

**ASSESSMENT OF THE MAGNITUDE AND DETERMINANTS OF  
UTILIZATION AND DEMAND FOR PRE-MARITAL VCT IN  
CIVIL MARRIAGES IN ADDIS ABABA,ETHIOPIA**

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## LIST OF ABBREVIATIONS

<b>AIDS</b>	Acquired Immunodeficiency Syndrome
<b>ANC</b>	Antenatal care
<b>BSS</b>	Behavioral surveillance survey
<b>CDC</b>	Center of disease control
<b>CI</b>	Confidence interval
<b>CSA</b>	Central statistics authority
<b>DHS</b>	Demographic and health survey
<b>FHI</b>	Family health international
<b>HIV</b>	Human immunodeficiency virus
<b>MOH</b>	Ministry of Health
<b>OR</b>	Odds ratio
<b>PLWHA</b>	People living with HIV/AIDS
<b>PMVCT</b>	Pre-marital VCT
<b>SSA</b>	Sub-Saharan Africa
<b>SD</b>	Standard deviation
<b>SPSS</b>	Statistical package for social science
<b>STD</b>	Sexually transmitted disease
<b>UNAIDS</b>	United nations program on AIDS
<b>VCT</b>	Voluntary counseling and testing for HIV
<b>WHO</b>	World health organization

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## **ABSTRACT**

A cross-sectional study was conducted from January 2003 to February 2003 to investigate the magnitude and determinants of utilization and demand for pre-marital voluntary HIV testing and to describe the VCT schemes preferred by newly marrying individuals.

A total of 640 individuals (320 males and 320 females) who attended the civil marriage in Addis-Ababa municipality were enrolled in the study. Fifty five percent of study subjects reported having had pre-marital HIV testing and among those who did not have pre-marital HIV testing (284), 63.4% of them claimed to wish to have testing, but had not had it for some reason (unmet need group). The main reason given by the unmet need group was thinking that he/she feels healthy. Most couples had sexual relations but consistent condom use was reported by only 15.5% of them.

Being of Gurage ethnicity, having been introduced more than five years back and frank discussion between couples on HIV/ VCT were seen to be predictors of pre-marital HIV testing in both males and females. The demand for pre-marital VCT was significantly (positively) associated with age 35 and above, and free discussion between couples on HIV/ VCT. The agreement level with in pairs for utilization as well as demand of pre-marital HIV testing was good, while that of future plan for testing among the non-tested ones was almost zero.

Confidential testing, integrated VCT services, medical doctors as counselors and a face-to-face method of hearing results were the VCT schemes preferred by most respondents.

Advocacy on pre-marital VCT, promotion of free discussion between couples on STD/ HIV, improving people's awareness of self-perceived risk, consistent condom use before deciding for marriage and integrated VCT sites are recommended.

## **1-INTRODUCTION**

HIV has spread like wildfire, causing untold suffering and death, and creating profound development challenges. Globally, an estimated 42 million people are infected with HIV and 16,000 new infections occur every day. Developing countries bear more than 90 percent of the global burden of HIV/AIDS, which threatens to undermine the development gains of recent decades. These countries face not only the immediate challenge of caring for people affected by HIV/AIDS, but also a long-term development crisis (1, 2).

HIV probably started to spread in Ethiopia in the early 1980's. The first evidence of HIV infection was found in 1984 and the first AIDS case was reported in 1986. Although HIV prevalence was very low in Ethiopia during the early 1980's, it has been increasing rapidly since the early 1990's. It was estimated that by 1989, adult HIV prevalence had increased to 2.7%. The estimated adult prevalence of 7.1% in 1997 has increased to 7.3% in 2000(3).

Recent report (2002) showed that urban prevalence rate continues to be high at 13.7% while the HIV prevalence rate for rural areas remains relatively low at 3.7%. HIV prevalence for Addis Ababa is estimated to be 15.6%. The number of persons living with HIV/AIDS in the same report is estimated at 2.2 million (2 million adults and 200000 children), 219400 of which are full-blown AIDS cases (4).

Given the importance of heterosexual transmission in the spread of the virus, many children are likely to lose both parents. In view of the prevailing AIDS-related general and age specific death rates, the number of orphans in Ethiopia would increase from 1.2 million in 2001 to 1.8

million by 2007 and to 2.5 million in 2014. About 30-40% of infants borne to infected mothers are likely to be infected with HIV and most will die of AIDS with in two years (4).

Globally, Ethiopia has the 16<sup>th</sup> highest HIV/AIDS prevalence and the third largest number of people living with HIV/AIDS (PLWHA). Beyond its vast toll in suffering and death, AIDS may also be costing Ethiopia significantly in its economic growth every year. In urban areas, AIDS patients occupy half of the hospital beds. About 90% of reported AIDS cases are between the ages of 20 and 49, the most important age group from both an economic and a parenting stand point. Stigma, fear and denial are still common (5).

There is no known vaccine or medical treatment to contain the primary HIV infection. Presently available therapy and preventive measures coupled with information, education, counseling programs and supportive networks can delay disease progression, prevent or minimize opportunistic infections, assist in the maintenance of reasonable health and prevent transmission to uninfected individuals (6).

HIV voluntary counseling and testing (VCT) has been shown to have a role in both HIV prevention and, for people with HIV infection, as an entry point to care. VCT provides people with an opportunity to learn and accept their HIV sero-status in a confidential environment with counseling and referral for ongoing emotional support and medical care. Counseling and testing can be provided to couples who wish to attend sessions together before and after testing. This has been shown to be a successful approach in some countries. Counseling is important to help couples accept safer sex practices to prevent transmission to the uninfected

partner. Couple counseling of HIV can also be provided as part of pre-marital counseling, and can continue after the testing is completed (7).

Most HIV infection in Sub-Saharan Africa occurs during heterosexual intercourse between couples in a relationship. Women who are infected by HIV sero-positive partners risk infecting their infants in turn. Despite their salience as social contexts for sexual activity and HIV infection, couple relationships have not been given adequate attention by researchers in Sub-Saharan Africa. Studies in Africa report that VCT is associated with reduced risk behaviors and lower rates of sero-conversion among sero-discordant heterosexual couples. Increased attention on couples-focused VCT provides a high-leverage HIV prevention intervention for African Countries (8).

In Rakai District, Uganda, the overall yearly incidence of HIV among HIV-negative sex partners of HIV-positive people was 12%, and increased with viral load in the infected person. Couples who embark on long-term relationships or marry unaware of their differing HIV infection status are a source of further adult and pediatric infections, and HIV-negative people in such discordant relationships are one of the largest and most vulnerable groups in Africa (9). It appears that VCT for couples contributes in preventing HIV infection by heterosexual transmission as well as mother-to-child HIV transmission. VCT in the pre-marital state can play a tremendous role in the prevention and control of HIV/AIDS.

A gap analysis assesses data sources and helps to determine what gaps in HIV/STD prevention services currently exist. It provides the responsible parties with the information necessary to supplement or redirect funding to areas of unmet need for high priority areas (10).

The discrepancy between stated desire of VCT and observed behavior is referred to as ‘‘Unmet Need’’. Programs need to address the unmet need to be successful and cost effective. Research on the magnitude and determinants of utilization and demand for VCT in general and pre-marital VCT in particular is scarce. The causes of unmet need vary from couple to couple, and from place to place.

The aim of this study is to improve the understanding of the magnitude and determinants of usage and demand (unmet need) in pre-marital VCT and to enhance the ability of HIV/AIDS programs to reduce unmet need.

## **2-LITERATURE REVIEW**

### **2.1-Overview on VCT**

Early knowledge of HIV infection is now recognized as a critical component in controlling the spread of HIV infection (11). Cohort studies have demonstrated that many infected persons decrease behaviors that transmit infection to sex or needle sharing partners once they are aware of their positive HIV status (12-14). HIV infected persons who are unaware of their infection do not reduce risk behaviors (15). Persons tested for HIV who do not return for test results might even increase their risk for transmitting HIV to partners (16).

The array of HIV test technologies available has expanded, possibly enhancing a person's willingness to be tested and learn his or her HIV status. HIV tests can use specimens collected by less invasive methods (saliva, urine, finger prick) nowadays. Rapid HIV testing allows clients to receive results the same day, which is useful in urgent medical circumstances and catches clients who tend not to return for HIV test results if it were with appointment (17).

Despite the advances in HIV prevention and care, a substantial number of opportunities for HIV prevention through counseling and testing are missed. At publicly funded sites, approximately 70% of persons tested received their results and information regarding the test, but fewer persons likely received HIV prevention counseling and referrals. In private settings, a lower proportion of all clients are tested and few receive prevention counseling and referrals (18). In many settings, HIV prevention counseling and testing are not uniformly offered. HIV counseling seeks to reduce HIV acquisition and transmission through information about HIV and HIV prevention counseling (19).

Advanced academic degrees or extensive experience are not necessary for effective HIV prevention counseling, though training is. In situations where health workers might not be able to provide counseling, auxiliary health professionals trained in HIV prevention counseling can provide the service. Although peer counseling has been successful in certain situations (19), research does not support matching clients with counselors based on same or similar backgrounds, sex, ethnicity, age or peer group for intervention efficacy (20-21).

Major roles recognized for HIV VCT include:

- Enabling HIV VCT clients to cope and take personal decisions related to HIV/AIDS.
- Assisting HIV VCT clients to initiate and maintain prevention behaviors.
- Serving as entry point to other HIV prevention as well as to care and support services.
- Helping to combat stigma and discrimination in the community.

Summaries from VCT centers show that a good number of couples in union and newly marrying couples visit their centers. In a report from VCT centers in Addis Ababa run by CARE international (22), of the total 2179 clients who received VCT services, 9.4% were couples. In a study done by Assefa Sime, 106(11.1%) of the total 953 attendees of VCT centers reported their reason of testing to be for pre-marital screening (23). From 20000 individuals who received VCT service at Bethezatha medical center (Addis Ababa), data analysis done on 7773 attendants revealed that the reason of testing given by the majority was to know their status while 10% of them sought VCT as pre-marital check-up (24).

According to a report by UNAIDS on Ugandan VCT practice, once VCT becomes accepted by the public, an increasing number of clients are likely to request VCT for "social" reasons such as testing before marriage or before a new relationship, and planning for the future rather than "medical" reason (25).

## **2.2- Impact of VCT**

In 1991, a study conducted among 149 sero-discordant couples in Kinshasa (Congo), demonstrated a marked increase in condom use among these couples, from less than 5% before the HIV-VCT intervention to 70% following the intervention (26). Another study carried out in Rwanda on the impact of HIV-VCT in a cohort of women reported an increase in condom use from only 7% having ever used condom before the intervention, to 16% in HIV sero-negative women and 35% in HIV sero-positive women after the intervention (27).

