low. Users have reported being discouraged or blamed by the health professionals when they express their fertility intention (22).

2.5 Condom use among PLWHA

Individuals tend to increase their condom use after learning their HIV status. However, correct and consistent condom use over long periods is difficult for most people, and even the most well-intentioned may experience prevention very exasperating.

Some people living with HIV report not using condoms because their partners also have HIV or because they or their partners refuse to use the method and Some may be reluctant to disclose their HIV status or negotiate condom use with their partners for fear that it would raise suspicions about unfaithfulness, cause conflict or violence, or lead to the end of the relationship. Discordant couples may miss condoms when they think the HIV-positive partner's viral load is too low to permit transmission. This may not in fact be the case, however, and it also leaves them at risk of STIs if the couple is not monogamous and of unintended pregnancy if no other contraceptive method is used. Even highly motivated condom users may be discouraged by the cost or simple lack of availability of male or female condoms (25, 27).

2.6 Occurrence of Unintended pregnancy among HIV positive women:

Despite clear evidence of the importance of contraception as an HIV prevention strategy, the prevention of unintended pregnancies in women with HIV is given low priority among most HIV prevention interventions. Evidence (mostly from developed countries) indicates that even though pregnancy does not have an adverse effect on HIV disease progression, for a variety of reasons that are not entirely clear, HIV infection appears to place women who are pregnant at increased risk of complications and is regarded as an indirect cause of maternal death. It is estimated that HIV-positive pregnant women are at 1.5–2 times greater risk of maternal mortality (10, 28).

Unintended pregnancy combines two aspects of fertility: unwanted and mistimed pregnancies. Unintended pregnancies are high among HIV-positive women. Preventing unintended pregnancies among HIV-infected women is the most cost effective method of preventing and is a deceive intervention in preventing mother to child HIV transmit ion (29).

The results of a facility based cross-sectional survey conducted in Cape Town, South Africa has discovered that 11% of women in HIV care were become pregnant after they know their HIV status which all of these pregnancies were unintended (30).

The effects of unintended pregnancy for women with HIV infection include illness, poverty, and the risk of vertical transmission. Women who became pregnant just after enrollment has a higher CD4 counts at enrollment and has a slower CD4 decline than those who do not become pregnant. CD4 decline is faster after pregnancy than before for those who become pregnant. Women should be informed about the potential negative effect of pregnancy on their immunological status and should be offered contraception (31).

2.7 Contraception and PMTCT

According to the 2002 WHO and United nations recommendation the term PMTCT refers to the following comprehensive approaches: primary prevention of HIV infection; preventing unintended pregnancies among HIV-infected women; preventing HIV transmission from HIV-infected women to their children; and providing care for HIV-Infected mothers and their infants (32). Mother-to-child HIV transmission (MTCT) is responsible for the vast majority of HIV infection in children. HIV positive women have a 35% overall risk of transmitting HIV to their child during pregnancy delivery and breast-feeding. Only 15 countries in which Comprehensive prevention of mother-to-child transmission (PMTCT) programs have nearly be forgotten, account for more than 50% of the global prenatal HIV infection. Only nine percent of HIV positive pregnant woman are accessing the PMTCT programmes in resource-limited settings (33).

Use of contraception among HIV positive women prevents over 120, 000 unintended HIV positive births in South Africa annually. The effect of contraception can be achieved at a cost savings compared with PMTCT services. If unintended and Unwanted HIV positive births were prevented via contraceptive use rather than providing antiretroviral prophylaxis for HIV-positive pregnant women, the minimum annual cost savings to prevent just the unwanted HIV-positive births will range from \$26 000 in Vietnam to over \$2.2 million in South Africa. Contraceptive use averts more HIV-positive births and does so at lower costs than provision of nevirapine for PMTCT (27, 33, and 34).

In general the result of different studies have shown that the sexual and reproductive health care demand and future RH plan of HIV positive women has been improve since the beginning of HAART and has become almost corresponding with HIV negative women. But despite this, less attention is given for meeting these reproductive health care demands of HIV positive women as a strategy to the general HIV prevention. Hence, occurrence of unintended pregnancy is significant among HIV positive women. It is also our expectation that the findings generated from this study will contribute to understand the level of unmet reproductive health care needs and unintended pregnancy among HIV positive women and be useful in program designing to address the reproductive health care needs of HIV positive women. Hence, this study assessed unmet reproductive health care needs and occurrence of unintended pregnancy among HIV positive women with the following general and specific objectives.

3-OBJECTIVE OF THE STUDY

3.1 General objective

To assess unmet reproductive health care needs and occurrence of unintended pregnancy among HIV positive women in antiretroviral treatment units in Addis Ababa.

3.2 Specific objectives

- To assess unmet need for contraception among HIV positive women in the ART care units in Addis Ababa.
- To assess unmet need for safe termination of pregnancy among HIV positive women in ART units in Addis Ababa.
- To assess unmet reproductive counseling needs among HIV positive women in ART units in Addis Ababa.
- To determine the magnitude of occurrence of unintended pregnancy among HIV positive women on ART units.

4-METHODOLOGY

4.1 Study area and period

The study was undertaken from December 2010 to February 2011, in six governmental hospital ARV treatment units in Addis Ababa. Addis Ababa is the federal capital of Ethiopia and chartered city; having three layers of government: city government at the top, 10 Sub city administrations in the middle, and 99 Kebele administrations at the bottom. It is located between 8°55' and 9°05' North Latitude and between 38°40' and 38°50' East Longitude with a total area of 54,000 hectares. The city has a total population of more than 3 million (35). There are around 26 governmental and private hospitals and 25 health centers giving ART service in the city (36).

4.2 Study design

A facility based cross sectional study design that employed Quantitative data collection method supplemented by qualitative in-depth interview was carried out in Addis Ababa ARV treatment units. The in-depth interview was conducted in the same hospitals where the quantitative data were collected. It was undertaken among HIV positive women who were not included in the quantitative data, HIV positive women working in the ART and PMTCT units and among health care providers working in the ART and PMTCT units of the respective hospitals.

4.3 Source population

The source population comprised of all HIV positive woman who were on ART units during the study period.

4.4 Study population

The study population was HIV positive women of reproductive age group (15-49) who had started ART and had at least one visit to the selected hospital ARV treatment units during the study period.

Inclusion criteria

- Women on ART who were in the reproductive age group.

Exclusion criteria

- Women on ART who were seriously ill/ unable to speak and hear
- HIV positive women who were seen the first time in the ART clinic

4.5 Variables of the study:

Unmet reproductive health care needs and occurrence of unintended pregnancy were the main response/dependant variables while Explanatory/independent variables were Sociodemographic characteristics such as age, sex, literacy status, marital status; HIV related variables like duration since HIV diagnosis, recent CD4 count, months since ART started, partner's HIV status and others, knowledge and counseling about (safe abortion services, emergency contraception, PMTCT), duration of HIV screening, disclosure of HIV status for the partner, counseling on RH Issues and others; reproductive health variables like occurrence of unintended pregnancy, unmet need for contraception, no of live children she has, and so on.

4.6 Sample size determination

4.6.1 Quantitative method:

Determination of the sample size was according to a previous study, done in Cape Town, South Africa among HIV positive women, considering the prevalence of unintended pregnancy to be (30%) (30). As the prevalence of unintended pregnancy is expected to be lower in HIV positive women than women in the general population because of the counseling on family planning utilization, PMTCT, condom use and others, so to obtain the maximum sample size 4% margin of error and with 95% confidence level of certainty was taken.

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

$$n = \frac{(z_{\alpha/2})^2 P (1-P)}{(d)^2} = \frac{(1.96)^2 0.3(1-0.3)}{(0.04)^2}$$

n =the required sample size

p =the proportion of unintended pregnancy

$Z_{\alpha/2}$ =the critical value at 95% confidence level of certainty (1.96)

d =the margin of error between the sample and the population 4%. To compensate for non response rate due to unseen conditions 10% of the sample was added = 50.42~51, finally a total sample size of **555** of woman were sampled for the study.

4.6.2 Qualitative method:

For qualitative method the minimum number of people planned to be interviewed was ten. Finally selection continued until the saturation of the information and twelve participants consisting of eight HIV positive women and four health professionals were interviewed. Selection of participants of the in-depth interview was undertaken from the same hospitals where quantitative data was taken but participants of the qualitative interview were different from those who participated in the quantitative data collection.

4.7 Sampling procedure

4.7.1 Quantitative method

The study was conducted in six ART units of governmental hospitals giving ART services in Addis Ababa. The six hospitals were taken conveniently out of the total of nine governmental hospitals providing ART services based on number of clients they have, time that each facility needs to review the proposal, and geographical proximity to one another. Governmental hospitals were preferred to private hospitals and (or) health centers giving the same service because of the relatively long time ART service provision (are pioneers than others) in the governmental hospitals which will be helpful in observing a relatively higher pregnancy and reproductive history and cumulative experience of RH service and the relatively high number of ART enrolled women in those facilities.

The calculated sample size was used to recruit study subjects from the selected ARV treatment units proportional to the unit's client size. Systematic random sampling procedure was used to select eligible participants from each ARV units. Every “kth” women in the reproductive age group coming for the ART follow-up was selected.” K” was calculated by dividing expected total number of women coming for the ART follow up within a month prior to data collection in the six facilities (by referring the client's registration book) by the total sample size. Hence, every ninth woman waiting for ART was selected for the interview.

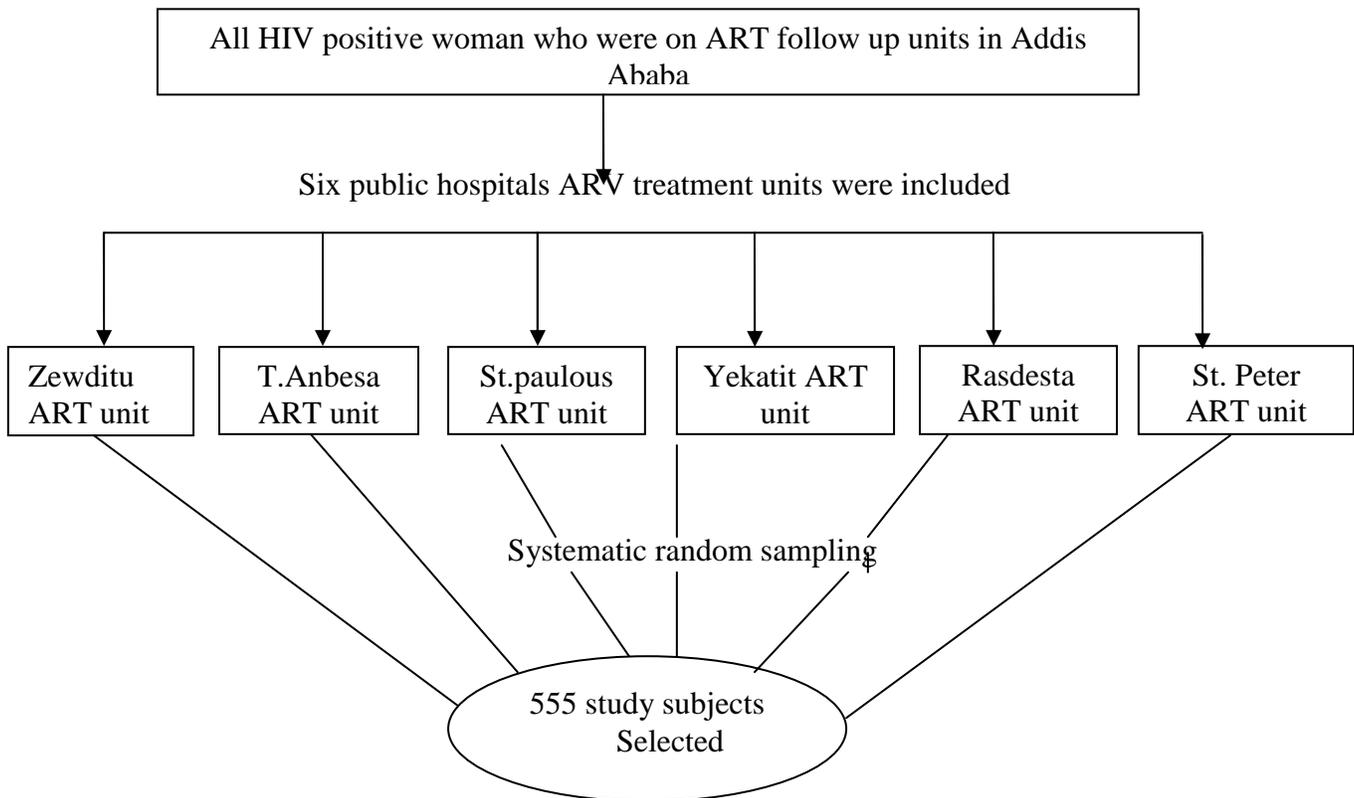


Figure 1: Schematic presentation of the sampling procedure used in the study, Addis Ababa, Ethiopia, 2011.

4.7.2 Qualitative method

For the in-depth interview, purposive sampling procedure was applied to select the study participants using different criteria such as marital status, age number of children, occupation, and profession.

4.8 Data collection and instrument

4.8.1 Quantitative data

The quantitative data was collected using structured questioner. It was prepared in English, translated in to Amharic, for the data collection purpose, and then retranslated back in to English to check its consistency. The questioner was field by 6 nurses and other mid level health workers working in the ART units of the respective hospitals.

4.8.2 Qualitative data

Open ended semi-structured interviewer guide was used for qualitative data collection i.e. in-depth interview.

4.9 Data analysis and processing

All the data was entered and cleaned using EPI Info version 3.1.5 and was exported in to and analyzed using SPSS version 11 for windows. The descriptive analysis such as proportions, percentages, means, and measures of dispersion, tables, and graphs were used to describe the data and bivariate analysis for association Sociodemographic, reproductive and HIV related variables with occurrence of unintended pregnancy and unmet need for family planning were used. Logistic regression model was employed to control confounding variables. Variables included in the model were those significantly associated to at least one of these outcome variables. For the qualitative data thematic analysis was used.

4.10 Data quality management

To ensure the quality of the data first training of the data collectors and their supervisors was undertaken for two days by the principal investigator on the objectives, relevance of the study, methods interviewing, confidentiality of information and informed consent. Six counselors working in the respective hospital ART units were used as data collectors. Three supervisors who had first degree in health had supervised the data collection. They closely followed the data collection throughout the data collection period along with the principal investigator. All the questioners were checked each night on the same day, and inconsistencies and errors were corrected accordingly.

For the qualitative data quality assurance, the interview was rerecorded in the tape recorder and the recorded information was transcribed in to written form word by word as described by the interviewee and then the word was transcribed in to English. The data was then categorized in to different codes paragraph by paragraph and these codes were refined and categorized into major themes.

Pre testing of the questionnaire

The structured questioner was pretested in the ART units selected for the study and participants who were involved in the pretest were excluded in the latter data collection. The pre test was done on 56 women who were about 10% of the total sample size. The questioner was then assessed for its clarity, completeness and its relevance. Some difficult questions to ask were rephrased, and some unnecessary questions and skip patterns were corrected. While some ideas necessary were added.