Analysis of data from 3000 clients receiving HIV VCT at the AIDS Information Center (AIC) in Uganda demonstrated a substantial reduction in risk behaviors at 3 and 6 months following the intervention (28).

In 1995-96, the Voluntary HIV-1 Counseling and Testing efficacy study group carried out a clinical trial in Kenya, Tanzania, and Trinidad, to determine whether VCT was effective in reducing risk behavior associated with sexual transmission of HIV-1. The first of the two studies revealed that the proportion of individuals reporting unprotected intercourse with non-primary partners declined significantly after VCT. The second study showed that although VCT is not as cost-effective as improvement of sexually transmitted disease services, VCT is

more cost-effective when it is targeted to high-risk groups. Many of the couples enrolled in the study made some change in their sex lives. Couples from the counseling and testing group showed a greater change in terms of less unprotected intercourse with each other and more abstinence from sex (29-30). In Uganda, HIV prevalence in those seeking VCT has declined between 1993 and 1997 from 23% to 15% among males and 35% to 28% among females (2).

### **2.3-Acceptance of VCT**

Acceptance of HIV testing is reportedly lower when clients have not been tested previously and are fearful of their ability to cope with their test results (31).

Testing is more likely to be accepted when (19): -

- Clients perceive their own HIV risk and acknowledge behaviors placing them at increased risk.
- Testing is Voluntarily and routinely offered.
- Methods of Protection for client confidentiality are in place.
- Anonymous testing is available.
- Alternative HIV testing technologies are offered to clients.
- Providers and clients perceive HIV counseling and testing to be beneficial for HIV prevention.

Studies have shown different acceptance rates for HIV testing in settings like STD clinics, ANC attendees and community. In a pilot study done in rural villages of Tanzania, among the 245 village residents who were offered VCT, 137 (55.9%) volunteered to participate and received both pre-test counseling and HIV testing (31). In South Carolina 398 (21%) of the

1929 patients attending STD clinic refused HIV testing (32) while 97 % of ANC attendees at Grand Memorial Hospital accepted VCT (33).

During September -October 1997, 13 studies located in west, east and South Africa, and Thailand were investigated on the acceptability of VCT in Antenatal clinics. The median over all acceptability of VCT was 69% (Range 33-95%). Acceptance rate for HIV testing was found to be 41.7 % in another study (34).

In a study done by Mohammed F. in 2000, out of the total of 720 study subjects (15-49 years age), 615 (85.4%) had intention of having VCT (86% of the male and 84.4% of the female study subjects). 73.6% of the study subjects had intention of asking their partner to get VCT (73.3% and 73.9% of the male and female subject respectively) .In the same study on preference of the type of VCT method, 61% preferred confidential-linked, 31.6% anonymous and 1.8% suggested getting VCT service openly or non-confidentially. With regard to preference on counselor, 51.9% chose physician, 29.1% trained counselor, 10.5% religious leader and 7.9% nurse counselor (35).

#### **2.4-Determinants of uptake of VCT**

In a study done in a South Carolina STD clinic the principal reason indicated for test refusal was found to be not feeling at risk of HIV infection. The principal reason indicated for test acceptance were wanting to know ones own status and wishing to prevent spread of the virus to partners (32).

Another study done in inner city parturients in Atlanta revealed that women who accepted HIV testing were more likely to be young, black and single ( $P < 0.001$ ) and less likely to have received education beyond high school (33). In a study done at a small village in Tanzania, the main reason given by test refusers was that they felt unlikely to catch HIV/AIDS while other reasons were being scared of testing positive, not allowed by spouse and could not give blood for testing (32). In a report of a study from HIV testing centers in California, the primary reason people gave for declining to participate was the waiting time between giving sample and receiving test result. Forty percent of the respondents in the same study stated that they would have avoided testing had it not been conducted anonymously (36). There are studies that showed couples who perceive themselves at risk of acquiring HIV are more likely to seek HIV testing than those who do not (34).

In another study, women were significantly less likely to receive VCT than men ( $P < 0.001$ ). Younger age, HIV positive status and no sexual partner in the past five years were associated with lower VCT participation for both men and women. Among women, higher VCT participation was associated with symptoms suggestive of AIDS and shopkeeper occupation (9).

### **2.5-Demand for HIV testing**

Studies done in Tanzania showed that 65% of the community would have liked to be tested for HIV but only 11% have managed to have testing (37). Recent studies indicate that many young people in countries where HIV prevalence is high want to know their HIV status. VCT services may be an appropriate entry point to address young people's HIV prevention and care

needs (38). In DHS in Kenya and Zimbabwe, more than 60% of approximately 6000 males and females ages 15 to 19 years who had not undergone VCT reported that they would like to be tested (39-40). In another survey of males and females ages 14 to 21 years, about 90% of 210 Ugandans and 75% of 122 Kenyans who said they had not received VCT services reported that they wanted to be tested (38). More than three quarters of untested respondents in Kenya and more than 90% in Uganda said they would like to be tested for HIV at some point in the future (38).

A steady increase in demand for counseling and testing for marriage was reported by the AIDS information center in Uganda in that the 6% clients for pre-marital VCT in 1992 rose to 33% in 1997(41).

Studies done in Kenya and Uganda indicated that youth would like access to HIV testing and counseling services if the services are confidential, honest and inexpensive.77%of untested respondents in Kenya and more than 90% in Uganda said that they would like to be tested for HIV at some point in the future (42).

The Malawi Demographic and Health survey (2000) found out that 9% of women and 15% of men reported that they have been tested for HIV. Three quarters of men and women, while not having been tested, report a desire to be tested for HIV (43).

According to the findings of DHS-Ethiopia, 2% of men reported that they have been tested for HIV and nearly two third of the men who have not been tested for HIV said that they want to be tested (44).

## **2.6-VCT in Ethiopia**

In Ethiopia, HIV counseling service began in the late 1980's with services expanding throughout the 1990's. In the early 1990's, about 3000 counselors were trained although the training programs were not standardized. National guideline on voluntary counseling and testing was introduced that helps to standardize the training and help the expansion of the counseling and testing services with in the community outside the health facilities (5).

The target groups for VCT in the strategic framework for the national response to HIV/AIDS in Ethiopia included all persons who seek HIV test regardless of any previous risky behavior. It was mentioned that special attention will be given to STI clinics, VCT attendees, FP clinics, ANC clinics, Red Cross Blood Banks, Youth facilities, sex partners of HIV infected persons, persons seeking repeat HIV testing and Blood donors (5).

A situation analysis was conducted in September 2000 on voluntary counseling and testing practices in Ethiopia. There were 80 institutions in the country involved in giving VCT services. The findings indicate that most health institutions in the regions do not follow standardized VCT guidelines. Health facilities did not have private rooms for HIV counseling (25). MOH stated that, currently there are 20 acknowledged VCT centers in Addis Ababa run by governmental, private and non-governmental organizations (4).

## **2.7-Willingness for VCT in Ethiopia**

In a study done among 15-49 years age group in Harar, intention of having VCT in males was more likely in condom users [OR=2.74(1.10,7.22)] while females who had no previous sexual contact were more likely to intend to have VCT as compared to the ones who had sexual contact [OR=2.73(1.21,6.92)]. In both sexes, no significant association between intention of having VCT and the socio-demographic variables was observed. In the same study, males who had no previous sexual contact and have never been married were more likely to report intention of asking their partner to get VCT than their counterparts [OR=1.80(1.01,3.33)] and [OR=2.30(1.37,3.85)]. In females, the intention of asking their partner to get VCT was more likely in those who had no previous sexual contact [OR=3.55(1.88,7.51)] and the never married ones [OR=3.16(1.78,5.78)] as compared to their counterparts. Females whose age is greater than 25 years were less likely to intend to ask their partner for VCT [OR=0.47(0.46,0.79)] as compared to the age group 25 and younger (35).

In a study done at Asossa, West Ethiopia, 39.9% of the respondents from the general population were willing to give blood for HIV testing and more than a third of the respondents had not considered it at all. Provision of HIV testing and counseling to married couples and pregnant mothers was accepted by 89.2% and 84.5% of the respondents respectively. Never married individuals [OR=0.45(0.24,0.89)] and those who have lived 11 years and above in Asossa [OR=0.68(0.48,0.97)] were less likely to have willingness for VCT (45).

In the Afar study, North Ethiopia, 124(41.5%) knew that there is VCT service in Dubti Hospital and 131(43.8%) of them reported to have willingness for VCT if requested by a physician or their partner. The provision of VCT to married couples and pregnant women was accepted by 228(76.3%) of the respondents. Among adult respondents, those in primary education were less likely to will for VCT as compared to secondary and above [OR=0.18(0.05,0.64)]. Among out of school youth, being female [OR=2.9(1.75,4.91)] and being Christian [OR=1.76(1.06,2.97)] were positively associated willingness to take VCT services. Adequate knowledge of the preventive methods and transmission of HIV among out of school youths were positive predictors of willingness for VCT services [OR=2.38(1.25,4.52)] and [OR=4.07(2.15,7.68)]. Adequate knowledge on preventive methods of HIV [OR=1.9(1.1,3.25)], history of previous marriage [OR=1.72(1.07,2.89)] and shorter duration of stay [OR=2.54(1.22,5.25)] among female sex workers were positive predictors of willingness for VCT (46).

## **RATIONALE OF THE STUDY**

Ethiopia has high prevalence of HIV and the commonest mode of transmission is heterosexual. Voluntary counseling and testing for HIV is now acknowledged with in the international arena as an efficacious and pivotal strategy for both HIV/AIDS prevention and care.

An understanding of factors that lead sexually active people including newly marrying couples to accept HIV testing is essential to the success of VCT program. Yet very little is known about the factors that influence newly marrying couples to accept or reject pre-marital VCT. This study was conducted to identify those factors, which can be helpful in designing and implementing possible interventions.

### **3-OBJECTIVES**

#### **3.1-General objectives**

- To assess the magnitude and determinants of utilization and demand of pre-marital VCT.

#### **3.2-Specific objectives**

- To estimate the magnitude of utilization of pre-marital VCT.
- To estimate the magnitude of demand /Unmet need of pre-marital VCT.
- To assess the factors associated with utilization of pre-marital VCT.
- To assess the factors associated with demand for pre-marital VCT.
- To identify the reasons of unmet need for pre-marital VCT.
- To identify the VCT schemes preferred by the couples.

## **4-METHODS AND MATERIALS**

### **1- Study area**

Addis-Ababa is the capital city of the Federal Democratic Republic of Ethiopia and the major urban center in the country. The CSA estimated the 2000 population of Addis-Ababa at about 2.65 million with a growth rate of 2.9 % per year and a male to female ratio of 0.94:1. Forty percent of the population are between 20 and 44 years of age (47). Much of the population growth in the city stems from migration from the countryside and smaller urban areas. Unemployment is high and there is a report that 60% of households earn less than 300 Eth. Birr per month. The city is characterized by substandard housing conditions, high infant and maternal mortality rates, inadequate health services and poor sanitation. The 1997 report by ENARP confirmed that most HIV infections in Addis Ababa are seen among adults between the ages of 20 and 49 with nearly equal number of male and female infections. The peak ages of HIV infection are 25-39 for males and 20-29 for females (48).