4.11 Ethical consideration

Written ethical clearance was obtained from the Research and Ethical committee (REC) of the School of Public Health; also approved by the research and ethical committee of the Addis Ababa Health Burro and St.peter and St.paul hospitals. First A formal letter was written to the Addis Ababa Regional Health Bureau from the School of Public Health and then to the hospitals from the Addis Ababa Health Bureau. During the data collection, informed consent was obtained from each respondent by first explaining the objectives of the study and the rights of the respondent to participate or not in the study.

All interviews were taken in a place that keeps privacy and time chosen by the respondents. To maintain confidentiality identifiers like names or codes were not taken in the questioner. More over the same councilor working in the ART treatment units was used as data collector this was helpful in ensuring confidentiality during data collection since respondents were not exposed to a different person. The information given by the respondents was kept by placing data in a safe place after it had been collected and was used for the purpose of the study only. Finally, dissemination of the results of the study will not be in referent with specific respondent but to the general source population.

4.12 Dissemination of the results

The findings of the study will be presented at the School of Public Health, College of Health Sciences. Besides, a copy of the research findings will be given for the sponsor and other responsible bodies. Publication of the findings will also be considered.

4.12 Standard and operational definitions

Contraceptive utilization: practice of using the birth control method(s).

Fertility intention: who have a desire of child and intend to have at least one child in the future.

Induced abortion: is the deliberate termination of pregnancy without medical reason(s) at a gestational age below 28 weeks.

Reproductive health care: is the constellation of methods, techniques, and services such as contraception, abortion, condom, and the information on pregnancy, child birth, contraceptive method choice, and PMTCT, That contribute to reproductive health and well-being through preventing unintended pregnancy ensuring informed reproductive choice.

Sexually active (in union) woman: HIV positive woman who is currently married or has cohabiting partner

Unintended pregnancy: a pregnancy that is mistimed or unwanted

Unmet need for contraception: The number of women on ART, who are sexually active currently, and are fecund, who want to use contraception to limit or space their birth but are not using any form of contraception, and those currently pregnant 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 amenorrhoeic, 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 amenorrhoeic, who are not using any method of contraception and say they want to wait two or more years before their next birth.

Unmet reproductive counseling needs: Women who want to have a child and want to talk with their HIV provider about pregnancy, but have not.

Woman who are on ART follow up care: Women who at least one visit to the selected ART treatment unit for receiving ART.

5 RESULTS OF THE STUDY

5.1 Quantitative Result

5.1 Over view of Socio-Demographic Characteristics of the Study Population

Out of 555 eligible clients seen in the ARV treatment units during the study period, 548 agreed to participate in the study, giving a response rate of 98.7%. Many of the respondents were from Zewditu memorial hospital ART treatment unit 178 (32%) and the smallest were from St. Peter hospital ART treatment unit 44 (8%); while 118 (21%), 89 (16%), 72 (13%), and 54 (10%) of participants were taken from St.Paul, Yekatit12, Black lion, and Ras Desta hospitals respectively.

Regarding the Sociodemographic characteristics of the study participants the age range of the study participants was 15-49 years. One hundred ninety two (35%) of the respondents were in the age group of 30-34. The mean age of the respondents was 30.98 and age standard deviations were 5.528. The majority of the respondents 363 (66.2%) were Orthodox christens by religion. Two hundred forty seven (45.1%) of the study participants were from the Amhara ethnicity and 149 (27.2%) were Oromos. Many of the respondents were illiterate or only able to read and write 265 (48.4%).

Concerning the marital status of the respondents, the majority were married or in relationship 373(68%) while 136(24.8%) were divorced or widowed and 39(7.2%) were never married. Two hundred forty two (44.2%) of the study participants were government or privately employed while 50(9.1%) were jobless, (Table 1).

Table 1: Sociodemographic Characteristics of women attending ART services and care units in Addis Ababa, Ethiopia, April, 2011

Characteristics	Frequency n=548	%
Age (years)		
15-19	8	1.5
20-24	51	9.3
25-29	153	27.9
30-34	192	35
35-39	107	19.5
40-44	25	4.6
45-49	12	2.2
Mean±SD	30.9±5.5	
Ethnicity		
Amhara	247	45.1
Oromo	149	27.2
Gurage	68	12.4
Tigire	75	13.7
Other	9	1.6
Religion		
Orthodox	363	66.2
Other christens	109	19.9
Muslim	76	13.9
Educational status		
Primary education	196	35.8
Secondary education	192	35
Able to read and write/no grade	69	12.6
Illiterate	61	11.1
Post secondary education	30	5.5
Marital status		
Married/cohabiting	373	68
divorced/widowed	136	24.8
Never married	39	7.2
Occupational status		
Private employ	173	31.6
House wife	141	25.7
Daily laborer	75	13.7
Governmental employ	69	12.6
Jobless	50	9.1
Other	40	7.3

5.1.2 HIV related characteristics of women attending the ARV treatment units

Two hundred ninety two (53.3%) of woman had stayed more than 5 years since they came to know their HIV status and 228 (41.6%) had stayed for three years or more beginning their ARV treatment. The median duration of HIV diagnosis and the median duration since the start of HAART were 60 and 36 months, respectively.

Recent CD4 count was ≥ 200 cells/mm³ for 478 (87.2%) of the respondents. While 70 (12.8%) were having CD4 count of < 200 cells/mm³ women had CD4 count of 10 (1.8). Of three hundred sixty nine (67.3%) women in the study who were married or in relationship, three hundred twenty one (87%) have disclosed their HIV sera status to their partner.

A total of sixty nine (18.7%) of the women in the study stated that they don't know the HIV status of their partners; among whom 10.6% explained that they don't know whether their partners were tested or not and 8.1% of the partners were not tested. Two hundred forty six (82%) of those who had tested partners had concordant HIV test results, while 53 (17.7%) had discordant results. More than three fourth (80%) of concordance partners had started HAART. Four hundred twenty seven (78%) of the women participated in the study had reported to have live children; of them 325 (59.3%) had one or two live children (Table 2).

Table 2: HIV related features of women living with HIV in ART units Addis Ababa, Ethiopia, April 2011.

Characteristics	Frequency n=548	%
Months since HIV diagnosis		
< 60	256	46.7
≥ 60	292	53.3
Months of ART unit attendance duration		
< 36	320	58.4
≥ 36	228	41.6
Recent CD4 count (cells/mm3)		
<200	70	12.8
200	10	1.8
≥ 200	478	87.2
Disclosure of HIV status for the partner		
	n=369	
Yes	321	87
No	48	13
Partner get tested		
	n=369	
Yes	300	81.3
No	30	8.1
I don't know	39	10.6
HIV test status of the partner		
	n=300	
Positive	247	82.3
Negative	53	17.7
Partner started ART		
	n=246	
Yes	197	80.1
No	38	15.4
I don't know	11	4.5
Number of live children		
1-2	325	59.3
≥ 3	102	18.7

5.1.3 Sexual behavior of and condom use characteristics.

Four hundred nine (74.5%) of the participant women were sexually active within the past year prior to the study; of whom 294 (72%) were having sex with regular partners and 114 (28%) with non regular partner(s). Condom use with non regular partner(s) was reported to be 57 (50%). Out of those who reported condom use with their non regular partner(s), only 35 (61.4%) used condom regularly, whereas, 57(38.6%) reported irregular use of condom. The most common reason mentioned by the participants for none use of condom was partner's dislike for condom use 28(51.9%).

One hundred forty three (26.1%) of the women in the study have had more than one sexual partner after they learned their HIV status while three hundred fifty eight (65.3%) had at least one sexual partner after being HIV positive. One hundred thirty two (24.1%) of the women in the study have had sign symptoms of STI within the last nine months prior to the study; Out of those who had STI signs and symptoms 80 (60.6%) of them have got their STI treatment from the ART unit (Table 3).

Table 3: Sexual behavior and condom utilization characteristic of HIV positive women in the ART units in Addis Ababa, Ethiopia, April 2011

Characteristics	Frequency n=548	%
Sex with in the past twelve months		
Yes	409	74.6
No	139	25.4
With whom you had sex		
	n=409	
Regular sexual partner	295	72.1
None regular sexual partner	114	27.9
Condom use with non regular partner		
	n=144	
Yes	57	50
No	57	50
Reasons for none condom use with none regular partner		
	n=57	
Partner is concordant	14	25
partner doesn't want	28	49
I don't like it	10	18
I want to give birth	5	8
Time of condom use with none regular partner		
	n=57	
All the time I had sex	35	61.4
Sometimes I had sex	22	38.6
Number of sexual partner(s) after HIV		
One	358	65.30
More than one	143	26.10
None	47	8.60
Sign symptom of STI within the past nine months		
Yes	132	24.10
No	416	75.90
Place of treatment for STI		
	n=132	
ART unit	80	60.60
Other governmental institute	24	18.20
Private institute	13	9.80
Traditional healer	6	4.50
I wasn't treated	9	6.90

5.1.4 Contraceptive utilization of HIV positive women

One hundred eighty nine (34.5%) of the women who participated in the study were using at least one method of contraception. More than half of the women in the study used condom as a method of contraception 112(60%). Injectables and pills were the other methods most used next to condom; 74 (39%), 28 (15%), respectively. On the other hand, permanent method was the least used by the women 3 (1.6%). 13(7%) of women were using traditional methods.

Table 4: Methods of contraception used by HIV positive women in the ART units in Addis Ababa, Ethiopia, April 2011

Variables	Frequency n=188	%
Current contraceptive utilization	n=548	
Yes	188	34.50
No	360	65.50
Condom		
Yes	112	59.60
No	76	40.40
Inject able		
Yes	74	39.40
No	114	60.60
Pill		
Yes	28	14.90
No	160	85.10
IUCD		
Yes	8	4.30
No	180	95.70
Norplant		
Yes	16	8.50
No	171	91.00
Tubal ligation		
Yes	3	1.60
No	185	98.40
Rhythm		
Yes	13	7
No	175	93
Withdrawal		
Yes	2	1
No	186	99

5.1.5 Unmet reproductive health care needs

5.1.5.1. Unmet need for contraception

Sexually active woman comprised of 373 (68%) of the women participated in the study. One hundred sixty one (43.2%) of the sexually active woman were using a form of contraception while 212 (56.8%) were not using any form of contraceptive during the study period.

Among the none-user sexually active woman, 91 (24%) were pregnant or aminorrheic and 121 (32.8%) were not pregnant or amenorrhoeic. Fifty (13%) of the pregnancies were intended while mis-timed and unwanted pregnancies contribute to 13(8%), 10 (3%) of the current pregnancies, respectively.

One hundred threaten (30.3%) of none user sexually active women, who were neither pregnant nor aminorrheic, were fecund while 8 (2%) were in fecund. Among none pregnant, fecund, sexually active women who were not using contraception, 62 (16.6%), 13 (3.5%) and 38 (10.2%) want to have birth latter, want no more birth, and want another birth soon respectively.

Unmet need for contraception comprises of the proportion of pregnant women whose pregnancy was mis timed or unwanted and the proportion of none pregnant, fecund woman who were not using any form of contraception but do not want any birth or want birth latter. Therefore, unmet need for contraception was:

$8\%+3\%+16.6\%+3.5\%=31.1\%$.

Unmet need for spacing is the proportion of aminorrheic or pregnant women whose pregnancy was mistimed and proportion of neither pregnant nor aminorrheic and fecund women who did not use any form of contraception but plan to have another birth later. Thus, unmet need for spacing was: $8.3\%+16.6\%=24.9\%$.

Unmet need for limiting is the proportion of pregnant women whose pregnancy is unwanted and proportion of neither pregnant nor aminorrheic and fecund women who did not used any form of contraception but plan to have no more birth. Thus, unmet need for limiting was: $2.7\%+3.5\%=6.2\%$ (Figure 2).

Unmet need for modern contraception was seen in the same way as unmet need for any method but with the addition of sexually active women using traditional methods; 14 (3.8%). As a result, **34.9%** was unmet need for modern contraception; comprising 8.1% for limiting and 26.8% for spacing.

The contraceptive prevalence rate (CPR) is the number of sexually active women using contraception/total number of women in the study*100; $161/548*100=29.4\%$.

Total demand for contraception, (CPR+unmet need): $29.4\%+31.1\% =60.5\%$. Demand Satisfied, for contraception, (met need/total demand); $= 29.4/60.5*100 = 48.6\%$.

In fecund woman, women who desired to give birth soon and pregnant women whose pregnancy were reported as intentional and woman who were pregnant while on a method were excluded in the evaluation of the unmet need.

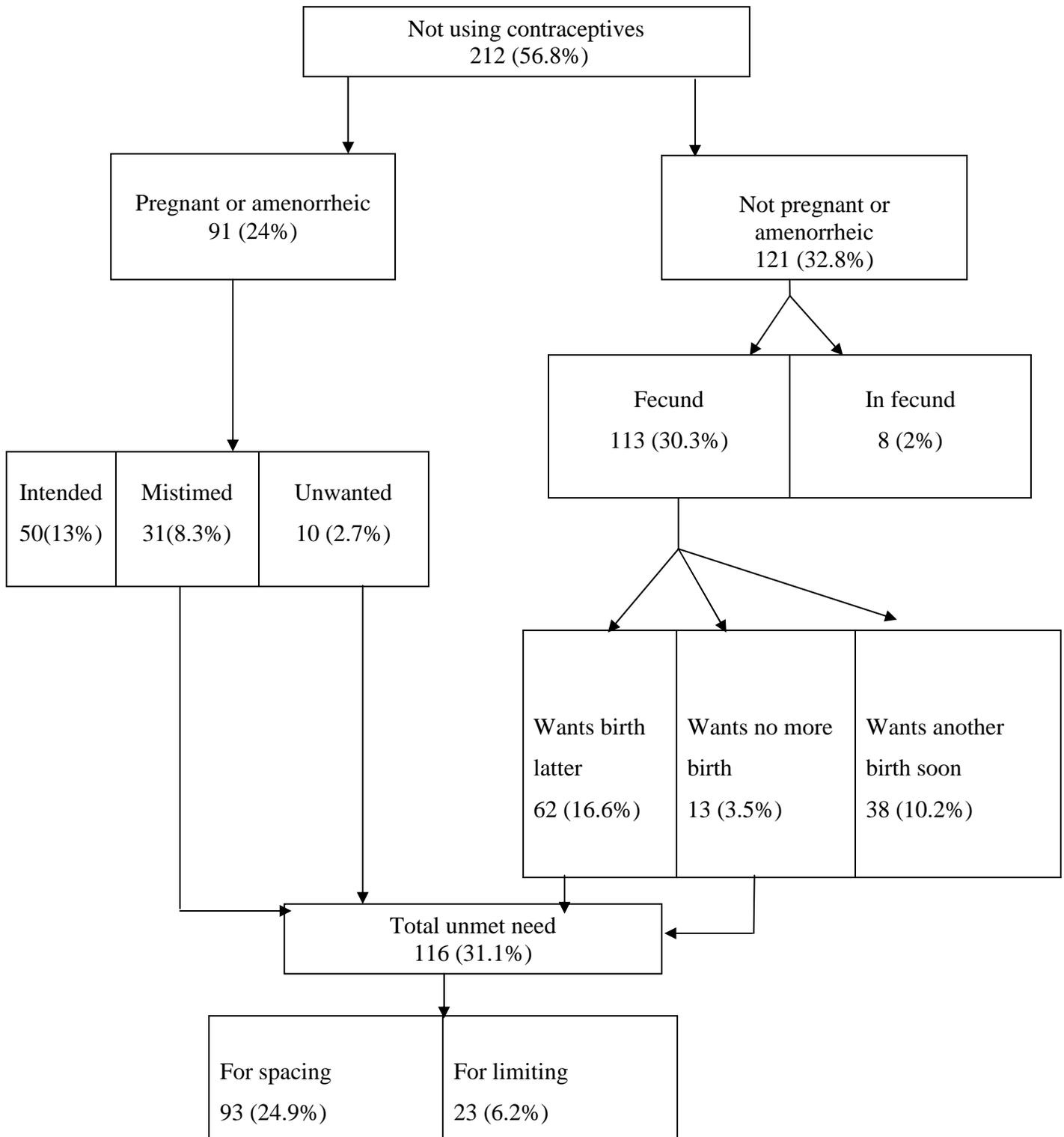


Figure 2: Components of unmet need for contraception among sexually active women not using contraception in ART units: Addis Ababa, Ethiopia, April, 2011

5.1.6 Method of contraception used by sexually active women

One hundred one (27%) of women used semi permanent or permanent methods, while, condom was used by 94 (25.2%) of women. Dual method of contraception was practiced by 50 (13.4%) of the women while 44 (11.8%) used condom alone. Sterilization was used only by 2(0.5%) of sexually active women while 14 (3.8%) used only traditional methods (Table5).

Table 5: Sexually active women and type of contraception they used in the ART follow up units Addis Ababa, Ethiopia, 2011 N=373

Characteristics	Number	Percent
using any contraceptive method	161	43.2
Not using any contraceptive	212	56.8
Condom alone	44	27.4
Other modern methods	101	62.7
Dual contraceptive	50	31
Traditional methods	14	8.7
Sterilization	2	1.2

5.1.7 Safe termination of pregnancy and emergency contraception

One hundred seventeen (21.4%) of HIV positive women who have participated in the study had ever induced abortion after they learned their HIV status. All of those women who induced abortion had the need to use safe abortion services but 74 (63.2%) of the women who needed to have safe abortion service have used it. The most common mentioned reason for not using safe abortion services among those who had induced abortion after was due to lack of knowledge about where to access the service 22 (51.2%) (Table 6).

In this study, unmet need for the use of safe abortion services is treated as women who had induced abortion and want to use safe abortion services for but did not used it. Thus the proportion of unmet need for safe abortion services is 37%.

The proportion of women in the study who had the knowledge of emergency contraception were found to be 233 (42.5%), while, 315 (57.5%) didn't have the knowledge of emergency contraception. Thirty eight (16%) of the women who had the knowledge of EC had ever used it (Table 6).

Table 6: Use of safe abortion services and emergency contraception among HIV positive women in the ART treatment units, Addis, Ababa, Ethiopia, April, 2011

Variables	Frequency n=548	%
Ever induce abortion after being HIV+		
Yes	117	21.4
No	431	78.6
Use of safe abortion service		
	n=117	
Yes	74	63.2
No	43	36.8
I don't want to use	0	0
Reasons for not using safe abortion services		
	n=43	
I don't have the knowledge of safe abortion	8	18.6
I don't know where to access	22	51.2
I don't know the benefit of safe abortion services	7	16.3
fear of stigma and discrimination	6	14
Knowledge of emergency contraception		
Yes	233	42.5
No	315	57.5
Ever use of emergency contraception		
	n=233	
Yes	38	16.3
No	195	83.7

5.1.8 Unmet reproductive health care counseling needs

A total of three hundred seventy (67.5%) of women participated in the study have disclosed their intention of discussing RH issues with their providers. In fact, 285 (52%) of them had ever discussed RH issues with their provider beginning their ART unit visit.

Family planning and condom were the RH issues most discussed with the providers as reported by 222 (78%) respondents. While safe TOP 25(8.8%) and EC 30 (11%) were least ever discussed with the providers.

One hundred (35.1%) of the women who had received these RH discussions did not think that the discussion was complete and satisfactory. Regular counseling was reported by 48 (16.7%) of the women who had received reproductive health care counseling. Unmet need for discussion of those reproductive health issues is the proportion of women who wanted to have those discussions over (/) women who had discussed on the issues (Table 7).

Table 7: Counseling on reproductive health care issues among women in the ART units Addis Ababa, Ethiopia, April 2011.

Characteristics	Frequency n=285	%
Need of RH issue discussion	n=548	
Yes	370	67.5
No	178	32.5
Ever discussion of RH issues with the provider		
Yes	285	52
NO	263	48
Family planning and condom		
Yes	222	78
No	63	22
Emergency Contraception		
Yes	30	11
No	255	89
Fertility desire		
Yes	79	27.7
No	206	72.3
PMTCT		
Yes	145	50.9
No	140	49.1
Pregnancy and HIV		
Yes	68	23.9
No	217	76.1
Safe termination of pregnancy		
Yes	25	8.8
No	260	91.2
When counseled		
Regularly	48	16.7
sometimes/very rarely	72	25.3
screening for ARV eligibility	165	58
RH issues discussed		
Satisfactory	180	63.2
Not satisfactory	100	35.1
I don't know	5	1.7

5.1.9 Occurrence of unintended pregnancy

Three hundred twenty (58.4%) of the participants of this study reported ever pregnancy after being aware of their HIV status; out of these pregnancies, 147(46%) were unintended. and still of these unintended pregnancies, 125(38%) were mistimed and 22 (7%) were unwanted (Table 8).

Table 8: Occurrence of unintended pregnancy among HIV positive women in ART units Addis Ababa, Ethiopia, April, 2011

Characteristics	Frequency n=548	%
Ever pregnancy after being HIV+		
Yes	320	58.4
No	228	41.6
Timing of pregnancy after being HIV+		
I intend to be pregnant by then	173	54.0
I don't want to be pregnant by then	125	39.0
I didn't want to be pregnant then or at any time	22	7.0

5.1.9.1 Reasons for failure to avoid unintended pregnancy

The most common reasons mentioned by the participants of this study for failure to avoid unintended pregnancy were contraceptive failure, husband disapproval and lack of awareness on avoiding unintended pregnancy, comprising 61(36%), 27(16.5%), 26(16%) in order (Figure 3).

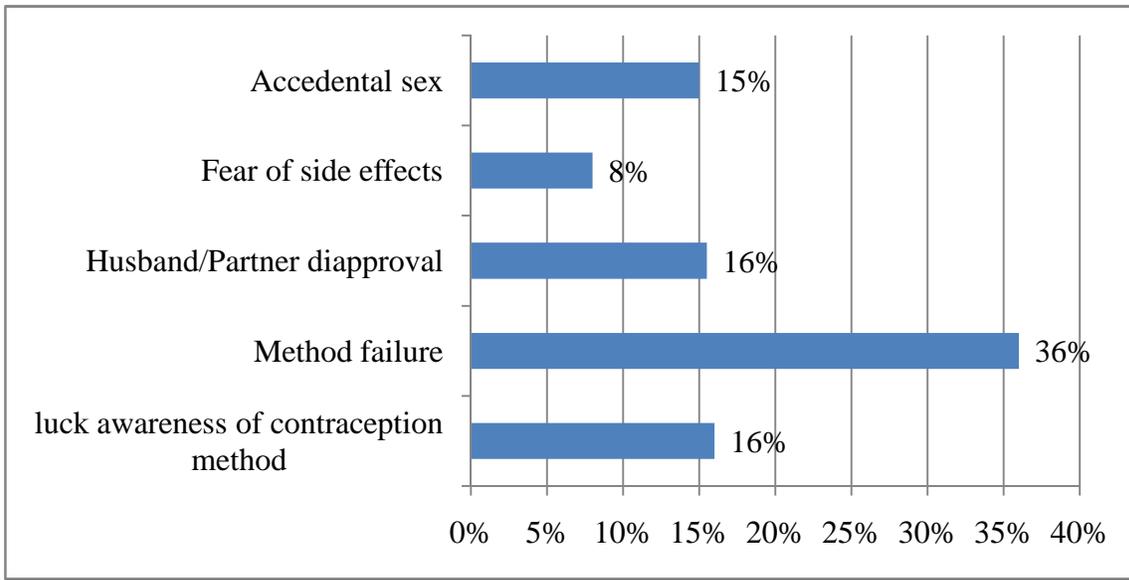


Figure 3: Reasons for failure to avoid unintended pregnancy among HIV positive woman in the ART care units Addis Ababa, Ethiopia, April 2011

5.1.10 Factors associated with unmet contraceptive need

From bivariate analysis shown in table 9, the characteristics of staying for less than 36 months since the start of ART, having HIV negative partner and experience of unintended pregnancy were significantly and positively associated with unmet need of family planning ($P \leq 0.05$). Recent CD4 count >200 is significantly and negatively associated with unmet need for contraception. Whereas, age, education, ever reproductive and family planning counseling did not have significant association with having unmet contraceptive need ($p > 0.05$).

Table 9: Association of unmet need for family planning with selected variables among HIV positive women in the ART units, Addis Ababa, Ethiopia, April, 2011

Characteristics	Contraceptive need		Crude OR(95%CI)
	Unmet need n (%)	Met need n (%)	
Age			
15-24	10(16.9)	49(83)	3.57(0.74-17.3)
25-39	47(10.4)	405(89.6)	2.03(0.47-8.72)
40-49	2(5.4)	35(94.6)	1
Educational level			
Illiterate/can read and write primary/secondary	22(16.9)	108(83)	1.83(0.51-6.58)
Post secondary	34(8.8)	354(91.2)	0.86(0.25-3.00)
	3(10)	27(90)	1
Reproductive and family planning counseling			
No	33(11)	263(88.9)	1.09(.63-1.88)
Yes	26(10.3)	226(89.7)	1
Months since ART started			
<36	43(13.4)	277(86.6)	2.06(1.13-3.75)*
≥36	16(7)	212(93)	1
Recent CD4 cell count			
≤ 200	14(17.5)	66(82.5)	1
> 200	45(9.6)	423(90.4)	0.51(0.26-0.96)*
HIV status of the partner			
Negative	13(24.5)	40(75.5)	2.40(1.17-5.10)*
Positive	29(11.7)	218(88.3)	1
Occurrence of unintended pregnancy			
Yes	41(27.9)	106(72)	8.23(4.54-14.91)*
No	18(4.5)	383(95.5)	1

*Statistically significant association

5.1.10.1 Multivariate analysis for unmet need of contraception

Recent CD4 count of >200 with (OR, 0.51:95% CI: 0.26-0.96) was significantly associated with decreased odds of unmet need for contraception. Experience of unintended pregnancy

among women in the study was associated with significantly higher odds of unmet contraceptive need recently as compared to those who had no experience of unintended pregnancy (adjusted OR :10.12, 95%CI: 4.6-22.3). Women who had a discordant partner were having significantly increased odds of unmet need compared with women with a concordant partner (adjusted OR: 2.42; 95% CI: 1.04-5.64). Length of ART initiation less than 36 months was not significantly associated with having unmet need of contraception (Table 10).

Table 10: Multivariate analysis of variables associated with unmet need for contraception among HIV positive women in the ART units Addis Ababa, Ethiopia, April, 2011.

Characteristics	Contraceptive Need		Adjusted OR(95%CI)
	Unmet n (%)	Met n (%)	
Months since ART started			
<36	43 (13.4)	277 (86.6)	1.68 (0.75-3.79)
≥36	16 (7)	212 (93)	1
Recent CD4 cell count			
≤200	14 (17.5)	66 (82.5)	1
>200	45 (9.6)	423 (90.4)	0.26 (.09-0.70)*
HIV status of the partner			
Negative	13 (24.5)	40 (75.5)	2.42 (1.04-5.64)*
Positive	29 (11.7)	218 (88)	1
Occurrence of unintended pregnancy			
Yes	41 (27.9)	106 (72)	10.12 (4.6-22.3)*
No	18 (4.5)	383 (95.5)	1

*Statistically significant association

5.1.11 Factors associated with occurrence of unintended pregnancy

Bivariate analysis of table 11 shows that, the variables age, marital status, ever use of method of contraception, unmet contraceptive need and ever use of emergency contraception were significantly associated with increased odds of occurrence of unintended pregnancy.

There was no statistically significant difference between the proportion of those who experienced unintended pregnancy among respondents who were educated

(postsecondary) and those who were illiterate or can read and write. Similar finding was seen for having regular counseling on contraception. No statistically significant difference was found between those who were receiving counseling on contraception regularly and those with no regular contraception counseling on facing unintended pregnancy.

Table 11: Bivariate analysis of selected variables for the occurrence of unintended pregnancy among HIV positive women in the ART units Addis Ababa, Ethiopia, April, 2011

Characteristics	Pregnancy intendedness		Crud OR(95%CI)
	Unintended; n (%)	Intended; n (%)	
Age			
15-24	21(35.6)	38(64.4)	3.54(1.12-10.4)*
25-39	121(26.8)	331(73.2)	2.34(0.89-6.14)
40-49	5(13.5)	32(86.5)	1
Marital status			
Married/cohabiting	112(30)	261(70)	1.72(1.12-2.64)*
Others	35(20)	140(80)	1
Education			
Illiterate/read and write	43(33.1)	87(66.9)	0.98(0.43-2.30)
Primary or secondary	94(24.2)	294(75.8)	0.27(0.64-0.30)
Postsecondary	10(33.3)	20(66.7)	1
Ever use of method of contraception			
No	94(33.1)	190(66.9)	1.97(1.33-2.91)*
Yes	53(20.1)	221(79.9)	1
Regular counseling on methods			
Yes	12(27.3)	32(72.7)	1
No	131(27.4)	347(72.6)	1.01(0.50-2.01)
Contraceptive need			
Met	106(21.7)	383(78.3)	1
Unmet	41(69.5)	18(30.5)	8.23(4.54-14.9)*
Ever Use of Emergency contraception			
Yes	19(50)	19(50)	4.13(2.00-8.56)*
No	38(19.5)	157(80.5)	1

*Statistically significant association

5.1.11.1 Multivariate analysis of associated factors with occurrence of unintended pregnancy

Age, marital status and ever use of method of contraception do not have significant association with occurrence of unintended pregnancy. Whereas, unmet need for contraception and ever use of emergency contraception were significantly associated with increased odds of experiencing unintended pregnancy among women participated in the study. Those who were having unmet need for contraception have a significantly increased odds of experiencing unintended pregnancy when compared with those whose contraceptive need was met (OR: 14.88, 95% CI: 4.8-46.1); similarly, Women participated in the study who had ever used emergency contraception were having increased odds of experiencing unintended pregnancy when compared with women who do not have experience of emergency contraception (OR: 4.13, 95% CI: 1.86-9.19) (Table 12).