### **2- Study design**

A cross-sectional study on couples registering at the Addis-Ababa municipality for civil marriage from January 2003 to February 2003.

### **3- Source population**

All newly marrying couples in Addis-Ababa city from January 2003 to February 2003.

#### 4- Study population

According to the vital registration report of CSA (2000), there were 5191 new marriages in Addis Ababa in the year 1998/99; 28.4%, 32.3%, 32% and 7.3% being civil, religious, customary and other types of marriage respectively (49). The study population includes all newly marrying couples in Addis-Ababa municipality for civil marriage from January 2003 to February 2003. This study deals with civil marriages and might not represent the remaining types of marriage.

#### 5-Sample size

In a study done by Mohammed F. on VCT in Harar town in 2000(35),73.6 % of the respondents had the intention of asking their spouse to undergo HIV testing and this proportion is considered in the assumption of sample size determination. The number of participants to be interviewed for each of the male and female partners was calculated using the formula:

$$n = \frac{(Z_{\alpha/2})^2 p(1-p)}{d^2}$$

Where  $p= 73.6 \%$ ,  $d= 5\%$  margin of error,  $\alpha=0.05$  level of significance

Accordingly the sample size was calculated to be 296 and considering 10 % non-response rate ( $296*10\% \rightarrow 29.6$ ), the total sample size required comes to 325( $296+29$ ) for each male and female respondents. In the actual study 320 from each category were interviewed.

## **6-Selection of study subjects**

Couples who attended civil marriage in the municipality during the data collection period were interviewed after obtaining the verbal consent of each member of the couple independently. Selection of study subjects was done by convenience sampling until reaching the required sample size. Data was collected in January and February that are the busiest months for marriage. Probability samplings as well as quota sampling were not implemented to avoid accumulation (overcrowding) of people by doing so. Convenience sampling was used where couples were intermittently directed to interviewers by the registrar as interviewers became available; roughly a quarter to one third of the daily visits was interviewed.

There is a hall where different officials namely the receptionist, document evaluators, registrar and cashier do their job in sequence. Couples at first contact the receptionist to get the forms to be filled by the pairs. Later on they submit the filled form and other relevant documents to evaluators and if the documents are found complete, the registrar registers and directs them to the cashier. Then they wait for 15 to 30 minutes until they go to the signing room located next door. The interview was conducted during this waiting time at the corner of the hall at a distance from each other and other clients to avoid over hearing.

Exclusion criteria- Couples who had been married by other type of marriage and came to produce marriage certificate in the municipality were excluded.

## **7- Data collection tool**

A structured questionnaire was employed that consisted of four sections namely socio-demographic, sexuality, STD/HIV and VCT sections.

### **8- Recruitment and training of data collectors**

Recruitment- Two data collectors were selected, male and female interviewers for male and female respondents respectively. The male interviewer was 12+1, a clerk in a clinic and the female being a nurse.

Training- Two days training was given by the principal investigator to interviewers in the form of lecture, discussion and role-playing. A manual was given to each interviewer.

### **9- Pre-testing and data collection**

The questionnaire was pre-tested on 10 respondents (5 males and 5 females) and minor modifications were made .

Data collection- Interviews were conducted face to face after obtaining verbal informed consent from respondents and the interviewers confirming the consent by putting their respective signatures.

### **10- Data quality assurance**

- Questionnaire was formulated from standardized questionnaires (WHO, BSS).
- Questionnaire was translated from English to Amharic and back to English to assure consistency.
- The questionnaire was pre-tested after which the relevant changes were made with the input from pre-testing.
- The collected data was checked for completeness, accuracy, clarity and consistency by the principal investigator.

- The principal investigator was supervising the performance of the data collectors on daily basis.

## **11- Study variables**

### Dependent variables

- Pre-marital HIV testing (Users and Non-users)
- Demand for HIV testing among Non-users (Yes and No)

### Independent variables

- Socio-demographic variables
- Previous sexual history
- Knowledge about STD/HIV and VCT
- Risk perception, discussion between couples
- Attitude towards HIV positive result

## **12- Data entry and analysis**

Data was entered using Epi-info version 6.04d software. Analysis was carried out using Epi-info version-6 and SPSS-10 statistical packages. Frequencies of different variables were computed for description as appropriate. Odds ratio with 95% confidence interval were computed to assess the presence and degree of association between dependent and independent variables. Logistic regression was used to control the possible confounding effect of selected variables and for prediction. Level of agreement with in pairs for selected variables was assessed using Kappa statistical analysis.

### **13- Ethical considerations**

Ethical clearance was obtained from Addis-Ababa University, Faculty of Medicine Ethical Committee. Official letter was written to Addis-Ababa city council and region 14(Addis-Ababa) Health Bureau.

Before the interview each respondent was told about the aim of the study, the possible benefit from the study and confidentiality. Informed consent was obtained individually and any respondent who refused to participate in the beginning or middle of the interview was exempted.

### **14-Benefit to study subjects**

At the end of each interview, respondents were offered health education on the benefit of VCT in general and pre-marital VCT in particular.

## **OPERATIONAL DEFINITIONS**

**Adequate knowledge** – Respondents who correctly identify three or more modes of transmission or preventive ways of HIV.

**Anonymous HIV testing** - Client's identifying information is not linked to testing information.

**Civil marriage** – Marriage conducted in the office of the municipality.

**Confidential HIV testing** – Client's identifying information is linked to testing information.

**Consistent condom use** – Use of condom in each sexual intercourse.

**Demand for PMVCT**- It refers to the reported desire for pre-marital HIV testing among those respondents who did not have PMVCT.

**Free standing VCT site** – Facilities that serve only VCT services.

**Integrated VCT site** – VCT as an integral part of other ongoing health services.

**Pre-marital VCT** – VCT that was purposely undertaken to arrange for marriage.

**Self perceived risk** – Acknowledging ones own risk of acquiring HIV.

**Sero-discordant couples** – A state where only one of the couples is HIV positive.

**Sexual contact / relation** – It considers only penetrative vaginal sex.

**Utilization of PMVCT**- It refers to respondents who reported to have had pre-marital HIV testing.

## **5-RESULTS**

### **Socio-demographic Characteristics**

A total of 660 newly marrying individuals were enrolled in the study with a response rate of 96.7%(640/660). The majority of the respondents were in the age group 25-34 years (59.4%), Amhara by Ethnicity (62%) and Orthodox by religion (87.2%) with a male to female ratio of 1:1(Table-1).

A total of 328(51.3%) belong to secondary school category by education with 30% representing the private employee group. Regarding monthly income, 23.8% had no income (all females) and 16.7% earned 301-600 per month (Table-1).

The mean (SD) age of male subjects was 33.1(6.6) years while that of females was 26.7(4.6) years. The age range for males and females was 22-69 and 17-43 respectively. Females were seen to be involved in marriage at an earlier age than males and males were seen to continue marrying at a later age, up to 69 years in this study (Table-1).

**Table-1 : Socio-demographic characteristics of study subjects, Addis Ababa, 2002.**

Characteristics	Male N=320 n(%)	Female N=320 n(%)	Total N=640 n(%)
<b>Age in years</b>			
15-19	----	14(4.4)	14(2.2)
20-24	16(5)	90(28.1)	106(16.6)
25-29	76(23.8)	132(41.3)	208(32.5)
30-34	110(34.4)	62(19.4)	172(26.9)
35-39	73(22.8)	19(5.9)	92(14.4)
40-44	31(9.7)	3(0.9)	34(5.3)
45 & above	14(4.4)	----	14(2.2)
<b>Ethnicity</b>			
Amhara	181(56.6)	216(67.5)	397(62)
Oromo	60(18.8)	37(11.6)	97(15.2)
Tigre	43(13.4)	33(10.3)	76(11.9)
Gurage	29(9.1)	32(10)	61(9.5)
Others	7(2.2)	2(0.6)	9(1.4)
<b>Religion</b>			
Orthodox	278(86.9)	280(87.5)	558(87.2)
Protestant	23(7.2)	23(7.2)	46(7.2)
Catholic	5(1.6)	3(0.9)	8(1.3)
Muslim	11(3.4)	11(3.4)	22(3.4)
Others	3(0.9)	3(0.9)	6(0.9)
<b>Education</b>			
Grade 0-6	4(1.3)	4(1.3)	8(1.3)
Grade 7-8	9(2.8)	18(5.6)	27(4.2)
Grade 9-12	120(37.5)	208(65)	328(51.3)
Diploma	115(35.9)	82(25.6)	197(30.8)
BA/BSC & above	72(22.5)	8(2.5)	80(12.5)
<b>Occupation</b>			
Jobless	----	78(24.4)	78(12.2)
Civil servant	110(34.4)	58(18.1)	168(26.3)
House Wife	----	56(17.5)	56(8.8)
Private employee	111(34.7)	81(25.3)	192(30)
Private owner	88(27.5)	19(5.9)	107(16.7)
Others	11(3.4)	28(8.8)	39(6.1)
<b>Monthly income</b>			
No personal income	----	152(47.5)	152(23.8)
50-150 Eth. Birr	5(1.6)	4(1.3)	9(1.4)
151-300 ”	11(3.4)	28(8.8)	39(6.1)
301-600 ”	56(17.5)	51(15.9)	107(16.7)
601-1000 ”	51(15.9)	47(14.7)	98(15.3)
1001-1500 ”	37(11.6)	14(4.4)	51(8)
1501 & above ”	58(18.1)	14(4.4)	72(11.3)
Don't know	82(25.6)	1(0.3)	83(13)
No response	20(6.3)	9(2.8)	29(4.5)

### **Sexual history and introduction to fiancée**

About 90% of the males and females reported having initiated sexual intercourse with a median age at first sex of 22 and 20 years for males and females respectively. A total of 286(98.4%) males and 288(90.3) females had sexual intercourse in the last one-year period of which only 16.4% of the males and 16.3% of the females were consistently using condom (Table-2).

The majority of the couples (54.4%) have been together for more than three years since their introduction, the major way of introduction being through relatives (38.4%) followed by accidental/ casual introduction (22.8%).

Of all the respondents, 562(87.8%) reported having had sexual contact with their fiancée with consistent condom use of 15.5% and condom at first sex with fiancée of 26.9%. Other marriage before the current one was reported by 32(10%) of the male and 11(3.4%) of the female respondents. Nine percent of males and 9.7% of females denied any sexual contact in their lifetime where as those with life time partner of two or more were 45% and 35.9% for males and females respectively. The remaining claimed to be involved only with this relationship (Table-2).