Table 12: Multi varate analysis of variables associated with the occurrence of unintended pregnancy among HIV positive women in the ART units Addis Ababa, Ethiopia, 2011

Characteristics	Pregnancy intendedness		Adjusted OR(95%CI)
	Unintended n (%)	Intended n (%)	
Age			
15-24	21(35.6)	38(64.4)	1.91(0.17-21.23)
25-39	121(26.8)	331(73.2)	1.85(.22-16.31)
40-49	5(13.5)	32(86.5)	1
Marital status			
Married/cohabiting	112(30)	261(70)	0.72(0.34-1.53)
Others	35(20)	140(80)	1
Ever use of method of contraception			
No	94(33.1)	190(66.9)	0.56(.258-1.23)
Yes	53(20.1)	221(79.9)	1
Contraceptive need			
Met	106(21.7)	383(78.3)	1
Unmet	41(69.5)	18(30.5)	14.88(4.81-46.10)*
Ever Use of Emergency contraception			
Yes	19(50)	19(50)	4.13(1.86-9.19)*
No	38(19.5)	157(80.5)	1

*Statistically significant association

5.2 Qualitative study result

Twelve respondents comprising of eight HIV positive women and four health professionals working in the ART and PMTCT unites participated in the interview. Respondents were having different socio economic, health, and professional backgrounds. Among eight of the HIV positive women who have participated in study, four were expert patients working in the ART and PMTCT clinics as adherence supporters; while four of them were following their ART in the respective hospitals. Regarding the health professionals composition, there were three nurses and a doctor who were interviewed.

5.2.1 Counseling on and utilization of RH services in the ART units

Respondents of the study reported RH counseling as not given attention in the ART follow up units. Most described that they have not ever received counseling on RH issues from their ART providers due to a number of factors including shortage of doctors to the number of patients among others.

Women explained:

“Since I started attending at this clinic, I have not had the occasion of RH issue discussion with my doctor and I haven’t asked him too. This was mainly due to the shortage of doctors compared with the number of patients. I would say that the burden of treating many patients is a contributing factor for us not to receive advises among other things. In fact, our doctors usually ask us weather we took our medications appropriately or not and what new things have happened to us concerning our health.”

31 years old married women

Some participants reported that some health professionals discouraged HIV-positive women from having children; as a result, these women were not encouraged to raise their intention of having children in front of them. This view is supported by what a woman had to say in the following manner:

“When I asked how would I go about having a child it’s like they have a blank look on their face and then the first thing they usually tell me is, “Well, you know your child might be HIV positive. The baby might just die before it’s born, and just all the negative things. There are chances for the baby not being HIV positive; finally you are the one who decides on the chance of your baby.”

28 years old married women with no children

Some of the health professionals working in the ART unit didn’t feel comfort about the idea of having child among their clients. Being pregnant will hurt the health of their clients rather than the risk of MTCT for the new born.

“First of I am happy if HIV positive mothers don’t get pregnant. Though it is evident that we have got HIV negative children from these mothers, child birth itself has been a difficult circumstance when it is viewed from the impact it has on the mothers’ health. Many of these women developed allergies like symptoms and their weight reduces much after they give birth. More than that, there were some who died after they gave birth.”

31 years old adherence supporter in the ART unit

Respondents explained sex of their doctors and the inconsistency of visiting the same doctor from time to time as barriers to discuss RH issues openly.

“When I came here, most of the time, I encounter a new doctor. I didn’t have any opportunity of meeting a familiar doctor twice or more in this ART clinic. Hence, this circumstance wouldn’t have given me the confidence to disclose some of my issues openly with my doctor. Besides, we females are not encouraged in our tradition to talk openly about contraception, pregnancy or other private issues if our doctor is specially a male”

31 years old female, single

On the side of counselors, family planning and condom utilization counseling were provided for those who need to use a method of contraception; however, emergency contraception and use of safe abortion services were not raised for the reason that some counselors believe that giving counseling on those issues is encouraging them to have unprotected sex and unplanned births. A nurse counselor from the ART clinic explained:

“To tell you frankly, the issues of safe abortion services and emergency contraception were very rarely (almost none) raised in our counseling sections. This is due to the strong opinion I have that advising patients in this regard would mean directing them to wrong direction.”

34 years old female nurse

Counseling on the use of condom and other contraception's is usually given for those women who have got partners; otherwise, women wouldn't be counseled on these issues unless they ask for it. This view is congruent with what a woman had to say in the following manner:

“I don't have any partner at the moment. However, in the future I hope I will be having a boy friend/ a partner with a similar status like mine. The media is my main source of information on RH issues such as family planning, safe abortion service, and emergency contraception to mention just a few. My doctor hasn't ever counseled me on those issues. I think this is because I don't have any partner at the moment and I didn't ask him too for this service is rendered for those who have partners.”

Single 10th grade and with no children

Knowledge emergency contraception and safe termination of pregnancy is almost non-existent among the participants of the study. A woman with unintended pregnancy responded as:

“Of course, I became pregnant unintentionally. It’s because I forgot to take my injection for more than two weeks. To discontinue this pregnancy I didn’t try anything afterwards for I didn’t know anything about emergency contraception and/or safe abortion services.”

Pregnant 28 years old married a mother of two children

5.2.2 Contraceptive utilization and unmet need

Sometimes HIV positive women face a number of problems attributed to providers’ ignorance when these women requested to use family planning methods. Likewise, gaps were seen in the counseling of contraceptives especially the permanent methods as some of the health professionals reported. These are shown in the following reports:

“I gave birth through operations six months ago at the hospital where I attend ART service. I came back at the hospital just after 45 days hoping to receive vaccination for my baby and family planning for myself. When I asked the nurse at the family planning unit that I needed a method of contraception she said “it is early since you gave birth through operations; thus, you should wait at least for three months before you start the injections.” Nevertheless, I tried to explain for her that I couldn’t wait till then for it was difficult to discuss the issue with my husband. I explained to her that I didn’t want another pregnancy in my situation and pleaded for the injections. Despite all these, the nurse didn’t seem to hear me and she insisted and said “come after three months.” After realizing that it was impossible to receive the service at that hospital I returned home. After two days I went to a health center and got the injection.”

Married 25 years old mother

Disapproval by husbands was found as one of the challenges when women want to use contraception. When women decided to plan their birth and to use method of contraception, they would face opposition from their husbands at home because the husbands may need to have a child soon or he doesn't like to use condom during intercourse. Another group of women reported that they avoided using contraception because adding contraception to the ARV they were taking will hurt their health because of the high number of medications.

A nurse working in the ART clinic reported:

“Regarding utilization of contraception, mothers have the knowledge because we had thought them and most of them who wanted to use contraception used it. Opposite to this, what we found out as a problem was on the side of their husbands. Couple counseling on family planning is very rare except among those who communicate with each other. After women decided to take the contraception, they couldn't take it because their husbands wouldn't agree at home later: hence, many of these women end up in unwanted pregnancy.”

Nurse, 28 years old, working in the ART clinic

When a woman asked about utilization of contraception responded:

“At the moment I didn't use any method of contraception. Previously I was using pill but I stopped taking the pill because my weight had reduced and my CD4 didn't show any increment. I stopped taking the pills because I felt that I was under medication burden which attributed to my weight loss.”

30 years old married and a mother of three children

Despite fearing risk of HIV infection to their children, women with discordant partners decide to stop using contraception and get pregnant to satisfy their partner's desire for children and to alleviate stigma from the side of their relatives, because they don't disclose their HIV status.

“My partner is HIV negative, but neither I nor my partner has got any children before. I don't like to have risk of HIV infection to my child. On the other hand, my husband wants to have children very much and our relatives also pressured us to have children soon, but nobody knows my being HIV positive. It is because of these two reasons that I decided to have this pregnancy now.”

24 years old women with no children

Some of the respondents who experienced condom failure previously practice using combined methods of contraception currently. Avoiding exchange of different viral strains was the reason for condom use and another method to prevent unintended pregnancy.

“I am now using condom with injections. I use condom to prevent reinfection with another viral strain and injections to prevent pregnancy. Previously, I had been using condom alone but it failed and I ended up with pregnancy. Since then, I have changed my mind and started using combined method of condom and injections.”

Married, 28 years old and with 2 children

Health professionals who have participated in the study reported the negligence of counseling on permanent methods among family planning providers.

“For example there was one woman aged 36 years, pregnant for the sixth time and has five live children. She said that her recent pregnancy was not intentional rather it was because she missed a dose injection of depo and she came here seeking PMTCT service. Here I felt that the family planning provider who contacted her before should have raised the issue and counseled this woman about permanent method of contraception. It is surprising for me to be grand multipara (>5children) at the age of 36 even in Addis Ababa’.”

27 Years old nurse working in the PMTCT unite

5.2.3 Pregnancy and CD4

Health professionals consider CD4 count of women and consider switching of some of the ARV medications in case they want to get pregnant.

“My husband and I want to have a child soon, but when I disclosed my intension for my ART provider about this, she said that: “your CD4 should increase somehow and wait until it reaches at least 500 cells/m3. Then I will change one of your medications because it will not be taken during pregnancy and you can then be pregnant but I wouldn’t advise you to get pregnant with this CD4.”

A 34 years old cohabiting women

There is increased demand for reproductive health care services among HIV positive individuals. Following the improvement of their health status and relatively long life, HIV positive individuals are assuming different long term reproductive plans like desiring to have a child, treatment of infertility and the need of family planning. Reproductive health care needs are given in different clinics like the PMTCT, family planning and so on for HIV positive women. There is a need of integrating reproductive health care services with the general ART services as this is advantageous for the quality as well as comfort and accessibility of these services for the clients.

This situation is described by a doctor as:

“These days rate of pregnancy among HIV positive women is getting very high. There are many women who planned to have children and who had children after they start attending ART care. Like anybody, there are many HIV positive women who are endowed with hope and good aspiration towards future. They plan about the future like anyone does. To fulfill the reproductive health care need of these women we will provide the appropriate services including counseling. Besides, we will send them to various RH clinics like the PMTCT,

family planning, safe abortion and the like but we don't know what happened there. As to some of the complaints and the challenges patients did face, we also forwarded our own suggestions to the concerned bodies the right time saying if this was like this and soon. Hence, as to me, it would have been better for the clients as well as the quality of the service if RH services were linked to the general ART service."

Male doctor 35 years old working in the general ART

6 DISCUSSION

This study assessed unmet reproductive health care needs and occurrence of unintended pregnancy among HIV positive women receiving ART in Addis Ababa. It is recognized that family planning has a crucial role to play in HIV prevention programs. In the present study unmet need for contraception was 31.1%; 24.9% unmet need for spacing and the unmet need for limiting was 6.2%. The contraceptive prevalence rate was 29.4% and total demand for contraception of 60.5%. Demand satisfied for contraception was 48.6%.

Unintended pregnancies occurred among total pregnancies after being HIV positive were 46%: of these unintended pregnancies 38% were mistimed and 8% were unwanted.

Our finding of unmet need for contraception (31.1%) is comparable with the finding of unmet need for contraception among HIV positive women in Lesotho (33%) (20). Also this finding draws parallel with what has been find out in Kenya among HIV positive women in comprehensive care units (30%) (21). This could be attributed to the similar health status and treatment conditions under which both populations go through.

According to the Ethiopian Demographic and Health survey 2005, unmet contraceptive need in Addis Ababa was 10 % which shows major difference with what has been found out in the present study. However, it is possible to suggest that the difference between the finding of this research (31%) and the national average (34%) of unmet contraceptive need in the EDHS 2005 is almost insignificant (37). The major difference between our finding and the Addis Ababa's may be due to the difference in health conditions between the specific study population and the general population taken from Addis Ababa. Due to their health and treatment conditions some HIV positive women stop taking contraception while others use traditional methods for the reason that the latter consider the high burden of medications affecting their health. The same issue was elaborated in the qualitative result; this situation may attribute to the higher unmet contraceptive need in case of HIV positive woman.

Unmet need for spacing is higher than unmet need for limiting. This share of the components of unmet contraceptive need was also seen in the national and across many nations, regions, of the country in the EDHS 2005: that there were many limiters than spacers. 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 (60.5%) and higher satisfied demand (49%) for contraception than women in the general population of the EDHS 2005 (49%, 31%), respectively. This clearly indicates how significant the service of contraception is for HIV positive women.

Fear of MTCT risk, fear of leaving orphans in case they die and the unique risk of unintended pregnancy on their health and risk of vertical HIV transmission are the rationales that make HIV positive women demand for contraception more than women in the general population.

An important factor associated with unmet reproductive health care needs in this study was recent CD4 count. Women with recent CD4 count > 200 cells/m³ were less likely to have unmet need for family planning than women with $CD4 \leq 200$. According to the WHO AIDS staging, CD4 count is one of the measures the health status for HIV positive women. Women with CD4 count of > 200 were relatively in a good health condition than women with CD4 count of ≤ 200 . Many HIV positive women come to the ART follow up when especially their CD4 is below or equal to 200 to begin HAART or to seek care; this is the occasion which makes these women to access and use reproductive health care and services more in these facilities and could met their contraception demand.

Other significantly associated factor with unmet need for contraception was HIV status of partners. Those women who had discordant partners were more likely to have unmet need for contraception. Possible explanation for this finding is that women may stop using contraception because their partners want more children. As seen in a cross sectional study done in Uganda among sero discordant couples, partner's desire for children was

among major determinant reasons among couples to desire to have children (38). Another possible explanation of the finding is the expected norms of the Ethiopian society that relatives are often eager to see new couples having children. Thus, perceived or experience of stigma makes HIV positive women not to use contraception and may decide to get pregnant. The same view was also reflected in the qualitative result in that though these women fear the risk of HIV infection to their children, women with discordant partners decide to stop using contraception and get pregnant to satisfy their partner's desire for children and to alleviate the risk of stigma from the side of their relatives, by those who did not disclose their discordant result.

Previous experience of unintended pregnancy after being HIV positive was associated with unmet need of contraception currently. Those who experienced unintended pregnancy previously were more likely to have unmet need for contraception which indicates that certain groups of women usually go in the unmet need phase in different times due to different reasons.

Only 22% of the women in the recent study get family planning service from the ART unit, though at least 76% of them should have received this service from the unit. This shows the need to integrate family planning and other reproductive health services with the general ART service and may be one of the problems to meet reproductive health care needs of these women. The need for integrating reproductive health and general HIV services was also demonstrated in the qualitative method as seen from the side of the quality as well as comfort and accessibility of reproductive health care services for the clients.

More than 75% of women have discussed the use of condoms and other forms of contraception with health care providers since their HIV diagnosis, but only 11% of the women have ever discussed EC. Discussion of safe TOP was even less (8%) among women who need to have this discussion. This finding is comparable with the finding of a study done among HIV positive women in ART programmes in South Africa (16). The result of the qualitative study also elaborates on these issues, as on the side of counselors

family planning and condom utilization counseling was provided for those who need to use a method of contraception; however, emergency contraception and use of safe abortion services were not raised for the reason that some counselors believe that giving counseling on those issues is encouraging them to have unprotected sex and unplanned births.

In the present study occurrence of unintended pregnancy was assessed together with unmet reproductive health care needs. Unintended pregnancy is the direct consequence of unmet need for contraception. Avoiding unintended pregnancy is one way of vertical transmission reduction. Thus preventing unintended pregnancy with a better access to contraceptives can reduce the burden of HIV in obstetric and pediatric areas. A relatively high proportion of women in our study had faced unintended pregnancy since their HIV diagnosis, 147 (46%) and this finding is in line with a 2 year follow up study done in Rwanda; which reported the 2-year incidence of pregnancy among HIV positive women was 43% (39). In the same way the findings of our study is also comparable with the national average as 42% of pregnancies were unintended in the study done in 2008 in Ethiopia (40). On the other hand among pregnancies occurred during the post HIV diagnosis period in South Africa, 30% were unintentional (30); which is lower than the finding in our study and could be attributed to the difference in socioeconomic characteristics between the two populations.

As to the reasons mentioned for failure to avoid unintended pregnancy, method failure, husband/partner disapproval, and lack of awareness were frequently reported. The most common preferred method of contraception among the participants of the study was condom 112 (60%), however, more than 38% of women who had none regular partner used condom irregularly; besides, around 26% of sexually active women used condom alone. This improper use of condom was the reason for condom failure among the respondents. In the present study, failure of condom attributes for 12% of the reasons for the occurrence of unintended pregnancy. Hence, in addition to unintended pregnancy and risk of vertical transmission, this inappropriate use of condom has furthermore implications for heterosexual transmission of HIV. Failure of Injectables and traditional

methods were also reported as reasons, next to condom, for the occurrence of unintended pregnancy. Thus indicating that, method failure is a serious problem with great implications both for the individual as well as the system providing family planning services. The result of the qualitative study also elaborates on these issues that even though wives agree to take contraception or agreed to use dual method when given counseling, most of the times their husbands do not want to use condom or there is a disparity over the idea of fertility intention when husbands do not allow their wives to use contraception. The result of the qualitative study has also shown that some of the women themselves need to use traditional methods like rhythm than other permanent or semi permanent methods because they do not want to add another medication besides to their ARV, disliking the burden of many medications.

An important factor significantly associated with occurrence of unintended pregnancy was unmet contraceptive need. Occurrence of unintended pregnancy was high among women with unmet contraceptive need, the same finding was shown in a study done in Egypt (41). Hence, indicating that unmet need for contraception is a useful tool for identifying women at high risk of unintended pregnancy.

Ever use of emergency contraception was another factor significantly associated with occurrence of unintended pregnancy. Those who had ever used emergency contraception have more likely to experience unintended pregnancy. Possible explanation for this may be the majority of those women who had faced unintended pregnancy have used emergency contraceptive methods.

STRENGTH AND LIMITATION OF THE STUDY

Strength

The study used qualitative method to triangulate and interpret the findings of the quantitative results and as well elaborates issues not evidently explained in the quantitative data.

It is one of the studies exploring unmet needs of reproductive health care and occurrence of unintended pregnancy under ART treatment. Thus, it gives insight on where to focus on meeting the reproductive health care needs of HIV positive women and preventing unintended pregnancy among HIV positive women. Hence, filling the gap in wide ranging HIV prevention and care programmes.

Limitations

Sampling bias- the study did not sample all HIV positive women; it only includes study subjects in the ART care units. Hence, HIV positive woman in the health care system may differ from samples of women outside of the health care system. Thus, the study result may not be generalized to all HIV positive women in Addis Ababa.

Selection bias-even if systematic random sampling was used to select participant women for the study, data collectors may recruit women consecutively when they came in the ART treatment units.

Social desirability bias- counselors in the respective ARV treatment units were trained and recruited as data collectors to ensure confidentiality of the study subjects. Councilors were also trained on confidentiality and respecting respondents' right on participation or not. Counselors explained well to the respondents that the study has no link with the service provided, despite this, respondents may still provide desired answers by their counselors.

Women may report a birth or current pregnancy as wanted once the child is born, and this reason of a current birth or pregnancy as wanted may in fact result in an under estimate the true extent of unwanted births.

Crosectional nature of the study: it couldn't tell temporal relation between exposure and outcome

8 CONCLUSION

The present study has shown that unmet need for family planning and other reproductive health care services were relatively high which exhibits broader demand for these services and the need for new strategies to address the contraceptive needs among HIV-positive clients.

HIV status of partners, recent CD4 cell count, and experience of unintended pregnancy were found to be related with having unmet need for contraception among the study population.

Unintended pregnancy was observed to be one of the major reproductive health problems which occurred in a large majority of HIV positive women after they know their status.

Unmet need for contraception and ever utilization of emergency contraception were significantly related with occurrence of unintended pregnancy

Reproductive health care counseling in the ART units lacks completeness in that it only focuses on HIV positive women who were married or in relationship and was mostly given at the beginning when patients were screened for ART eligibility.

Although many women in this study were counseled about contraception or condom use, counseling of emergency contraception and termination of pregnancy were very low.

Method failure was seen as a serious problem among the study participants who had experienced unintended pregnancy. Condom failure was the major among the failed methods.

Utilization permanent method/sterilization was almost none existent.

9 RECOMMENDATIONS

9.1 Government and stake holders in the study area

Policy-makers and donors should embrace family planning as a core technical component of the preventing mother-to-child transmission (PMTCT) and design new strategies to deliver family planning methods in the ART units.

Integrating reproductive health care and HIV care and treatment services is basic and necessary to avoid unintended pregnancy and all its catastrophic consequences especially for HIV positive women as it improves access and uptake of both reproductive health and HIV and reduces stigma.

9.2 Health care providers in the research setting

Comprehensive and quality reproductive counseling and quality of care should be implemented for all women in the ART units despite the marital status and other condition of women as every woman in the reproductive age group are potentially exposed to unintended pregnancy.

Pro-active family planning counseling should be provided not only at the time of screening patients for ART eligibility but also and more importantly, on a regular basis there after once a woman enrolled in the ART units.

The counseling service on reproductive health issues should also give emphasis on family planning utilization of permanent methods.

Women using condoms alone for contraception should specially be advised on emergency contraception utilization in the ART units.

9.3 Researchers

Researchers are advised to conduct further studies on same issue outside of the health care system and in different parts of the country to come up with more representative results. Moreover, occurrence of unintended pregnancy among HIV positive women can be better studied with a different study design (possibly with a follow up cohort design) as information on occurrence of unintended pregnancy at a time is liable to recall bias and mis report.

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11 ANNEXES

ANNEX 1: Informed-Consent form

Addis Ababa University

School of public health

Study on “Assessment of unmet reproductive health care and occurrence of unintended pregnancy among HIV positive women of reproductive age groups in governmental hospitals of Addis Ababa”

Information sheet:

Greeting

My name is -----

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

I am working in the research team, which is conducted by Addis Ababa University in collaboration with the ministry of health in hospitals on HIV positive women who are on ART. The main purpose of the study is to assess how big the problem of unintended pregnancy is on HIV infected women who are on ART, to discover unmet reproductive health care needs and the occurrence of unintended pregnancy and also assessing utilization of contraception among women on ART follow up care. We are inviting HIV positive women on ART between the ages of 15 and 49 years to contribute for the study. The study will not cause any harm to you except giving the information.

So I would like to ask you some questions related to the subject. Your responses will help Through policy formulation and program implementation to improve your reproductive and family planning service needs and access.

Your name will not be recorded and all the information you give 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 voluntary. Are you willing to participate?

€Yes

€No

If they say yes and are willing to participate in the study, say thanks and proceed to the consent form. If they say no, say thanks. Do not force or reinforce people to participate in the study.

Consent form

I have read or have been read the information or there is a witness when the information is read (for those who cannot read or write). I understand the information given fully.

So I am willing to participate in the study.

Date of the interview-----

Name of the hospital-----

Data collector/a person who took the consent name----- signature-----

Check on date-----

In case you need to contact:

Contact address of the investigator-----Name: Girum Zewdu

Tel. 0911742435

Po.box. 46189

Email.girumey@gmail.com

ANNEX 2: Questionnaire

QUISTNER FOR “unmet reproductive health care needs and occurrence of unintended pregnancy among HIV positive women of reproductive age group (15-49) governmental hospitals of Addis Ababa”, 2010

PART 1 SOCIO DEMOGRAPHIC CHARACTERISTICS

Ser. No	questions	Responses	Skip
101	How old are you?	-----years(age in complete years)	
102	Religion	1.Orthodox 2. Muslim 3. Catholic 4. Protestant 5.Other specify-----88	
103	Ethnicity	1. Amhara 2. Oromo 3. Gurage 4. Tigray 5. Other specify----88	
104	Educational level	1.illitrate(can't read and write) 2. Able to read and write (no grade) 3. Primary education 4.Secondary education 5. Attended higher education	
105	Marital status	1.Married 2.Single 3.Widowed 4.Divorced 5.Separated 6.Cohabiting partner	
106	Main occupation	1.Unemployed 2.Goverment employ 3.Private organization employ	

		4.House wife 5.Daily laborer 6.Merchant 7.Comercial sex worker 8.Student 9.Other specify-----88	
107A	Do you have an income?	1.Yes 2.No	Skip toQ108
107B	What is your total monthly income?	1.-----Eth.Birr	

PART2 INFORMATION ON PREGNANCY AND CHILD BIRTH

108	Have you ever been pregnant?	1.yes 2.no	
109	Have you ever been pregnant after you learn your HIV status?	1.yes if yes proceed to Q110 2.No →	Skip to Q112
110	If yes to Q 109, Thinking back to just before you got pregnant, how did you feel about the situation of your pregnancy?	1.I wanted to be pregnant sooner 2.I wanted to be pregnant later 3.I intend to be pregnant by then 4.I didn't want to be pregnant then or at any time in the future	
111	If the answer to Q110 is 1or 2or3, how many pregnancies were mistimed or unwanted?	Enter the number-----	
112	Are you currently pregnant?	1.yes 2.no 3.I don't know---88	
113	If the answer to Q112 is yes, how do you	1.I wanted to be pregnant sooner	

	feel about the timing of the current pregnancy's occurrence?	2.I wanted to be pregnant later 3.I wanted to be pregnant by then 4.I didn't want to be pregnant then or at any time in the future	
114	If you had been pregnant when you did not want to, what was the reason you could not avoid becoming pregnant?	1.luck awareness of contraception method 2.poor access to contraception 3.contraceptive failures 4.husband or partner disapproval on contraceptive use 5.fear of method related side effects 6. fear of ARV interaction with the contraceptive method 7.others specify----88	
115	What did (will) you do for the mistimed or unwanted pregnancy or pregnancies that you had or have after you learn your HIV status?	1.pregnancy continues and I gave birth by consulting health providers 2.simply I give birth 3.abort 4.attampted to stop the pregnancy but failed 5.others specify---88	
116A	Have you ever induced abortion after being HIV positive?	1.Yes 2.No	
116B	How many induced abortions do you have after knowing your HIV status?	Enter the number-----	
117	Do you know the availability of safe abortion services?	1.yes I know 2.I don't know----88	
118	If yes to Q 117 is yes, Have you ever accessed safe abortion services for the induced abortions you had?	1.yes 2.no 3.I don't want to use them	

		4.I never had induced abortion 4.other specify----88	
119	If the answer to Q117 is no or I don't want to use, them what is the reason behind?	1.I don't have the knowledge of safe abortion 2.I don't know where to access 3.I don't know the benefit of safe abortion services 4.fear of stigma and discrimination 5.other specify----88	
120A	Do you have live child/rn	1.Yes 2.No	
120B	How many live children do you have now?	1.Enter the number-----	
121A	Do you have a desire to have children in the future?	1.yes 2.no→ 3.do not know---88	Skip to 131
121B	If yes to Q121, when do you want to have a child?	1.Soon 2.atleast after 2 years 3.Idon't know	

PART3 INFORMATION ON FAMILY PLANNING UTILIZATION

122	Have you ever used any family planning method?	1.yes 2.No 3.I don't remember	
-----	--	-------------------------------------	--

123	If yes to Q122, what was the method?(more than one Answer is possible)	1.pill 2.injectables 3.IUD 4.condom 5.rythm method 6. tubal legation 7.other----88	
124	Have you ever used any method of contraception after you learn your HIV status?	1.yes 2.No	skip to Q 129
125A	Do you need to use method of contraception now?	1.Yes 2.No	
125B	Do you use any method of contraception currently (during the study period)?	1.yes 2. No	skip to 129
126	If the answer to Q125B is yes, what Is the type of method you are using currently?	1.condom 2.pill 3.injectables 4.rythm 5.IUD 6.quitus interrupts 7.tubal legation 8.other specify---88	
127	Have you ever received counseling on unintended pregnancy from your counselor?	1.yes 2.no 3.I don't remember	

128	If yes to Q127 is yes, how often?	<ul style="list-style-type: none"> 1. At the time of screening for ART eligibility 2. on regular bases 3. Very rarely 	
129	From where do you get the family planning method?	<ul style="list-style-type: none"> 1. At the ART treatment unit 2. from the family planning unit after being referred 3. from another governmental 4. Private facility? 5. FGA or other NGO clinic 6. pharmacy 7. shop 8. other specify---88 	dc
130	If your answer to Q125 is no, Why don't you use any method of family planning currently?	<ul style="list-style-type: none"> 1. I am not married or in a relationship 2. I am infertile 3. I want to give birth 4. my partner doesn't agree 5. fear of stigma and discrimination 6. I am amniotic 	
130	If yes to Q129, Why do you want to use family planning method?	<ul style="list-style-type: none"> 1• economic status for raring 2• desired family size 3• Ideal spacing 4• Concerns about health and quality of life 5• Fear of transmitting HIV 6• Anxiety about leaving orphans 7• Concerns about limited access to care for family due to stigma and discrimination 8. other specify-----88 	

131	Do you know about emergency contraception?	1.yes 2.I don't know---88	skip to Q132
132	If the answer to Q131 is yes, have you ever used emergency contraceptive?	1.yes 2.no	

PART4 INFORMATION ON HIV TESTING AND COUNSELING

134	How long since you did with your HIV diagnosis?	1.write the time----- 2.do not remember	
135	How long has it been since you start your ART treatment?	1.enter the time-----	
136	How much is your recent CD ₄ count?	1.enter the number-----	
137	have you disclosed your HIV status to your husband, partner or family	husband/partner family 1.yes 1.yes 2.no 2.no	
138	Did your husband/ partner get tested?	1.yes 2. No→ 3.I don't know ---88	skip to 139
139	If yes to Q138, what is the HIV status of your partner?	1 Positive 2. Negative	

140	If your partner is positive, is he on ART?	1.yes 2.no 3.I don't know---88	
141	If the answer to Q136 is no, then what is the reason behind?	1.because I tested 2.Idon't disclose 3.he doesn't want to 3.other, specify---88	