### **Knowledge about STD/HIV**

All respondents reported to have heard of HIV/AIDS of whom 78.8% of them were seen to have adequate knowledge regarding the modes of transmission while 64.1% had adequate knowledge on preventive measures for HIV. Only 7 respondents (1.1%) claimed to be at risk

of acquiring HIV with 80.6% of the total respondents being aware of the fact that a healthy looking person can have HIV infection. A total of 635(99.2%) reported having heard about STDs and all denied any STD in the past one year while 571(89.2%) of all respondents knew at least three of the four commonest STDs (Table-2).

### **Knowledge, preference & experience of VCT**

Of all study subjects, 91.4% reported having heard about VCT and 91.8% were aware of a center that provides HIV testing. Of the 585 respondents who had heard of VCT, the main information sources mentioned were mass media (52.6%), peers/Friends (51.9%) and Health institution (31.5%) (Table-2).

Of all the respondents, 356(55.6%) claimed to have had pre-marital HIV testing. Out of the 284 respondents without pre-marital HIV testing, 180(63.4%) claimed to wish to have testing, but had not had it for some reason (unmet need).

Discussion between spouses on HIV was reported by 90% and that on VCT was 88.1%. All study subjects agreed that premarital VCT is important, the main cited reasons being prevention of heterosexual transmission (93.6%), planning for the future (87.5%) and planning to have a child (86.3%) (Table-2).

From a total of 284 without pre-marital VCT, 252(88.7%) agreed that future HIV testing provides safety for their marriage while 254(89.4%) claimed that it is likely that they will be asking their partner for HIV testing in the near future.

**Table-2: Sexual characteristics and knowledge on STD/HIV/VCT of study subjects, Addis-Ababa, 2003.**

Characteristics	Male n(%)	Female n(%)	Total n(%)
Ever have sex → Yes	291(90.9)	289(90.3)	580(90.6)
No	29(9.1)	31(9.7)	60(9.4)
Sex with fiancée → Yes	279(87.2)	283(88.4)	562(87.8)
No	41(12.8)	37(11.6)	78(12.2)
No. of marriages →			
Only the current one	288(90.0)	309(96.6)	597(93.3)
Other prior marriage/s	32(10.0)	11(3.4)	43(6.7)
Life time sex partner			
None	29(9.1)	31(9.7)	60(9.4)
One	73(22.8)	170(53.1)	243(38.0)
Two or more	144(45.0)	115(35.9)	259(40.5)
No response	74(23.2)	4(1.3)	78(12.2)
Heard about HIV/AIDS → Yes	320(100)	320(100)	640(100)
No	---	---	---
Knowledge on HIV transmission			
Yes	198(61.9)	306(95.6)	504(78.8)
No	122(38.1)	14(4.4)	136(21.3)
Knowledge on HIV prevention			
Yes	162(50.6)	248(77.5)	410(64.1)
No	158(49.4)	72(22.5)	230(35.9)
Self perceived risk of HIV inf. → Yes	3(0.9)	4(1.2)	7(1.1)
No	317(99.1)	316(98.8)	633(98.9)
Knowledge about STDs → Yes	305(95.3)	266(83.1)	571(89.2)
No	15(4.7)	54(16.9)	69(10.8)
Heard about VCT → Yes	317(99.1)	268(83.8)	585(91.4)
No	3(0.9)	52(16.3)	55(8.6)
Know HIV testing center → Yes	248(77.5)	241(75.3)	489(76.4)
No	72(22.5)	79(24.7)	151(23.6)
Pre-marital HIV testing → Yes	181(56.6)	175(54.7)	356(55.6)
No	139(43.4)	145(45.3)	284(44.4)
Discussed on HIV to fiancée → Yes	288(90.0)	288(90.0)	576(90.0)
No	32(10.0)	32(10.0)	64(10.0)
Discussed on VCT to fiancée → Yes	282(88.1)	282(88.1)	564(88.1)
No	38(11.9)	38(11.9)	76(11.9)
Attitude towards pre-marital VCT			
Positive	320(100)	320(100)	640(100)
Negative	---	---	---
Demand for VCT among non-tested (n=284)			
Yes	88(63.3)	92(63.4)	180(63.4)
No	51(36.7)	53(36.6)	104(36.6)

N=320 unless mentioned in brackets.

The reasons given for not having HIV testing in the non-users and unmet need group is described in table-3.

**Table-3: Reasons for not having Pre-marital HIV testing among those who did not have HIV testing and among the unmet need group, Addis-Ababa, 2003.**

Reason for no HIV testing	Non-users of HIV testing (N=284) n(%)	Unmet need group (N=180) n(%)
Does not feel to have HIV	169 (59.5)	104 (57.8)
Did not consider testing	61 (21.6)	43 (23.9)
Tested for other reason some time back (Visa, Insurance, etc)	23 (8.1)	13 (7.2)
Afraid of positive result	14 (4.9)	10 (5.6)
Fear of stigma	13 (4.6)	7 (3.9)
Inappropriateness of VCT centers	3 (1.1)	2 (1.1)
Afraid of requesting spouse	1 (0.4)	1 (0.6)

Among all respondents, 398(62.2%) preferred HIV testing to be given within the existing health institutions and 228(35.6%) in a self-standing VCT center. With regard to the VCT scheme, 309(48.3%) favored confidential testing, 192(30%) non-confidential (open) and 139 (21.7%) anonymous testing.

Medical Doctors were the counselor of choice by 256 (40%), trained counselors by 219 (34.2%), HIV infected counselors by 80(12.5%), religious leaders by 46(7.2%) and nurses by 36(5.6%). Most (94.6%) preferred to hear the result of HIV testing face to face with the remaining ones being private letter, telephone and through spouse in decreasing order. Of 356 with premarital VCT, pretest & posttest counseling was reported by 89.9% and 90.2% of them. Only one person (0.3%) did not collect the test result. All agreed that VCT is useful, the benefits mentioned by them being before marriage (92.7%) accidentally exposed (69.7%), pregnant mothers (67.2%), health worker (61.3%), suspected people (57.7%) and the general public (3.8%).

### **Determinants of usage of premarital VCT**

Respondents with and without pre-marital VCT were compared by socio-demographic variables and Gurage ethnic groups were significantly less likely to have had pre-marital VCT [OR males=0.16(0.03-0.98);OR females=0.29(0.1-0.84)]. Tigre females, Oromo males and females in the no income and  $\geq 1501$  birr group were more likely to have VCT in bivariate analysis but this did not remain significant when controlled for other variables (Tables-4&5).

There was no statistically significant association in relation to previous sexual history, age at first sex, condom use and the number of sexual partners in both sexes. In terms of the current relationship, both males and females whose companionship after introduction exceeded three years were significantly less likely to have had pre-marital VCT (tables-5&6). Male study subjects who reported having had no sexual contact with their fiancée were significantly more likely to have HIV testing [OR=9.62(1.23-75.2)] while in females the association was not statistically significant. Males with a history of another prior marriage were significantly more likely to have had HIV testing in both bivariate and logistic regression [OR=2.96(1.22-7.18)] (Tables-6&7).

**Table-4: Association of socio-demographic variables with Practice of pre-marital VCT in males, Addis Ababa, 2003.**

Characteristics	Male pre-marital VCT (n=320)			
	Yes	No	Crude OR(95% CI)	Adjusted OR(95% CI) **
Age in years-15-19	---	---	---	
20-24	12	4	1.00	
25-29	34	42	0.27 (0.06-1.01)	0.29 (0.06-1.41)
30-34	63	47	0.45 (0.1-1.61)	0.98 (0.29-3.25)
35-39	48	25	0.64 (0.14-2.42)	0.62 (0.19-1.98)
40-44	18	13	0.46 (0.09-2.03)	0.44 (0.13-1.49)
>=45	6	8	0.25 (0.04-1.47)	0.54 (0.15-2.03)
Ethnicity-Amhara	106	75	1.00	
Oromo	25	35	<b>0.51 (0.27-0.95) *</b>	0.35 (0.06-1.94)
Tigre	32	11	2.06 (0.94-4.81)	0.69 (0.12-4.07)
Gurage	16	13	0.87 (0.37-2.1)	<b>0.16 (0.03-0.98) *</b>
Others	2	5	0.28 (0.03-1.8)	0.38 (0.06-2.41)
Religion-Orthodox	157	121	1.00	
Protestant	14	9	1.20 (0.46-3.25)	1.40 (0.38-5.23)
Catholic	1	4	0.19 (0-1.99)	1.08 (0.23-5.14)
Muslim	6	5	0.92 (0.23-3.93)	1.75 (0.24-12.59)
Others	3	---	2.31 (0.18-122.3)	---
Education-				
Grade 0-8	8	5	1.00	
Grade 9-12	62	58	0.67 (0.16-2.48)	1.18 (0.32-4.40)
Diploma	63	52	0.76 (0.18-2.82)	1.82 (0.93-3.55)
BA/BSc & above	48	24	1.25 (0.29-4.89)	1.52 (0.79-2.89)
Occupation				
Civil Servant	58	52	1.00	
Private Employee	73	38	1.72 (0.97-3.07)	0.47 (0.12-1.83)
Private Owner	46	42	0.98 (0.54-1.79)	0.31 (0.08-1.19)
Others	4	7	0.51 (0.10-2.16)	0.58 (0.14-2.35)
Monthly income				
50-300 Eth. Birr	12	4	1.00	
301-600	27	29	0.31 (0.07-1.21)	0.46 (0.13-1.65)
601-1000	29	22	0.44 (0.09-1.73)	1.51 (0.71-3.22)
1001-1500	16	21	0.25 (0.05-1.07)	1.11(0.51-2.45)
1501 & above	39	19	0.68 (0.14-2.68)	2.14 (0.88-5.20)
No response	58	44	0.44 (0.10-1.59)	0.88 (0.44-1.89)