PART5 INFORMATION ON PMTCT

142	Can HIV be transmitted from mother to child?	1.yes 2.no→ 3. I don't know---88	
143	If the answer to Q158 is yes, when will the tranmission occur? (you can give more than one answer)	1.during pregnancy 2.during delivery 3.during breast feeding 4.I don't know---88	
144	Do you know any method that decreases the risk of MTCT?	1.yes 2.No	
145	If yes, what do you think is it? (they can give more than one response)	1.prevating unintended pregnancy 2.using ARVs 3.c s delivery 4.exclusive breast feeding up to six months after delivery 5.by not breast feeding 6.other specify----88	

**PART6 INFORMATION ON SEXUALITY AND REPRODUCTIVE HEALTH
CARE NEEDS**

146	Do you have the need to discuss any RH issue (s) with your ART provider?	1. Yes 2.No	
147	Have you ever discussed any RH topic (topics) with your ART provider?	1.yes 2.No→	skip to Q 150
148	If the answer to Q 147 is yes, What RH topics you have ever discussed with your provider? (they can give more than one answer)	1.Family planning and contraception 2.Sexuality 3.Pregnancy and (or) child bearing and HIV 4.PMTCT 5. safe abortion services 6.Condom 7.Emergency contraception 8.Unwanted pregnancy	
149	Do you think that your HIV provider has adequately covered the RH topic (s)?	1.yes 2.I don't think 3.I don't know---88	
150	Have you had sexual inter course in the past twelve months?	1.yes 2.no→ 3.I don't remember 4.no response	Skip to 171
151	If the answer to Q150 is yes, with whom did you have sexual inter	1.regular partner(husband or friend)	

	course?	2.nonregular partner(causal) 3.other (specify)---88 4.noresponse	
152	If your answer to Q 151 is with non regular partner (2), did you use condom the time you had sex with non regular partner?	1.yes 2.no→ 3.Idon't remember	Skip to Q153
153	If yes to Q150, how often did you use condom?	1.All the time I had sex 2.Some times I had sex 3.Other specify---88	
154	If your answer to Q 150 is yes why do you use condom? Because	1.To prevent pregnancy 2.My partner is HIV negative 3.Advice by the health care provider 4.Fear of re infection with new strainF5.fear of other STIs 6.Oher (specify)---88	
155	If you didn't use condom, what was your reason for not using?	1.My partner's status is positive 2.My partner does not like it 3.I don't like it 4.I want to have children 5.I don't know where to get it	

156	In total, with how many different people have you had sexual intercourse after you learn your HIV status?	1.Enter the number ----- 2.I don't remember 3.None	
157	If yes to Q 152, how often did you use condom with all your partners?	1.Always 2.Sometime 3.I don't know---88	
158	Do you or your partner have any symptom of STI in the past nine months such as genital ulcer, abnormal genital discharge, and /or pain during micturation?	1.Yes 2. No 3. I don't know	
159	If your answer to Q158 is yes, from where do you get the treatment?	1.The ART unit 2.Public health institution 3.Private institution 4.Traditional healer 5.pharmacy 6.Other specify---88	

Annex 3: የግንዛቤ እና ፈቃደኝነት መጠየቂያ ቅጽ

በአዲስ አበባ ዩኒቨርሲቲ ህክምና ፋኩልቲ የህብረተሰብ ጤና ሳይንስ ትምህርት ቤት የጥናቱ ተሳታፊዎች በግንዛቤ ላይ የተመሰረተ ፈቃደኝነት መጠየቂያ ቅጽ።

ስለ ስነ-ተዋልዶ ጤና ክብካቤ ፍላጎት አለመሙዋላት እና ያልተፈለገ እርግዝና ክስተት፤ የፀረ HIV መድኃኒት ክትትል በማድረግ ላይ ባሉ እና በወሊድ የእድሜ ክልል ውስጥ በሚገኙ ሴቶች ላይ የሚደረገውን ጥናት ለማካሄድ የተዘጋጀ የግለሰቦች ፈቃደኝነት መጠየቂያ ቅፅ።

እንደምን አደሩ /ዋሉ? እንደምን ነዎት? እኔ ስሜ -----ይባላል። በአዲስ አበባ ዩኒቨርሲቲ የህብረተሰብ ጤና ሳይንስ ትምህርት ቤት የጥናት ቡድን አባል ነኝ። በመጀመሪያ ስለሰጡኝ ጊዜ በጣም አመሰግናለሁ።

የዚህ ጥናት ዋና አላማ HIV በደማቸው ውስጥ ያለባቸውንና የፀረ-HIV መድኃኒት ክትትል በማድረግ ላይ ላሉ ሴቶች ስለ ስነ-ተዋልዶ ጤና ክብካቤ አቅርቦትና አጠቃቀም እንዲሁም ግልጋሎት እና ያልተፈለገ እርግዝናን ክስተት ለመዳሰስ ነው። ጥናቱ ተሳታፊ የሚያደርገው ፀረ HIV መድኃኒት በመውሰድ ላይ ያሉና በወሊድ የእድሜ ክልል ውስጥ የሚገኙ ሴቶችን ነው። የተወሰነ ሰዓት ለመጠይቁ ከመውሰድ ውጭ ጥናቱ በተሳታፊዎች ላይ የሚያደርሰው ምንም አይነት ጉዳት የለም።

እርስዎ የሚሰጡት ሃሳብ የጥናቱን አላማ ለማሳካት እና በስነ-ተዋልዶ ጤና ክብካቤ አገልግሎትና አሰጣጥ ላይ ለፖሊሲ ቀረፃና ፕሮግራም አፈፃፀም ማሻሻያ በማድረግ ከሻይረሱ ጋር የሚኖሩ ሴቶችን ተጠቃሚ ለማድረግ በጣም ጠቃሚ ነው።

ከዚህም ሌላ ላረጋግጥሎት የምፈልገው እርስዎ የሚሰጡት ማንኛውም መረጃ ሚስጥራዊነቱ የተጠበቀና ለዚህ ጥናት አላማ ብቻ የሚውል መሆኑን ነው። ስምዎም አይፃፍም። በጥናቱ የመሳተፍና ያለመሳተፍ ወይም የማይፈልጉትን ጥያቄ ያለመመለስ መብትዎ የተጠበቀ ነው።

አሁን በጥናቱ ላይ ለመሳተፍ በቅድሚያ ፈቃደኝነትዎን ይግለጹልኝ።

ፈቃደኛ ነኝ

ፈቃደኛ አይደለሁም

ፈቃደኛ ከሆኑ አመስግኖ በስምምነታቸው እንዲፈረሙ ማድረግ።

ፈቃደኛ ካልሆኑም ማመስገን

የስምምነት ማስፈረሚያ ቅፅ

ከላይ ያለው መረጃ ተነቦልኝ እና ተረድቼ በጥናቱ ላይ ለመሳተፍ ፈቃደኝነቴን በፊርማዬ አረጋግጣለሁ።

የጠያቂው ስም----- ፊርማ -----

መጠይቅ የተካሄደበት ቀን -----

የተቆጣጣሪው ስም -----ፊርማ -----

የተረጋገጠበት ቀን -----

የተመራማሪው አድራሻ----- ስም ግሩም ዘወዳ

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Annex 4: መጠይቅ በአማርኛ

የስነ-ተዋልዶ ጤና አገልግሎት ፍላጎት አለመሙላት እና ያልተፈለገ እርግዝና ክስተት HIV በደማቸው ውስጥ ባለ እና በፀረ HIV ህክምና መስጫ ጣቢያ ውስጥ በሚገኙ ሴቶቹ ላይ ለመዳሰስ የተዘጋጀ መጠይቅ።

ክፍል 1. የማህበራዊና ኢኮኖሚያዊ ሁኔታን የሚዳስሱ መጠይቆች

ተ.ቁ	ጥያቄ	መልስ ኮዶች	ይለፉ
101	ዕድሜዎት ስንት ነው?	_____ አመት	
102	ሐይማኖትዎ ምንድን ነው?	<ol style="list-style-type: none"> 1. ኦርቶዶክስ 2. ሙስሊም 3. ካቶሊክ 4. ፕሮቴስታንት 5. ሌላ ካለ ይጠቀስ-----88 	
103	ብሔርዎት	<ol style="list-style-type: none"> 1. አማራ 2. ኦሮሞ 3. ጉራሄ 4. ትግሬ 5. ሌላ ካለ ይጠቀስ -----88 	
104	የትምህርት ደረጃዎ?	<ol style="list-style-type: none"> 1. ማንበብ ና መጻፍ የማይችል 2. ማንበብና መጻፍ የሚችል (ክፍል የሌለው) 3. የመጀመሪያ ደረጃ ት/ት ያጠናቀቀ 4. ሁለተኛ ደረጃ ት/ት ያጠናቀቀ 5. ከፍተኛ ትምህርት ያጠናቀቀ 	
105	የጋብቻ ሁኔታዎ ምን ይመስላል?	<ol style="list-style-type: none"> 1. ያገባች 2. ያላገባች 3. ባል የሞተባት 4. የፈታች 5. አብረው የሚኖሩ 	

106	በአሁኑ ጊዜ የሚተዳደሩበት የሥራ ዓይነት	<ol style="list-style-type: none"> 1. የመንግስት ሰራተኛ 2. የግል ስራ ተቀጣሪ 3. የቤት እመቤት 4. የቀን ሰራተኛ 5. ኤተኛ አዳሪ 6. ተማሪ 7. ሌላ ካለ ይጠቀስ -----88 	
107A	የወር ገቢ አለውት?	<ol style="list-style-type: none"> 1.አወ 2.የለኝም 	
107B	ጠቅላላ የወር ገቢዎ ምን ያህል ነው?	<ol style="list-style-type: none"> 1. -----ያኢት.ብር 3. አላወቅም-----88 	

ክፍል2. እርግዝናን እና መወለድን የተመለከቱ መጠይቆች

108	በሂደትዎ እርግዝና አጋጥሞዎት ያወቃል?	<ol style="list-style-type: none"> 1. አዎ 2. የለም 	
109	HIV በደም ውስጥ መኖሩን ካወቁ በኋላስ እርግዝና አጋጥሞዎት ያወቃል?	<ol style="list-style-type: none"> 1.አዎ 2.የለም አላወቅም 	
110	ለ109 መልስዎ አዎን ከሆነ ከማርገዝ በፊት ያለውን ሁኔታ ሲያስቡ ስለ እርግዝናዎ ክስተት ምን ይሰማዎታል?	<ol style="list-style-type: none"> 1. ፈልጎ ነበር ያረገዝኩት 2. ማርገዝ የምፈልገው እርግዝናዬ ከተከሰተበት ጊዜ በፊት ነበር 3. ማርገዝ የምፈልገው ቆይቼ ነበር 4. በዛን ጊዜም ይሁን ወደፊት ባለው በማንኛውም ጊዜ ማርገዝ አልፈልግም ነበር 	
111	ሳይፈልጉ ወይም ባልፈለጉት		

	ጊዜ ምን ያህል እርግዝና ወች አጋጥሞ ይታያል?	ቁጥሩን ይጻፉ-----	
112	በአሁኑ ሰዓት ነፍሰ ጡር ነዎት?	1. አዎን 2. አይደለሁም 3. አላውቅም -----88	
113	ለ112 መልስዎ አዎን ከሆነ ስለ አሁኑ የእርግዝና ክስተትና ምን ይሰማዎታል?	1. ያረገዝኩት ፈልጌ ነው 2. ማርገዝ የምፈልገው ከአሁን በፊት ነበር 3. ማርገዝ የምፈልገው አሁን ሳይሆን ቆይቼ ነበር 4. አሁንም ይሁን ወደፊት ባለው በማንኛውም ጊዜ ማርገዝ አልፈልግም ነበር	
114	ሳይፈልጉት ወይም ባልፈለጉት ጊዜ የተፈጠረውን እርግዝና እንዳይፈጠር ለማድረግ ያልቻሉበት ምክናያት ምንድን ነበር?	1. ስለወሊድ መቆጣጠሪያ አጠቃቀም እውቀት ስላልነበረኝ ነው 2. የወሊድ መቆጣጠሪያ ለማግኘት ባለመቻሌ ነበር 3. የተጠቀምኩት የወሊድ መቆጣጠሪያ አገልግሎቱን ባለመስጠቱ ነበር 4. ባለቤቴ ወይም ጓደኛዬ የወሊድ መቆጣጠሪያ እንድወስድ ስላልተስማማ ነበር 5. የወሊድ መከላከያውን የጎንዮሽ ጉዳት-በመፍራት 6. ከፀረ HIV መድኃኒት ጋር ያለውን ግንኙነት በመፍራት 7. ሌላ ክለ ይጠቀስ-----88	
115	ሳይፈልግ ወይም ባልፈለጉት ጊዜ ለተፈጠረው እርግዝና ምን አደረጉ?	1. የጤና ባለሙያዎችን በማማከር እርግዝናዬን ቀጥሎ ወለድኩ 2. እርግዝናዬን ቀጥሎ ወለድኩኝ 3. አስወረድኩት 4. ለማስወረድ ሙከራ አድርጌ ሳይሳካልኝ ቀረ 5. ሌላ ካለ ይገለፅ -----88	

116A	ወርጃ/የጽንሰማክቅረጥ አድርገውያውቃሉ?	1.አወ 2.የለም	
116B	ምን ያህል ወርጃ (የፅንሰ ማቋረጥ) አድርገዋል?	1.ካለ ቁጥሩ ይጻፍ ----- 2.አስወርጂ አላውቅም→	ወደ 119 ይለፉ
117	ለፅንሰ ማቋረጥ ጤንነቱ የተጠበቀ የፅንሰ ማቋረጥ አገልግሎትን ተጠቅመዋል?	1.አዎን 2.አልተጠቀምኩም 3.ጤናማ የሆነ የፅንሰ ማቋረጥን መጠቀም አልፈልግም 4.ፅንሰማቋረጥ አጋጥሞኝ አያውቅም	
118	ለ117 መልስዎ አልተጠቀምኩም ወይም መጠቀም አልፈልግም ከሆነ ምክንያትዎ በምንድን ነው?	1. ስለጤናማ የፅንሰ ማቋረጥ ስለማላውቅ 2. ጤናማ የሆነ የፅንሰ ማቋረጥ የት ማግኘት እንደምችል ስለማላውቅ ነው 3. ጤናማ የሆነ የፅንሰ ማቋረጥን ጥቅም ስለማላውቅ ነው 4. አድሎና መገለልን በመፍራት ነው 5. ሌላ ካለ ይገለፅ -----88	
119A	በሂወትልጅ አለውት?	1.አወ 2.የለም	
119B	እርስዎ አሁን በሒወት ስንት ልጆች አለዎት?	1. ቁጥሩ ይጠቀስ ----- 2. በሕይወት ምንም ልጅ የለኝም	
120A	ወደፊት ልጅ (ሌላ ልጅ) እንዲኖረዎት ይፈልጋሉ?	1. አዎን 2. አልፈልግም 3. አላውቅም -----88	
120B	ለ120 አዎ ከሆነ፣ መቸነው ልጅ ለመወለድ ያሰቡት?	1.አሁኑ 2.በ.ያንስ 2 አመት ቆይቶ 3.አላውቅም	