\* Statistically significant

\*\* Adjusted for socio-demographic variables

**Table-5: Association of socio-demographic variables with Practice of pre-marital VCT in females, Addis Ababa, 2003.**

Characteristics	Female pre-marital VCT (n=320)		Crude OR(95% CI)	Adjusted OR(95% CI) **
	Yes	No		
Age in years-15-19	11	3	1.00	
20-24	50	40	0.34 (0.06-1.42)	0.12 (0.01-1.93)
25-29	67	65	0.28 (0.05-1.14)	0.40 (0.04-4.66)
30-34	37	25	0.40 (0.07-1.76)	0.47 (0.04-5.39)
35-39	9	10	0.25 (0.03-1.42)	0.34 (0.03-3.97)
40-44	1	2	0.14 (0.00-3.97)	0.57 (0.04-7.50)
>=45	---	---		
Ethnicity-Amhara	116	100	1.00	
Oromo	20	17	1.01 (0.48-2.19)	0.64 (0.29-1.42)
Tigre	25	8	<b>2.69 (1.11-7.20) *</b>	0.54 (0.20-1.48)
Gurage	14	18	0.67 (0.29-1.51)	<b>0.29 (0.10-0.84) *</b>
Others	---	2	0.43 (0.01-8.43)	---
Religion-Orthodox	157	123	1.00	
Protestant	9	14	0.50 (0.19-1.30)	0.64 (0.17-2.41)
Catholic	1	2	0.39 (0.01-7.63)	1.29 (0.28-6.11)
Muslim	5	6	0.65 (0.15-2.64)	0.44 (0.05-3.75)
Others	3	---	2.35 (0.19-124.3)	---
Education-				
Grade 0-8	9	13	1.00	
Grade 9-12	110	98	1.62 (0.61-4.49)	0.64 (0.25-1.61)
Diploma	52	30	2.50 (0.86-7.44)	0.46 (0.16-1.36)
BA/BSc & above	4	4	1.44 (0.21-9.98)	1.69 (0.23-12.65)
Occupation				
Jobless	88	67	0.86 (0.44-1.66)	3.96 (0.61-25.65)
Civil Servant	35	23	1.00	
Private Employee	43	38	0.74 (0.35-1.55)	0.76 (0.18-3.16)
Private Owner	6	13	0.30 (0.08-1.02)	0.86 (0.22-3.41)
Others	3	4	0.49 (0.07-3.24)	0.82 (0.43-1.55)
Monthly income				
50-300 Eth. Birr	11	21	1.00	
301-600	28	23	2.32 (0.85-6.48)	6.01 (0.92-39.5)
601-1000	26	21	2.36 (0.85-6.69)	2.59 (0.44-15.5)
1001-1500	9	5	3.44 (0.78-16.14)	2.61 (0.44-15.5)
1501 & above	10	4	<b>4.77(1.03-25.02) *</b>	1.91 (0.23-15.6)
No income	86	66	<b>2.49 (1.05-6.11) *</b>	0.86 (0.09-7.51)
No response	5	5	1.91 (0.35-10.22)	3.52 (0.18-69.8)

\* Statistically significant

\*\* Adjusted for socio-demographic variables

**Table-6: Association of sexual history with practice of pre-marital VCT in males, Addis Ababa,2003.**

Characteristics	Male pre-marital VCT (n=320)		Crude OR(95% CI)	Adjusted OR(95%CI) **
	Yes	No		
Ever had Sex-Yes	161	130	1.00	
No	20	9	1.79 (0.75-4.63)	1.98 (0.79-4.98)
Age at first sex				
14-19 years	36	28	1.00	
20-24	64	61	0.82 (0.42-1.56)	1.24 (0.67-2.29)
25-29	17	15	0.88 (0.35-2.26)	1.05 (0.45-2.48)
30-36	4	2	1.56 (0.20-18.25)	0.60 (0.10-3.55)
No response	40	24	1.30 (0.60-2.79)	0.80 (0.39-1.66)
Sex past one year				
Yes	157	129	1.00	
No	4	1	3.29 (0.32-163.0)	
Condom past one year				
Always	28	19	1.00	
Sometimes	30	22	0.93 (0.38-2.22)	0.82 (0.42-1.58)
Never	99	88	0.76 (0.38-1.53)	0.82 (0.44-1.55)
No sex partners Past 1 year				
One	147	127	1.00	
More than one	6	2	2.59 (0.45-26.62)	4.02 (0.86-18.94)
No Response	4	---	3.46 (0.34-171.5)	---
How long since introduced				
1-12 months	31	17	1.00	
13-24 m	39	24	0.89 (0.38-2.08)	0.57 (0.26-1.23)
25-36 m	25	10	1.37 (0.49-3.98)	0.62 (0.31-1.23)
37 and above	86	88	0.54 (0.26-1.09)	<b>0.37 (0.15-0.88) *</b>
Circumstance introduced				
Accidental	44	28	1.00	
Through relatives	72	53	0.86 (0.46-1.63)	0.87 (0.23-3.38)
Work place	25	38	<b>0.42 (0.20-0.88) *</b>	1.23 (0.34-4.48)
School	24	16	0.95 (0.4-2.28)	2.26 (0.59-8.65)
Church	10	4	1.59 (0.41-7.59)	0.75 (0.19-3.03)
Childhood friend	6	---	3.82 (1.42-181.8)	----
Sexual contact with fiancée				
Yes	150	129	1.00	
No	31	10	<b>2.67 (1.21-6.32) *</b>	<b>9.62(1.23-75.2) *</b>
Condom at first sex,fiancée				
Yes	46	40	1.00	
No	104	89	1.02 (0.59-1.75)	1.27 (0.43-3.77)
Condom use with fiancée				
Always	29	20	1.00	
Sometimes	24	26	0.64 (0.27-1.52)	0.64 (0.19-2.21)
Never	97	83	0.81 (0.40-1.60)	1.07 (0.39-2.89)
Number of marriages				
Only the current one	156	132	1.00	
Other prior marriage	25	7	<b>3.02 (1.22-8.52) *</b>	<b>2.96 (1.22-7.18) *</b>
Life time sex partners				
None	20	9	1.00	
One	34	39	0.39 (0.14-1.06)	1.29 (0.66-2.50)
Two & above	85	59	0.65 (0.24-1.62)	0.89 (0.49-1.58)
No response	42	32	0.59 (0.21-1.59)	----

**\*\*Adjusted for sexual Hx & condom use**

**Table-7: Association of sexual history with practice of pre-marital VCT in females, Addis Ababa,2003.**

Characteristics	Female pre-marital VCT (n=320)			Adjusted OR(95%CI) **
	Yes	No	Crude OR(95 % CI)	
Ever had Sex-Yes	159	130	1.00	
No	16	15	0.87 (0.39-1.97)	1.07 (0.13-8.56)
Age at first sex				
14-19 years	52	37	1.00	
20-24	89	71	0.89 (0.51-1.56)	1.30 (0.11-15.0)
25-29	13	18	0.51 (0.20-1.27)	1.51 (0.13-17.1)
30-36	3	3	0.71 (0.09-5.63)	2.58 (0.21-31.9)
No response	2	1	1.42 (0.07-86.2)	2.03 (0.11-36.4)
Sex past one year				
Yes	158	130	1.00	
No	1	---	0.82 (0.01-65.0)	
Condom past one year				
Always	27	20	1.00	
Sometimes	23	27	0.63 (0.26-1.52)	0.92 (0.48-1.77)
Never	108	83	0.96 (0.48-1.92)	1.51 (0.8-2.84)
No sex partners Past 1 year				
One	152	124	1.00	
More than one	5	5	0.82 (0.18-3.63)	0.7 (0.04-11.5)
No Response	1	1	0.82 (0.01-64.55)	---
How long since introduced				
1-12 months	26	19	1.00	
13-24 m	41	22	1.36 (0.57-3.21)	0.57 (0.27-1.23)
25-36 m	26	12	1.58 (0.59-4.35)	<b>0.43 (0.22-0.87) *</b>
37 and above	82	92	0.65 (0.32-1.33)	<b>0.34 (0.15-0.79) *</b>
Circumstance introduced				
Other accidental	43	30	1.00	
Through relatives	71	53	0.93 (0.5-1.75)	0.5 (0.15-1.71)
Work place	28	36	0.54 (0.26-1.13)	0.59 (0.18-1.91)
School	21	19	0.77 (0.33-1.81)	0.98 (0.29-3.37)
Church	7	7	0.70 (0.19-2.61)	0.47 (0.13-1.68)
Childhood friend	5	---	3.49 (0.36-170.4)	---
Sexual contact with fiancée				
Yes	154	129	1.00	
No	21	16	1.10 (0.52-2.35)	4.45 (0.51-38.9)
Condom at first sex fiancée				
Yes	49	37	1.00	
No	105	92	0.86 (0.50-1.48)	2.12 (0.65-6.92)
Condom use with fiancée				
Always	31	19	1.00	
Sometimes	21	27	0.48 (0.2-1.15)	1.76 (0.75-4.12)
Never	102	83	0.75 (0.37-1.49)	0.64 (0.17-2.39)
Number of marriages				
Only the current one	169	140	1.00	
Other prior marriage	6	5	0.99 (0.25-4.21)	0.71(0.2-2.46)
Life time sex partners				
None	16	15	1.00	
One	84	86	0.92 (0.39-2.12)	1.03 (0.14-7.51)
Two & above	73	42	1.63 (0.67-3.91)	0.56 (0.08-4.12)
No response	2	2	0.94 (0.06-14.5)	---

\* Statistically significant \*\* Adjusted for sexual history & condom use

Even though knowledge on HIV transmission and prevention in both sexes showed a positive association with pre-marital VCT, it was not statistically significant. No statistically significant association was found in relation to knowledge about STD, self-perceived susceptibility, knowledge on VCT and awareness on healthy carriers (Tables-8&9).

Those respondents who did not have discussion about both HIV and VCT were found to be less likely to have pre-marital HIV testing and the association was statistically significant in bivariate analysis as well as after controlling for possible confounders (Tables-8&9).

A hypothetical question of what would happen if your HIV testing turns out positive was asked and female respondents who would not want to reveal their result to their spouse and those who think the sexual relationship with their spouse would get weaker were more likely to use pre-marital VCT and the association was statistically significant (Tables-8&9).

**Table-8: Association of knowledge of HIV / VCT and risk perception with practice of pre-marital VCT in males, Addis Ababa, 2003.**

Characteristics	Male pre-marital VCT (n=320)		Crude OR(95% CI)	Adjusted OR(95%CI) **
	Yes	No		
Knowledge of HIV transmission				
Adequate	115	83	1.18 (0.73-1.9)	1.26 (0.78-2.05)
In-adequate	66	56	1.00	
Knowledge of HIV prevention				
Adequate	98	64	1.38 (0.87-2.21)	1.23 (0.77-1.97)
In-adequate	83	75	1.00	
Perceived risk of HIV →				
Yes	3	--	1.00	
No	178	139	0.43 (0.01-5.39)	
Knowledge on Healthy HIV carrier →				
Yes	138	95	1.00	
No	43	44	0.67 (0.4-1.14)	0.61 (0.37-1.01)
Knowledge on STDs				
Yes	173	132	1.00	
No	8	7	0.87 (0.27-2.9)	0.9 (0.32-2.57)
Knowledge on VCT				
Yes	181	136	1.00	
No	---	3	0.25 (0-3.17)	
Discussed about HIV to fiancée				
Yes	177	111	1.00	
No	4	28	<b>0.09 (0.02-0.27) *</b>	<b>0.09 (0.03-0.27) *</b>
Discussed about VCT to fiancée				
Yes	176	106	1.00	
No	5	33	<b>0.09 (0.03-0.25) *</b>	<b>0.09 (0.4-0.25) *</b>
Disclosure of HIV +ve result to →				
Spouse- Yes	171	136	1.00	
No	10	3	2.65 (0.66-15.2)	2.48 (0.66-9.32)
Events to happen if HIV +ve				
Divorce—Yes	43	25	1.00	
No	138	114	0.70 (0.39-1.26)	0.69 (0.38-1.27)
Strengthen sex relationship				
Yes	39	40	1.00	
No	142	99	1.47 (0.85-2.53)	1.28 (0.74-2.2)

\* Statistically significant

\*\* Adjusted for knowledge variables and discussion

**Table-9: Association of knowledge of HIV / VCT and risk perception with practice of pre-marital VCT in females, Addis Ababa, 2003.**

Characteristics	Female pre-marital VCT (n=320)		Crude OR(95% CI)	Adjusted OR(95%CI) **
	Yes	No		
Knowledge of HIV transmission				
Adequate	169	137	1.64 (0.49-5.9)	1.57 (0.51-4.8)
In-adequate	6	8	1.00	
Knowledge of HIV prevention				
Adequate	139	109	1.28 (0.73-2.23)	1.29 (0.74-2.22)
In-adequate	36	36	1.00	
Perceived risk of HIV →				
Yes	1	3	1.00	
No	174	142	3.68 (0.29-194.1)	4.21 (0.43-41.04)
Knowledge on Healthy HIV carrier →				
Yes	158	125	1.00	
No	17	20	0.67 (0.32-1.42)	0.68 (0.33-1.38)
Knowledge on STDs				
Yes	152	114	1.00	
No	23	31	0.56 (0.29-1.05)	0.58 (0.3-1.13)
Knowledge on VCT				
Yes	143	125	1.00	
No	32	20	1.4 (0.73-2.72)	1.29 (0.68-2.45)
Discussed about HIV to fiancée				
Yes	170	118	1.00	
No	5	27	<b>0.13 (0.04-0.35) *</b>	<b>0.13 (0.05-0.35) *</b>
Discussed about VCT to fiancée				
Yes	170	112	1.00	
No	5	33	<b>0.10 (0.03-0.27) *</b>	<b>0.10 (0.04-0.27) *</b>
Disclosure of HIV +ve result to → Spouse				
Yes	147	139	1.00	
No	28	6	<b>4.41 (1.72-13.4) *</b>	<b>4.34 (1.67-11.25) *</b>
Events to happen if HIV +ve				
Divorce—Yes	53	39	1.00	
No	122	106	0.85 (0.5-1.42)	0.84 (0.5-1.41)
Strengthen sex relationship				
Yes	4	12	1.00	
No	171	133	<b>3.86 (1.13-16.7) *</b>	<b>3.77 (1.16-12.21) *</b>

\* Statistically significant

\*\* Adjusted for knowledge variables and discussion

### **Determinants of demand for pre-marital VCT**

A total of 284 subjects (139 males and 145 females) who did not have pre-marital VCT were assessed in terms of whether or not they had the desire to be tested though not practiced. Among the socio-demographic variables, age 35 and above was negatively and significantly associated with demand for pre-marital VCT [OR=0.19(0.06-0.62)]. No statistically significant association was observed in the other socio demographic variables (Table-10).

Neither previous sexual history nor introduction time/circumstance were seen to have a significant association with demand for pre-marital VCT. Knowledge of HIV, VCT, STD and an HIV testing center did not show a significant association (Tables-11&12). Respondents who lack the knowledge about healthy carrier were more likely to practice pre-marital VCT than the knowledgeable, the association being significant [OR=3.48(1.71-7.1)] (Table-12). Those study subjects who did not have discussion concerning HIV as well as VCT had less demand for pre-marital VCT as compared to the ones who had discussed and the association was statistically significant in both bivariate and logistic regression analysis (Table-12).

### **Agreement level between paired couples**

Agreement level between pairs was assessed for pre-marital VCT utilization and demand as well as the attitude of the pairs about future HIV testing using Kappa statistical analysis. The approximate degree of agreement (Kappa) of utilization and demand for pre-marital VCT with in pairs were 0.75 and 0.95 respectively, while an agreement level of 0.002 was observed in terms of the non-HIV tested pairs' attitude towards the benefit of future testing and their plan to have VCT in the future.

**Table-10: Association of socio-demographic factors with demand for pre-marital HIV testing among those who did not have HIV testing, Addis Ababa, 2003.**

Characteristics	Demand for pre-marital VCT(n=284)		Crude OR (95% CI)	Adjusted OR ** (95% CI)
	Yes	No		
Sex-Male	88	51	1.00	
Female	92	53	1.01 (0.6-1.68)	0.83 (0.42-1.65)
Age in years				
15-24	36	11	1.00	
25-29	69	38	0.55 (0.23-1.28)	0.61 (0.23-1.61)
30-34	43	29	0.45 (0.18-1.1)	0.52 (0.20-1.32)
35 & above	32	26	<b>0.38 (0.14-0.95) *</b>	<b>0.19 (0.06-0.62) *</b>
Ethnicity				
Amhara	112	63	1.00	
Oromo	34	18	1.06 (0.53-2.17)	0.57 (0.11-2.85)
Tigre	16	3	3.00 (0.81-16.6)	0.51 (0.09-2.73)
Gurage	15	16	0.53 (0.23-1.23)	0.17 (0.02-1.24)
Others	3	4	0.42 (0.06-2.59)	1.04 (0.18-5.96)
Religion				
Orthodox	157	87	1.00	
Protestant	14	9	0.86 (0.33-2.36)	0.54 (0.14-2.16)
Catholic	4	2	1.11 (0.16-12.48)	0.75 (0.15-3.78)
Muslim	5	6	0.46 (0.11-1.88)	0.63 (0.07-5.88)
Education				
Grade 0-8	11	7	1.00	
Grade 9-12	102	54	1.20 (0.37-3.62)	0.40 (0.09-1.64)
Diploma	53	29	1.16 (0.34-3.71)	0.42 (0.15-1.16)
BA/BSc /above	14	14	0.64 (0.16-2.47)	0.55 (0.21-1.41)
Occupation				
Jobless	44	23	1.00	
Civil servant	48	27	0.93 (0.44-1.96)	0.96 (0.35-2.65)
Private empl.	51	25	1.07 (0.50-2.26)	2.49 (0.49-12.67)
Private owner	28	27	0.54 (0.24-1.20)	2.15 (0.43-10.9)
Others	9	2	2.35 (0.43-23.9)	
Monthly income				
50-300 birr	13	12	1.00	
301-600	36	16	2.08 (0.69-6.18)	2.56 (0.67-9.87)
601-1000	32	11	2.69 (0.83-8.63)	1.16 (0.39-3.42)
1001-1500	15	11	1.26 (0.36-4.37)	0.79 (0.25-2.51)
1501 & above	13	10	1.20 (0.33-4.35)	1.65 (0.48-5.69)
No income	43	23	1.73 (0.61-4.85)	1.29 (0.39-4.17)
No response	28	21	1.23 (0.42-3.61)	3.45 (0.46-25.9)

\* Statistically significant

\*\* Adjusted for socio-demographic variables

**Table-11: Association of sexual history with demand for pre-marital HIV testing among those who did not have HIV testing, Addis Ababa, 2003.**

Characteristics	Demand for pre-marital VCT(n=284)		Crude OR (95 % CI)	Adjusted OR ** (95% CI)
	Yes	No		
Ever had sex → Yes	164	96	1.00	
No	16	8	1.17 (0.45-3.28)	1.55 (0.49-4.86)
Age at first sex				
14-19 years	45	20	1.00	
20-24	84	48	0.78 (0.39-1.53)	0.5 (0.18-1.39)
25 & above	22	16	0.61 (0.25-1.53)	0.63 (0.25-1.58)
No response	13	12	0.48 (0.17-1.39)	0.98 (0.33-2.93)
Sex in past one year				
Yes	164	95		
No	---	1		
Condom use past yr				
Always	26	13	1.00	
Sometimes	34	15	1.13 (0.42-3.06)	0.79 (0.37-1.69)
Never	104	67	0.78 (0.34-1.7)	0.64 (0.32-1.29)
No partners past year				
One	156	95	1.00	
Two & more	8	---	4.87 (0.63-218)	
How long since introduced				
1-12 months	24	12	1.00	
13-24 m	28	18	0.78 (0.28-2.12)	0.78 (0.34-1.8)
25-36 m	18	4	2.25 (0.55-11.0)	1.02 (0.48-2.14)
37-60 m	48	32	0.75 (0.3-1.83)	0.41 (0.13-1.31)
above 60 m	62	38	0.82 (0.33-1.94)	1.07 (0.58-1.98)
Circumstance introduced				
Other accidental	34	24	1.00	
Through relatives	65	41	1.12 (0.55-2.26)	2.49 (0.47-13.1)
Work place	49	25	1.38 (0.64-2.99)	2.25 (0.44-11.5)
School	23	12	1.35 (0.52-3.59)	1.91 (0.37-9.89)
Church	9	2	3.18 (0.57-32.3)	1.78 (0.31-10.2)
Sexual contact fiancé				
Yes	164	94	1.00	
No	16	10	0.92 (0.37-2.36)	0.66 (0.26-1.69)
Condom use fiancée				
Always	28	11	1.00	
Sometimes	36	17	0.83 (0.3-2.24)	1.31 (0.34-5.04)
Never	100	66	0.60 (0.25-1.34)	1.32 (0.45-3.85)
Number of marriages				
Only the current one	174	98	1.00	
Other prior marriage	6	6	0.56 (0.15-2.17)	0.6 (0.18-1.98)
Life time sex partners				
None	16	8	1.00	
One	80	45	0.89 (0.3-2.41)	0.72 (0.31-1.69)
Two & above	65	36	0.90 (0.3-2.5)	0.69 (0.31-1.58)
No response	19	15	0.63 (0.18-2.12)	

\*Statistically significant

\*\*Adjusted for sexual history

**Table-12: Association of knowledge of HIV /VCT and risk perception with demand for pre-marital HIV testing among those who did not have HIV testing, Addis Ababa, 2003.**