121	<p>ለ120 መልስዎ አዎን ከሆነ፣ ልጅ ለመውለድ የፈለጉት ለምንድን ነው? (ከአንድ በላይ መልስ መስጠት ይችላሉ)</p>	<ol style="list-style-type: none"> 1. በቤተሰብ ወይም በጓደኛ ጫና ምክንያት 2. ትልልቆቹ ልጆች ከሞቱ ለመተካት በማሰብ 3. ዘሬን ለመተካት 4. ባለቤቱ ስለሚፈልግ 5. አድሎና መገለል እንዳይደርስብኝ 6. እርግዝናውን ለመከላከል የእውቀትና የምርጫ ማጣት 7. ያልተፈለገ እርግዝናን ለማስወገድ 8. በ HIV መያዜን ሠው እንዳያወቅብኝ 9. ሌላ ካለ ይጠቀስ -----88 	
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ክፍል 3. የወሊድ መቆጣጠሪያ አጠቃቀምን የተመለከቱ መጠይቆች

ተቁ	ጥያቄዎች	የመልስ ኮዶች	ዝላይ
122	<p>የወሊድ መቆጣጠሪያ ተጠቅመው ያውቃሉ?</p>	<ol style="list-style-type: none"> 1. አውቃለሁ 2. አላውቅም 3. አላስታውስም 4. ሌላ ካለ ይጠቀስ-----88 	
123	<p>ለ122 መልስዎ አውቃለሁ ከሆነ የተጠቀሙት መቆጣጠሪያ ምን ነበር? (ከአንድ በላይ መልስ መስጠት ይችላሉ)</p>	<ol style="list-style-type: none"> 1. እንክብል (ፒልስ) 2. መርፌ 3. ሉፕ 4. ኮንደም 5. ቀን በመቁጠር 6. በክንድስር የሚቀበር 7. ሌላ ካለ ይጠቀስ -----88 	
124	<p>ኤች.አይ.ቪ ፖዘቲቭ መሆንዎ ካወቁ በኋላ የወሊድ መቆጣጠሪያ ተጠቅመው</p>	<ol style="list-style-type: none"> 1. አውቃለሁ 2. አላውቅም 3. ሌላ ካለ ይገለፁ-----88 	

	ያውቃለሁ?		
125	አሁን የወሊድ መቆጣጠሪያ እየተጠቀሙ ነው?	1. አዎን 2. የለም → 3. መልስ የለም	ወደ131 ዝለይ
126	ለ125 መልስዎ አዎን ከሆነ የሚጠቀሙት የወሊድ መቆጣጠሪያ ምን አይነት ነው?	1.እንክብል (ፒልስ) 2.መርፌ 3.ሉፕ 4.ኮንደም 5.ቀን በመቁጠር 6.በክንድስር የሚቀበር 7.ስፐርምን ከብልት ውጭ ማፍሰስ 8.ማንፀንን ማስቋጠር 9.ሌላ ካለ ይገለፅ-----88	
127	አሁን የሚጠቀሙበትን የወሊድ መቆጣጠሪያ ለምን መረጡት?	1. የጤና ባለሙያው ስለመረጠው 2. ኤች.አይ.ቪ ከእናት ወደ ልጅ እንዳይተላለፍ ለመከላከል 3. ሁለት ችግር (እርግዝና ኤች.አይ.ቪን) ስለሚከላከል 4. ለጤናዬ ስለተስማማኝ 5. የትዳር ጓደኛዬ ስለመረጠው 6. ሌላ ካለ ይገለፅ-----88	
128	እስከ አሁን ድረስ ሀኪመዎ ስለ እርግዝና መከላከያና ያልተፈለገ/ያልታሰበ እርግዝና ምክር ሰጥቶታል ያውቃለሁ?	1.አዎ 2.አያውቁም 3.አላስታውስም	
129	ለ128 መልስዎ አዎ ከሆነ፣ መቸ	1.የፀረ ኤች አይ ቪ መደሀኒት ለመውሰድ	

	ነበር ምክር የተሰጠዎት?	ምርመራ ባደረግኩ ጊዜ 2.በየጊዜው ሳይቁረጥ 3.አንዳንዴ ና አልፎ አልፎ 4.ሌላ ካለ ይገለጽ-----88	
130	የወሊድ መቆጣጠሪያ ከየት ነው የሚያገኙት?	1. ፀረ ኤች.አይ.ቪ መድኃኒት ከሚሰጥበት ቦታ 2. ከዚህ ሆስፒታል የቤተሠብ ምጣኔ አገልግሎት ክፍል 3. ከሌላ የመንግስት ጤና ተቋም 4. ከግል ጤና ተቋም 5. ከቤተሠብ መምሪያ 6. ከፋርማሲ 7. ሌላ ካለ ይገለጽ -----88	
131	ለ125 መልስዎ የለም ከሆነ አሁን የወሊድ መቆጣጠሪያ የማይጠቀሙት ለምንድን ነው?	1. ስላላገባሁ ወይም የፍቅር ጉደኛ ስለሌለኝ 2. መወለድ ስለምፈልግ 3. ስለማልወልድ ወይም መሆን ስለሆንኩኝ 4. ባሌ ወይም ጉደኛየ ስላልተስማማ 5. መገለል እና አድሎን በመፍራት 6. የወርአበባ ስለማላይ 7. ሌላ ካለ ይገለጽ-----88	
132	በአሁኑ ሰአት የወሊድ መቆጣጠሪ መጠቀም ይፈልጋሉ?	1. አዎ 2. አልፈልግም 3. መልስ የለም	
133	እርስዎ የወሊድ መቆጣጠሪያ ከየት ቢያገኙ ይመርጣሉ?	1. ፀረ.ኤች.አይ.ቪ.መደሃኒት ከምወስድበት ክፍል 2. ከቤተሠብ ምጣኔ አገልግሎት ክፍል 3. ከሌላ የመንግስት ጤና ድርጅት 4. ከፋርማሲ 5. ከሱቅ	

		6. ሌላ ካለ ይጠቀስ-----88	
134	ለመሆኑ የወሊድ መቆጣጠሪያ ለመጠቀም የፈለጉበት ምክንያት ምንድን ነው?	<ol style="list-style-type: none"> 1. ልጅ ወልዶ ለማሳደግ በቂ ገንዘብ ስለሌለኝ 2. በቂ የሆኑ ልጆች ስላሉኝ 3. አሁን ልጅ መውለድ ስለማልፈልግ 4. የራሴ ጤና እንዳይጎዳና የተሻለ ህይወት እንዲኖር. 5. የHIV ቫይረሱ ወደ ልጄ ይተላለፋል ብዬ ስለምሰጋ 6. እኔ ከሞትኩ ልጄ ያለአሳዳጊ ይቀረል ብዬ ስለምሰጋ 7. በአድሎና መገለልን ስወልድ በቂ የሆነ እንክብካቤ ስለማላገኝ 	
135	ስለድንገተኛ የወሊድ መቆጣጠሪያ ያውቃሉ?	<ol style="list-style-type: none"> 1. አውቃለሁ 2. አላውቅም 	
136	ለ135 መልስዎ አውቃለሁ ከሆነ፣ ድንገተኛ የወሊድ መቆጣጠሪያ ተጠቅመው ያውቃሉ?	<ol style="list-style-type: none"> 1. አዎን 2. አላውቅም 3. አላስታውስም 	
137	ለ136 መልስዎ አላውቅም ከሆነ፣ ደንገተኛ የእርግዝና መከላከያ ተጠቅመው የማያወቁት ለምንድን ነው?	<ol style="list-style-type: none"> 1. የግብረ ስጋ ግንኙነት ስለማላደርግ 1. መጠቀም ስላልፈለኩ 2. ከየት ማግኘት እንደምችል ስላላወቅኩ 3. መገለልን በመፍራት 4. ከፀረ ኤች አይ ቪ መድኃኒት ጋር ላይስማማ ይችላል ብዬ በማስብ 5. ሌላ ካለ ይጠቀስ-----88 	

ከፍል 4 በፈቃደኝነት ላይ የተመሠረተ የምክክር አገልግሎትና የደም ምርመራ እንዲሁም የፀረ ኤች.አይ.ቪ ህክምናን የተመለከቱ መጠይቆች

ተ.ቁ	ጥያቄዎች	የመልሶች ኮዶች	ይሰፉ
138	ኤች.አይ.ቪ. በደም መኖሩን ካወቁ ምን ያህል ጊዜ ይሆንዎታል?	1. ጊዜውን ይጻፉ -----	
139	የፀረ ኤች.አይ.ቪ. መድኃኒት መውሰድ ከጀመሩ ምን ያህል ጊዜ ሆኖዎታል?	1. ጊዜው ይጠቀስ ----- 2. መልስ የለም 3. አላስታውስም	
140	የቅርብ ጊዜ የCD ₄ ቁጥርዎ ስንት ደርሷል?	1. ቁጥሩን ይጻፉ ----- 2. አላስታውስም 3. አላውቅም-----88	
141	የኤች.አይ.ቪ. የደም ምርመራ ውጤትዎን ለባለቤት/ጓደኛዎ ወይም ቤተሠብዎ አሳውቀዋል?	ለባለቤት /ጓደኛ ለቤተሠብ 1. አዎን 1. አዎ 2. አላሳወቅኩም 2. አላሳወቅኩ 3. መልስ የለም 3. መልስ የለም	
142	ባለቤት/ጓደኛዎ የኤች አይ.ቪ. ምርመራ አድርገዋል?	1. አዎን 2. የለም→ 3. አላውቅም -----88 4. ጓደኛ/ባል የለኝም	ወደ 147 ይሰፉ
143	ለ142 መልስዎ አዎን ከሆነ የባለቤት/ጓደኛዎ የHIV ደም ምርመራ ውጤት ምን ነበር?	1. ፖዘቲቭ 2. ኔጌቲቭ	
144	ለ143 መልስዎ ፖዘቲቭ ከሆነ ፀረ ኤች አይ ቪ. መድኃኒቱን ጀምረዋል?	1. አዎን 2. የለም 3. አላውቅም-----88	
145	ለ142 መልስዎ የለም ከሆነ, ምክንያቱ ምን ይመስልዎታል?	1. እኔ ስለተመረመርኩ 2. የእኔ ውጤት ስላላሳወቅኩ	

		3. መመርመር ስላልፈለገ	
		4. ሌላ ካለ ይገለፅ	

ክፍል5. ኤች.አይ.ቪ ከእናት ወደ ልጅ እንዳይተላለፍ መከላከልን የተመለከቱ መጠይቆች

ተ.ቁ	ጥያቄዎች	የመልሶች ኮዶች	ይለፉ
146	ኤች.አይ.ቪ ከእናት ወደ ልጅ ይተላለፋልን?	1. አዎን 2. አይተላለፍም → 3. አላውቅም	150 ይለፉ
147	ለ142 መልስዎ አዎን ከሆነ መቼ ይመስለዎታል የሚተላለፈው?	1. በእርግዝና ጊዜ 2. በወሊድ ጊዜ 3. በጡት ማጥባት ጊዜ 4. አላውቅም-----88	
148	ኤች.አይ.ቪ ከእናት ወደ ልጅ መተላለፉን የሚቀንሱ መንገዶች እንዳሉ ያውቃሉ?	1. አዎን 2. የለም 3. አላውቅም-----88	
149	ለ148 መልስዎ አዎን ከሆነ የትኛው መንገድ ይመስልዎታል? (ከአንድ በላይ መልስ መስጠት ይችላሉ)	1. እርግዝና እንዳይከሰት ማድረግ 2. ፀረ ኤች.አይ.ቪ መድኃኒት መጠቀም 3. በአፕራሲዮን መውለድ 4. እስከ 6ወር ጡት ብቻ ማጥባት 5. ጡት ባለማጥባት 6. ሌላ ካለ ይጠቀስ -----88	

ክፍል 6 የግብረሰጋ ግንኙነትና የስነ-ተዋልዶ ጤና ፍላጎትን የተመለከቱ ወጣቶች

ተ.ቁ	ጥያቄዎች	መልሶች ኮዶች	ይለፉ
150	ስለስነ-ተዋልዶ-ጤና ከፀረ ኤች.አይ.ቪ ሃኪምዎ ጋር ለመወያየት ፍላጎት አለዎት?	1. አዎን 2. የለኝም 3. ሌላ ካለ ይጠቀስ----88	
151	ስለ ስነ-ተዋልዶ ጤና ከፀረ ኤች.አይ.ቪ ሃኪምዎ ጋር ተወያይተው ያውቃሉ?	1. አዎን 2. የለም 3. ሌላ ካለ ይጠቀስ -----88	
152	ለ149 መልስዎ አዎን ከሆነ የትኞቹ የስነ-ተዋልዶ ጤና ርዕሶች ላይ ከሃኪምዎ ጋር ተወያይተዋል? (ከአንድ በላይ መመለስ ይችላሉ)	1. የቤተሰብ ዕቅድና የወሊድ መቆጣጠሪያ 2. ስለግብረሰጋ ግንኙነት 3. ስለ እርግዝና ልጅ የመውለድ ፍላጎት 4. ከእናት ወደ ልጅ ኤች.አይ.ፊ እንዳይተላለፍ ስለመከላከል 5. ጤናማ የፅንሰ ማቋረጥ አገልግሎት 6. ሁለትዮሽ መከላከያ/ ኮንዶም 7. የድንገተኛ እትግዝና መከላከያ 8. እርግዝና እና HIV 9. ሌላካለ ይጠቀስ-----88	
153	በእርስዎ ግንዛቤ ከፀረ ኤች.አይ.ቪ ሃኪምዎ ጋር የተወያዩባቸውን የስነ-ተዋልዶ ርዕሶች በበቂ ሁኔታ ተዳሰዋል ብለው ያስባሉ?	1. አዎን 2. አይመስለኝም 3. አላውቅም -----88 4. መልስ የለም	
154	ባለፉት 12 ወራት ውስጥ የግብረ ሰጋ ግንኙነት አድርገው	1. አውቃለሁ 2. አላውቅም-----88	