Characteristics	Demand for pre-marital VCT(n=284)		Crude OR (95% CI)	Adjusted OR ** 95% CI	
Knowledge of HIV transmission→	Yes	139	81	0.96 (0.51-1.78)	0.93 (0.48-1.81)
	No	41	23	1.00	
Knowledge of HIV prevention→	Yes	105	68	0.74 (0.43-1.26)	0.67 (0.39-1.15)
	No	75	36	1.00	
Perceived risk of HIV	Yes	2	1	1.00	0.77 (0.07-9.04)
	No	178	103	0.86 (0.01-16.8)	
Knowledge on healthy HIV carrier→	Yes	128	92	1.00	<b>3.48 (1.71-7.1) *</b>
	No	52	12	<b>3.11 (1.53-6.76) *</b>	
Knowledge on STDs	Yes	157	89	1.00	0.82 (0.4-1.66)
	No	23	15	0.87 (0.41-1.89)	
Knowledge on VCT	Yes	167	94	1.00	0.81 (0.33-1.99)
	No	13	10	0.73 (0.28-1.94)	
Knowledge of VCT center→	Yes	146	75	1.00	0.62 (0.34-1.1)
	No	34	29	0.60 (0.33-1.11)	
Discussed about HIV to fiancée→	Yes	153	76	1.00	<b>0.46(0.25-0.85) *</b>
	No	27	28	<b>0.48 (0.25-0.91) *</b>	
Discussed about VCT to fiancée→	Yes	150	68	1.00	<b>0.35(0.19-0.63) *</b>
	No	30	36	<b>0.38 (0.21-0.69) *</b>	
Disclosure of HIV +ve result to→Spouse	Yes	177	98	1.00	0.3 (0.07-1.26)
	No	3	6	0.28 (0.04-1.34)	
Events to happen if HIV +ve	Divorce-Yes	44	20	1.00	0.7 (0.37-1.32)
	No	136	84	0.74 (0.38-1.38)	
Strengthen sex relation	Yes	32	20	1.00	1.14 (0.58-2.25)
	No	148	84	1.10 (0.56-2.13)	

\*Statistically significant

\*\*Adjusted for knowledge and practice variables

## **6-DISCUSSIONS**

HIV voluntary counseling and testing has long been a component of HIV prevention and care efforts in developed countries, but only recently is it being implemented in resource-constrained countries.

The median age at first sex is higher than the national DHS report in 2000, which may be due to the urban nature of this study in that sexual initiation in urban is at a later age than the rural counterparts that were included in DHS.

The study showed that 56.6% of males and 54.7% of females had pre-marital HIV testing and among all who had not had pre-marital HIV testing (284), 63.4% of them wished to be tested but had not been, for various reasons (unmet need). From a study done in Harar in 15-49 years age group, 73.6% of study subjects reported having the intention of asking their partner to have VCT. The overall 55.6% rate of pre-marital VCT in this study is less than the reported intention in the Harar study. But studies have shown that the intention and actual practice of HIV testing are not the same with the latter being less, as was seen in the Zambian community based study (50). The finding that 55.6% of newly marrying couples reported to have HIV testing can go with the wider promotion and availability of VCT centers in Addis Ababa as well as the fact that most of the study subjects are from better socio-economic group in the city. Even then the usage of pre-marital VCT as compared with the disease burden in the city appears un-satisfactory. There are reports that decliners of HIV testing being more likely to be HIV positive than acceptors of testing (9) and we need to cover the majority of couples with VCT for effective prevention of HIV.

Among the socio-demographic factors, Being of Gurage ethnic group in both sexes was shown to have a negative association with pre-marital HIV testing. Some studies revealed socio-demographic factors including ethnicity that influence uptake of HIV testing (33-34) while there are also reports of no association with gender, race and risk behavior group (32). This may be explained by other associated factors rather than the ethnicity.

Previous sexual history like ever had sex, life time partner, sexual contact in the past one year and condom use during sexual contact in one year time did not show any predictive effect on pre-marital HIV testing. There are reports that no association was found between uptake of HIV testing and HIV risk behaviors (33-34).

Despite the fact that many respondents had had sexual contact with most of them not using condoms consistently, it is only the minority (1.1%) who perceived themselves at risk of HIV. The BSS preliminary report (Ethiopia) revealed that own risk perception is very low in almost all target groups despite their finding of a significant proportion of the population being at high risk of HIV infection (4). In a Rwandan study on childbearing women, a perception of risk was reported by 56% of the study group and the author documented that individuals who knew they were at high risk were more receptive to interventions (51). Another study done in an obstetric setting in the US indicated that self-perceived risk correlates with testing behavior (34).

Those couples who had known each other for more than three years were seen to have less uptake of HIV testing before marriage as compared to the one year and below group. This may be explained by the fact that staying together for a longer time period builds confidence on each other and even if there is the desire to raise the issue of VCT, it may disrupt the bond and trust between the couple.

Both males and females who reported to have no sexual contact with their fiancée were shown to have more uptake of pre-marital VCT as compared to those who already had sexual contact. The association is statistically significant in male subjects. Those who have started sexual contact may consider that there is no point having HIV testing once they have the contact whereas those who did not have contact may have wanted to know their status before commencing to sex and marriage. Males who had history of other marriage before the current one are positively associated with having HIV testing that may be explained by the fact that they have previous experience on marriage and sexuality and their decision points to the wiser side. Knowledge factors about HIV, VCT and STD were not significantly associated with premarital VCT. Studies have shown that acquiring adequate knowledge is not a guarantee for behavioral change (51-52).

Male as well as female subjects who reported not having free discussion about HIV and VCT with their partner were seen to have a negative statistically significant association with up take of premarital VCT. There are reports that couples who had discussion about AIDS between themselves practice less risky behavior better than those who did not have free discussion (51).

A hypothetical question as to what would happen if your test result were HIV positive was addressed and female respondents who would not inform their spouse about the result and who think that their sexual relationship would get weaker were seen to have significantly positive association with HIV testing. Those who would inform their husband and think that the sexual relationship would get stronger might be thought to be in favor of HIV testing, but the opposite was the case in this study.

Among those respondents with out HIV testing (284), 63.4% claimed to wish to have testing, but had not had it for some reason. The demand for premarital VCT showed a decreasing trend with increasing age and those people above the age of 35 were seen to have a negative and statistically significant association with demand. There is a report that patients under 25 yrs were 1.5 times more likely to test than over 40 yrs age (34). This can be explained either due to older age and decreased risk perception or knowledge gap concerning HIV/VCT.

Previous sexual behavior, knowledge about HIV/STD and awareness on VCT were seen to have no statistically significant association with demand for premarital VCT. Those study subjects who lack the knowledge that healthy looking persons can have HIV in their blood showed a positive and significant correlation with demand for HIV testing that revealed knowledge status did not predict the behavior, in our case demand for testing.

Like in the users of HIV testing, the demand for HIV testing has significantly negative association among couples who have not discussed about HIV/VCT with each other as

compared to those who discussed. This variable maintained its influence in both independent variables and appears to play an important role in promoting pre-marital VCT.

The most commonly cited reason for not demanding pre-marital VCT in the unmet need group (180) was not perceiving oneself at risk of acquiring HIV (57.8%); other reasons being didn't consider it at all (23.9%), had had the test for other reason (7.2%), afraid of a positive result (5.6%) and fear of stigma (3.9%). The principal reason indicated for test refusal in an STD clinic in South Carolina was not feeling at risk for HIV infection (42%) followed by had been tested in the past (23%), prefer not to know I am infected (21%) and concern on confidentiality (19%) (32). In another community based study in Tanzania, the main reason given by those who refused HIV testing was that they felt unlikely to catch AIDS; others gave reasons like scared of testing positive for AIDS, not allowed by spouse and could not give blood for testing (52).

Regarding source of information for HIV and VCT, most people mentioned health workers, mass media, peer/friends as a source of information both for HIV and VCT. When we see school, parents, neighbors and religious leaders, they were major information sources for HIV but not for VCT. This may show that these sectors lack the awareness of this important intervention strategy to fight HIV/AIDS.

Two third of study subjects preferred HIV testing service to be given integrated in the existing health facility and one third favor self standing center. Nearly half of the respondents prefer confidential testing, a third and the remaining preferring non-confidential and anonymous

testing respectively. The majority of respondents preferred to be counseled by medical doctors and trained counselor, the rest being by HIV infected, religious leader and nurses in decreasing order. Almost all subjects preferred to hear their result face-to-face and most of them suggested VCT service to be given free of charge. All these findings go with the report of the study done on VCT in Harar town (35) except that the proportion of the respondents who preferred non-confidential testing has increased from 1.8% in the Harar study to 30% in this study. The preference of Nurses as counselors was very small, possibly because nurses trained as counselors were covered by the category 'counselors'.

The fact that non-health professionals like HIV infected and religious leaders were selected by some as preferred counselors implies that one can make use of them to reduce the burden on health workers and be convenient for clients. There are successful experiences in Central & South Africa by utilizing traditional healers (53) and in Uganda by involving HIV positive individuals (54). The good agreement level in utilization and demand for pre-marital HIV testing with in pairs is encouraging. The agreement level among the non-HIV tested respondents in relation to their intention to have future HIV testing was almost zero that is not a good indication about the likelihood of future testing behavior.

Increasing evidence suggests that strict confidentiality and anonymous testing encourages people to be tested and the preference by most respondents needs to be practiced for effective service delivery (36).

## **7-STRENGTHS AND LIMITATIONS OF THE STUDY**

### **Strengths**

- Structured questionnaire adapted from standard questionnaire was used (WHO and BSS).
- Questionnaire was pre-tested and the necessary modification was made.
- Interviewers were male for male respondents and female for female respondents.
- The principal investigator was supervising the daily data collection activity.

### **Limitations**

- Convenient sampling was used that may incur selection bias.
- The study could not capture some sections of the society and the other types of marriages.
- Social desirability bias.

## **8-CONCLUSIONS**

- The study revealed that civil marriage is attended mostly by Amhara by ethnicity, Orthodox by religion and by those who have a better income.
- The practice of pre-marital VCT appears not optimal when compared with the accessibility, availability and awareness level of respondents.
- Most couples had pre-marital sexual relationships and it appears that HIV testing before commencing sexual activity is advisable. Even for those who already had sexual contact without HIV testing, it is advisable to have VCT to plan for their future.
- Consistent condom use was not practiced by the majority and it has to be advised.
- Self-perceived risk of HIV is almost nil despite high levels of sexual activity and low condom use. There is a tendency by respondents not to appreciate their own risk behaviors that can exert a negative impact on VCT seeking behavior.
- All respondents have heard about HIV and almost all are aware of VCT. Knowledge was not found to be predictor for VCT utilization.
- Discussion between couples regarding HIV and VCT were found to be strong predictors of both practice of pre-marital HIV testing and demand for pre-marital VCT.
- The main reason given for not having pre-marital HIV testing was not perceiving oneself at risk of the disease.
- Confidential testing, integrated VCT service, medical doctors as counselors and face-to-face way of hearing results were the schemes preferred by most respondents.