	ያውቃሉ?	3. አላስታውስም 4. መልስ የለም	
155	ለጥያቄ 154 መልሶ አዎ ከሆነ፣ የግብረ ስጋ ግንኙነት የፈፀሙት ከማን ጋር ነበር?	1. ከቋሚ (ባል ወይም የፍቅር ጓደኛ) ጋር→ 2. ቋሚ ካልሆነ ተቃራኒ የታ ጋር 3. ሌላ ካለ ይገለፅ-----88 4. መልስ የለም	ወደ 158 ዝለይ
156	ለጥያቄ 155 መልሶ ቋሚ ካልሆነ ተቃራኒ የታ ጋር ከሆነ (2) በግብረ ስጋ ግንኙነት ወቅት ኮንዶም ተጠቅመው ነበር?	1. አዎን 2. አልተጠቀምኩም→ 3. አላስታውስም 4. ሌላ ካለ ይጠቀስ -----88	ወደ 157 ዝለል
157	ለጥያቄ 156 መልስዎ አዎን ከሆነ፣ ቋሚ ካልሆነው የተቃራኒ የታ ጋር ኮንዶም አጠቃቀመዎ እንደት ነበር?	1. የግብረ ስጋ ግንኙነት በፈፀምኩ ጊዜ ሁሉ 2. አልፎ አልፎ 3. ሌላ ካለ ይጠቀስ -----88	
158	ለጥያቄ 156 መልስዎ አዎን ከሆነ፣ ኮንዶም የተጠቀሙት ለምን ነበር?	1. እርግዝናን ለመከላከል 2. ጓደኛዬ ፖዘቲቭ ስለሆነ ከቫይረሱ ለመከላከል 3. የጤና ባለሙያው በሠጠኝ ምክር መሰረት 4. ለሌላ የቫይረሱ ዝርያ ላለመጋለጥ 5. በሌላ(ሎች) የአባዛዘር በሽታዎች ላለመጠቃት 6. ሌላ ካለ ይጠቀስ-----88	
159	ኮንዶም ካልተጠቀሙ ምክንያትዎ ምን ነበር?	1. ባለቤቴ (ጓደኛዬ) ኤች ኤይ.ቪ. ፖዘቲቭ ስለሆነ 2. ጓደኛዬ ስላልፈለገው 3. ደስ ስለማይለኝ	

		<p>4. ልጅ እንዲኖረኝ ስለምፈልግ</p> <p>5. የት እንደማገኝ ስለማላውቅ</p> <p>6. ሌላ ካለ ይጠቀስ-----88</p>	
160	<p>ኤች.አይ.ቪ ፖዘቲቭ መሆንዎን ካወቁ በኋላ እንደው ባጠቃላይ ከምን ያህል የተለያዩ ሠዎች ጋር የግብረሰጋ ግንኙነት ፈፀመዋል?</p>	<p>1. ቁጥሩን ይጻፉ-----</p> <p>2. አላስታውስም</p> <p>3. ሌላ ካለ ይጠቀስ-----88</p>	
161	<p>ባለፈው ዘመን ወራት ውስጥ እርስዎ፤ ባልዎ ወይም የተቃራኒ ያታ ጓደኛዎ የተለያዩ አባላዘር በሽታ ምልክት ነበረብዎት ለምሳሌ (ከብልት ለየት ያለ ፈሳሽ ; ወይም የሽንት ማቃጠልና ቁስለት ወይም እባጭ የመሳሰሉት...)</p>	<p>1. አዎ</p> <p>2. የለም</p> <p>3. አላስታውስም</p>	
162	<p>ለ161 መልስዎ አዎን ከሆነ፤ ህክምና ከየት አገኙ?</p>	<p>1. ከአፀረ ኤች አይቪ.ህክምና ክፍል</p> <p>2. ከሌላ የመንግስት ጤና ተቋም</p> <p>3. ከግል የጤና ድርጅት</p> <p>4. ከባህል ሐኪም</p> <p>5. ከመድሃኒት ቤት</p> <p>6. ህክምና አላደረግኩም</p> <p>7. ሌላ ካለ ይጠቀስ -----88</p>	

ANNEX 5: ORAL INFORMED CONSENT FOR INDEPTH INTERVIEW

Addis Ababa University

School of public health

Individual consent form

Study on “Assessing unmet reproductive health care and occurrence of unintended pregnancy among HIV positive woman in ART units in Addis Ababa”

Information sheet:

Greeting

My name is -----

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

I am working in the research team, which is conducted by Addis Ababa University in collaboration with the ministry of health. Here at -----hospital ARV treatment unit we are interviewing HIV positive women on ART units and health professionals working in ART and PMTCT units. The main purpose of the study is to assess how big the problem of unintended pregnancy is on HIV infected women who are on ART, to assess and also assessing utilization of contraception, safe termination of pregnancy among HIV positive women in ART follow up units. The study will not cause any challenges on reproductive health care services among HIV positive women in the ART units. There will be no harm associated with the research on you. While your responses will help through policy formulation and program implementation to improve reproductive health services for HIV positive women. I will use tape recorder to ensure accuracy of the data collection but the information that you will give us will be kept strictly confidential and is to be used only for the purpose of this study. Your ideas and information is quite useful to achieve the objectives of the study and to improve reproductive health services for HIV positive women.

Are you willing to participate in the interview?

€Yes

€No

If you are willing we can continue.

Thank you

Consent form

I have read or have been read the information or there is a witness when the information was read (for those who cannot read or write); I understand the information given fully.

So I am willing participate in the discussion.

Date of the interview-----

Name of the hospital-----

Interviewer's name, signature-----

In case you need to contact:

Contact address of the investigator-----Name: Girum Zewdu

Tel. 0911742435

Po.box. 46189

Email.girumey@gmail.com

Annex 6: የጥልቅ መጠይቅ የግንዛቤ እና ፈቃደኝነት መጠየቂያ

በአዲስ አበባ ዩኒቨርሲቲ የህክምና ፋኩልቲ የህብረተሰብ ጤና ሳይንስ ትምህርት ቤት ከኤች.አይ.ቪ ኤድስ ጋር የሚኖሩ እና በፀረ ኤች.አይ.ቪ ህክምና መስጫ ጣቢያዎች ተከታታይ ህክምና የሚያደርጉ ሴቶችን የስነ-ተዋልዶ ጤና ክብካቤ ፍላጎት አለመሙላት እና ያልተፈለገ እርግዝና ክስተትን ለማጥናት የተሳታፊዎችን ግንዛቤ እና ፈቃደኝነት መጠየቂያ ቅፅ።

እንደምን አደሩ /ዋሉ? እንደምን ነዎት? እኔ ስሜ -----ይባላል። በአዲስ አበባ ዩኒቨርሲቲ የህብረተሰብ ጤና ሳይንስ ትምህርት ቤት የጥናት ቡድን አባል ነኝ።

በመጀመሪያ ስለሰጡኝ ጊዜ በጣም አመለካኛለሁ።

የዚህ ጥናት ዋና አላማ የኤች አይ ቪ ቫይረስ በደማቸው ውስጥ ያለባቸውንና የፀረ ኤች.አይ.ቪ የህክምና ክትትል በማድረግ ላይ ስላሉ ሴቶች የስነ-ተዋልዶ ጤና ክብካቤ ፍላጎት አለመሙላት ፣አጠቃቀምና እና ያልተፈለገ እርግዝናን ክስተት ለመዳሰስ ነው። ጥናቱ በተሳታፊዎች ላይ የሚያደርሰው ምንም አይነት ጉዳት የለም፤የተወሰነ ሰዓት ለውይይቱ ከመውሰድ ውጭ።

የምታደርጉት ውይይትና የምታነሷቸው ነጥቦች የጥናቱን ዓላማ ለማሳካትና ከቫይረሱ ጋር ለሚኖሩ ለሴቶች የስነ-ተዋልዶ ጤና ክብካቤ አገልግሎት አሰጣጥ ላይ የፖሊሲ ቀረፃና የፕሮግራም አፈፃፀም ማሻሻያ ለማድረግና በዚህ ረገድ ከቫይረሱ ጋር የሚኖሩ ሴቶችን ተጠቃሚ ለማድረግ በጣም ጠቃሚ ነው።ጥልቅ መጠይቁ በሚደረግበት ጊዜ የሚነሡ ነጥቦች በሙሉ ቤቴፕ ሪከርደር ሪከርድ አደርጋለሁኝ ይህም የተነሡ ነጥቦችን ላለመርሳትና ሁሉንም ለማስታወስ ይረዳኝ ዘንድ ነው።

ከዚህም ሌላ ላረጋግጥለሁት የምወደው እርስዎ የሚሰጡት ማንኛውም አይነት መረጃ እና ሀሳብ ሚስጥራዊነቱ የተጠበቀና ለዚህ ጥናት አላማ ብቻ የሚውል መሆኑን ነው። የተሳታፊ ስምም አይፃፍም።

በጥናቱ ለመሳተፍም ላለመሳተፍም መብትዎ የተጠበቀ ነው።

አሁን በጥናቱ ላይ ለመሳተፍ ፈቃደኝነትዎን ይግለፁልኝ።

ፈቃደኛ ነኝ ፈቃደኛ አይደለሁም

ፈቃደኛ ከሆኑ አመስግኖ በስምምነታቸው እንዲፈርሙ ማድረግ።

የስምምነት ቅፅ

ከላይ ያለው መረጃ ተነቦልኝና ተረድቼ በጥናቱ ላይ ለመሳተፍ ፈቃደኝነቴን በፊርማዬ አረጋግጣለሁ።

የተሳታፊ ስም -----ፊርማ

መጠይቁ የተደረገበት ቀን -----

የጠያቂው ስም -----

የተመራማሪዎ መ.ሉ.ዲ.ራሻ ---ስም ግሩም ዘወ.ዳ.

ስ.ቁ 0911742435

ፖ.ሳ.ቁ 46189

Email girumey@gmail.com

ANNEX 7: TOPIC GUIDE FOR INDEPTH INTERVIEW

SOCIO DEMOGRAPHIC INFORMATION

Age (incomplete years) -----

Ethnicity -----

Religion -----

Educational level- -----

Current marital status-----

Current occupation-----

No of children -----

INFORMATION ON UNMET REPRODUCTIVE HEALTH CARE AND UNINTENDED PREGNANCY

Q1.What is the reproductive health concerns for women living with HIV? Which reproductive problems are considered as the most important ones? (Unintended pregnancy, unmet reproductive health care needs) how? Why?

Q2.Ever pregnancy after you learn your HIV status

Q3.The situation of your pregnancy

Q4.What is your reason not to avoid occurrence of unintended pregnancy?

Q5.What do you think are factors related with the occurrence of unintended pregnancy for a woman with HIV?

Q7. Induce any abortion after you learn your HIV status

Q8. Where was the induction undertaken?

Q9. Do you know the availability of safe abortion services for free? How do you see the utilization of safe abortion services for HIV positive women?

Q10.How important is the availability of safe abortion services for HIV positive women?

Q11.what do you say about access of safe abortion services for HIV positive woman?

Q11. Need to use family planning?

Q12. Are you using family planning currently?

Q13. Why don't you use?

Q14. There are women who are fecund and wanted to use method of family planning but are not using any what do you think is the problem with this none use of women in the ART units?

Q15.what do you think are the factors related with non-use of family planning for HIV positive women who want to use family planning (Probe, Opposition from husbands about contraception use, knowledge/information lack, access to contraception, health providers approach(interaction), lack of confidentiality and counseling, fear of side effects.....)

Q16.What is the challenges to meet reproductive health care needs for HIV positive women in the ART units?

Q17.How do you see the counseling about reproductive health issues with your provider

- Family planning/unintended pregnancy; How?
- Safe TOP
- PMTCT
- Future child birth desire

(Prob, quality of the counseling, feel at ease when discussing those issues, the frequency of discussion,)

Annex 8:

የጥልቅ መጠይቅ መምሪያ ነጥቦች

መረጃ ስለ ማህበራዊ ሁኔታ

እድሜዎ ስንት ነው?(በሙሉ-አመት ይገለጽ)

በአሁኑ ወቅት ያሉበት የጋብቻ ሁኔታ

ስራዎት ምንድን ነው?

ዘርዎት ምንድን ነው?

ሀይማኖትዎ ምንድን ነው?

ጠቅላላ የወርገቢዎ?

የትምህርት ደረጃዎት?

1. ከኤች አይ ቪ ጋር ለሚኖሩ ሴቶች የትኖቹ የስነተዋልዶ አጀንዳዎች የተለየ ትኩረት መስጠት አለባቸው?(ያልተፈለገ እርግዝና፣ የቤተሰብ እቅድ አገልግሎት አለመሙዋላት) ለምን? እንደት?
2. እራስዎትን ካዎቁ ቡህላ እርግዝና አጋትሞዎት ያወቃል?
3. እርግዝናዎትን ክስተት እንደት ይገልጹታል?
4. በእርስዎ አስተሳሰብ ኤች አይ ቪ ፖዘቲቭ በሆኑ ሴቶች ላይ ያልተፈለገ እርግዝና ክስተት ጋር ተያይዘው ሊነሱ የሚችሉ ምክንያቶች ምንድን ናቸው?
5. ኤች አይ ቪ ፖዘቲቭ መሆንዎን ካዎቁ ቡህላ የጽንሰ ማስዎረድ አድርገው ያወቃሉ?
6. የጽንሰ ማስዎገዱን የት ነበር ያደረጉት?
7. ጠናማ የሆነ የጽንሰ ማስወገድ አገልግሎት በየተቋማቱ እንዳለ ያወቃሉ? ኤች አይ ቪ ዘቲቭ ሴቶችን ጠናማ የሆነ የጽንሰ ማስወገድ አገልግሎት አጠቃቀም እንደት ያዩታል?
8. ጠናማ የሆነ የጽንሰ ማስወገድ አገልግሎት ለ ኤች አይ ቪ ዘቲቭ ሴቶች ስላለው ጠቀሜታ ምን ይላሉ? ተደራሽነት?
9. አሁን የቤተሰብ እቅድ አገልግሎት መጠቀም ይፈልጋሉ?
10. በአሁኑ ሰአት የቤተሰብ እቅድ እየተጠቀሙ ነው?

11. አሁን ለምን ድንገድ የቤተሰብ እቅድ የማጠቀሙት?
 12. መወለድ የማይፈልጉ እና በወሊድ እድሜ ክልል ውስጥ ያሉ ነገር ግን የወሊድ መቆጣጠሪያ የማይጠቀሙ ኤች አይ ቪ ፖዘቲቭ ሴቶች አሉ። ስለነዚህ ሴቶች አለመጠቀም ምን ይላሉ?
 13. የወሊድ መቆጣጠሪያ መጠቀም ፈልገው ንገር ግ ስለማይጠቀሙ ሴቶች ምን ምን ምክንያቶች ሊጠቀሱ ይችላሉ? (እውቀት፣ ከባላቸው ጋር አለመስማማት፣ የጎንሰሽጉዳት፣ ከጠናባለሙያዎች ጋር ባለው ሁኔታ.....)?
 14. ለኤች አይ ቪ ፖዘቲቭ ሴቶች ስነ-ተዋልዶን በተመለከተ ለፍላጎታቸው አለመማላት በፀረ ኤች አይ ቪ ህክምና ክፍል ምንምን ይላሉ?
 15. በፀረ ኤች አይ ቪ ህክምና ክፍል የሚደረገውን የ ስነ-ተዋልዶ ጠና ምክክርን በተመለከተ ምን ይላሉ? (ጥራት፣ ሽፋን፣ ገልጽነት፣ አገልግሎቱ መኖሩ.....)?
- የቤተሰብ እቅድ/ያልተፈለገ እርግጥ
 - ጠና የሆነ የጽንሰ ማስዎገድ
 - ኤች አይ ቪ ከእናት ወደ ልጅ እንዳይተላለፍ ስለማድረግ
 - ስለ እርግዝና እና ልጅ የመወለድ ፍላጎት