## **9-RECOMMENDATIONS**

1. Promotion of discussion between couples about HIV/VCT through intense IEC activities by involving mass media, marriage agencies (Municipality, Churches, Mosques and elders), work place, schools, mass organizations and parents.
2. The public in general and couples in particular need to be addressed so that what is meant by self-perceived risk is made clear and people acknowledge their own risk.
3. Sexual activity before marriage is found to be common and pre- relationship HIV testing is recommended. Even those couples who already had sexual contact are advised to do HIV testing when they decide to marry.
4. Consistent condom use is advised until couples decide to get married and have HIV testing.
5. Integrated VCT service is recommended to address the need of the majority.
6. This study addressed civil marriages and further study needs to be conducted that represents religious and customary marriages.

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(Signature of interviewer certifying that informed Consent has been given verbally by respondent).

Thank you. Let's begin.

Time at the beginning of  interview

**Section -1- Background Characteristics**

<i>No</i>	<i>Questions</i>	<i>Coding Classification</i>	<i>Code</i>
101	Record sex of the respondent	Male _____ 1 Female _____ 2	
102	How old were you at your last birth day ?	Age in completed years _____ Don't know _____ 88 No response _____ 99	
103	What is your religion ?	Orthodox _____ 1 Protestant _____ 2 Catholic _____ 3 Muslim _____ 4 Others _____ (specify) _____	
104	To which ethnic group do you belong?	Amhara _____ 1 Oromo _____ 2 Tigrai _____ 3 Others(specify) _____ No response _____ 99	
105	What is the highest level of education you completed?	Read and write _____ 1 Grade 1-6 _____ 2 Grade 7-12 _____ 3 Above grade 12 _____ 4 No response _____ 99	
106	What is your current occupation?	Jobless _____ 1 Daily Laborer _____ 2 Government employee _____ 3 Merchant _____ 4 Soldier _____ 5 Driver _____ 6	

	House wife _____ 7 Others(Specify) _____	
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107	What is Your total monthly income?	_____ Eth. birr per month No income _____ 1 Don't know _____ 88 No response _____ 99	
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### Section -2 – sexual history and condom use.

<i>No</i>	<i>Questions</i>	<u><b>Coding Classification</b></u>	<i>Code</i>
201	Did you ever have sexual intercourse?	Yes _____ 1 No _____ 2 → 206 No response _____ 99 → 206	
202	If Yes, at what age you had sex first?	_____ Years old Don't remember _____ 1 No response _____ 99	
203	Have you had sexual intercourse in the past one year?	Yes _____ 1 No _____ 2 → 206 No response _____ 99 → 206	
204	If yes, how often you have used condom when you have sexual intercourse in this one year?	Always _____ 1 Some times _____ 2 Never _____ 3	
205	With how many different people have you had intercourse during the past one year?	_____ Number	
206	When was you first introduced with your fiancé? (currently marrying)	_____ Months	
207	What was the circumstance of introduction?	Specify _____	
208	Have you started sexual	Yes _____ 1	

	intercourse in this relationship?	No _____ 2→ 212 No response _____ 99→ 212	
209	If yes to Qn 208, have you had HIV testing before commencing to sexual activity?	Yes _____ 1 No _____ 2 No response _____ 99	
210	If yes to Qn 208, have you used condom on your first sexual contact?	Yes _____ 1 No _____ 2→212 No response _____ 99→212	
211	If yes to Qn 208, how often you have used condom when you have sexual intercourse?	Always _____ 1 Some times _____ 2 Never _____ 3	
212	Did you have any sexual intercourse other than your fiancé after this relationship?	Yes _____ 1 No _____ 2→214 No response _____ 99→214	
213	If yes, how often you have used condom when you have such sexual contact?	Always _____ 1 Some times _____ 2 Never _____ 3	
214	How many times have you been Married?	_____ number of times only this one _____ 1 polygamy _____ 2 other (specify) _____	
215	What is the total number of partners you have had sexual intercourse with during your life time (including the current one)?	_____ number Don't know _____ 88 No response _____ 99	

### Section -3-knowledge and attitude towards STD/HIV

No	Question	Coding Classification	Code
301	Have you heard about HIV?AIDS?	Yes _____ 1 No _____ 2→ 306	
302	From where did you hear about HIV/AIDS? (check all that apply)	Health worke/facility _____ 1 Mass media _____ 2 (Radio, TV, Newspaper ...) Friends _____ 3 Neighbors _____ 4	

		Others (specify) _____	
303	How is HIV/AIDS transmitted? (check all that apply)	Sexual intercourse _____ 1 Mother to child _____ 2 Transfusion of infected blood _____ 3 By sharing sharps _____ 4 (Blade, Needle, etc) Others (specify) _____ Don't know _____ 88	
304	Do you think you can get HIV/AIDS?	Yes _____ 1 No _____ 2 → 306 No response _____ 99 → 306	
305	If yes, specify reasons.	Specify _____	
306	How can people prevent themselves from getting HIV/AIDS?	Avoid _____ Sex/Abstinence _____ 1 Avoid multiple Sexual Partner (one to one) _____ 2 Using _____ condom _____ 3 Avoid _____ sharing _____ sharps _____ 4 Using _____ sterile/disposable needles _____ 5 Others _____ (specify) _____ Don't _____ know _____ 88	
307	Do you know diseases that are transmitted sexually other than HIV/AIDS?	Yes _____ 1 No _____ 2 → 309 No response _____ 99 → 309	
308	If yes, which STD's do you know?	Syphilis _____ 1 Gonorrhea _____ 2 LGV _____ 3 Chancroid _____ 4 Others (specify) _____ Don't know _____ 88	

309	Did you have any STDS in the past one year?	Yes _____ 1 No _____ 2 → 401 No response _____ 99 → 401	
310	If yes, where was the treatment given?	Hospital(Gov.) _____ 1 Health center (Gov.) _____ 2 Private clinic _____ 3 Pharmacies _____ 4 Self order _____ 5 Others (specify) _____ No response _____ 99	

#### Section -4- Voluntary HIV Counseling and Testing

No	Questions	Coding classification	Code
401	Have you heard of voluntary HIV counseling and testing?	Yes _____ 1 No _____ 2 → 403	
402	If yes, where did you get this information?	Health worker/ facility _____ 1 Mass media _____ 2 Friends _____ 3 Neighbors _____ 4 Others (specify) _____ _____	

403	Who can benefit from VCT?	Suspected people _____ 1 Health workers _____ 2 Accidentally exposed _____ 3 Before marriage _____ 4 Pregnant mothers _____ 5 Others (specify) _____ Don't know _____ 88	
404	I don't want to hear the result. Have you ever had VCT in the past?	Yes _____ 1 No _____ 2 → 406 No response _____ 99 → 406	
405	If yes, what was the reason of having VCT?	Ordered by health worker _____ 1 Donation of blood _____ 2 Voluntary testing _____ 3 -specify reason for voluntary _____	

406	Did you have pre-marital VCT for this engagement?	Yes _____ 1 → 409 No _____ 2 No response _____ 99	
407	If no, did you have the desire to have premarital VCT though you didn't have it?	Yes _____ 1 No _____ 2 → 413 No response _____ 99 → 413	
408	If yes to Question 407, what was the reason you didn't have pre-marital VCT?	Don't know where to get _____ 1 Don't believe it will help _____ 2 I trust myself and my partner _____ 3 Afraid to ask my partner _____ 4 Lack of money _____ 5 Don't know about it _____ 6 Had HIV testing before for other purposes _____ 7 Partner refused _____ 8 others (specify) _____	
409	If yes to question 406, where was it done?	Government Hospital _____ 1 Government Health Center _____ 2 Private Clinic _____ 3 Government VCT Center _____ 4 Private VCT Center _____ 5 NGO VCT Center _____ 6 Others (specify) _____ _____ No response _____ 99	
410	How much did you pay for pre-marital VCT?	_____ Ethiopian Birr None _____ 1 Don't know _____ 88	
411	Were you counseled before the test?	Yes _____ 1 No _____ 2 No response _____ 99	
412	Were you counseled after the test?	Yes _____ 1 No _____ 2 No response _____ 99	
413	How many hours did it take to get your result?	specify _____ hours	
414	Do you agree that pre-marital VCT is important?	Yes _____ 1 No _____ 2	

		Don't know _____88 No response _____99	
415	If yes, what are the advantages?	Specify _____	
416	If no to question 406, Do you agree that getting an HIV blood test in the near future would provide safety for this marriage?	Strongly agree _____1 Agree _____2 Disagree _____3 Strongly disagree ___4 Neither _____5	

417	If no to question 406, How likely is that you intend to ask your partner to get an HIV blood test in the near future? (with in two months)	Very likely _____1 Some what likely ____2 Some what unlikely __3 Very unlikely _____4 Neither _____5	
418	Which method of testing you prefer if both types are available?	Confidential, linked testing ____1 Anonymous testing _____2 Others (specify) _____	
419	By whom do you prefer to get VCT?	Physician(Doctor)_____1 Nurse _____2 Trained counselor _____3 Religious leader _____4 No need of counsellor _____5 Other (specify) _____	
420	Would you be willing to pay for VCT service?	Yes _____1 No _____2	
421	If yes, how much could you afford to pay for VCT service?	_____ Eth. Birr	
422	Which way do you prefer to obtain the HIV test result?	Face to face _____1 Telephone _____2 Secretive letter ____3 Relative _____4 Partner _____5 Others(specify) _____ Don't know _____88 No response _____99	

423	If you test positive for HIV, would you tell any of the following individuals about your HIV test result?Read out options(circle all that apply)	<u>(Yes)</u> <u>(1)</u>	<u>(No)</u> <u>(2)</u>	<u>(Not applicable)</u> <u>(3)</u>	<u>(No response)</u> <u>(99)</u>
	Your spouse.....	1	2	3	99
	Your sexual partner/s.....	1	2	3	99
	Your children.....	1	2	3	99
	Your brother/s.....	1	2	3	99
	Your sister/s.....	1	2	3	99
	Your other relative/s.....	1	2	3	99
	Your friend/s.....	1	2	3	99
	Your landlord.....	1	2	3	99
	Your neighbor/s.....	1	2	3	99
	Your religious leader/s.....	1	2	3	99
	Your community leader/s.....	1	2	3	99
	Your employer/s.....	1	2	3	99
	.	1	2	3	99

424	If you test positive for HIV and choose to disclose your serostatus, how likely is it that the following might happen to you? Read out options.(Circle all that apply).	1	2	3	99
	Break up of marriage .....	1	2	3	99
	physical abuse by spouse/ sexual partners	1	2	3	99
	Increased emotional support from employees	1	2	3	99
	.....	1	2	3	99
	Neglected by family .....	1	2	3	99
	Strengthening of relationship with spouse/ sexual partners.....	1	2	3	99
	Increased emotional support from peers	1	2	3	99
	Discrimination by health professionals				
	Increased emotional support from family/relatives.....				
	.....				
	Break up of sexual relationships.....				
	Increased emotional support from health professionals .....				
	Discrimination by employers .....				

**That is the end of our questionnaire. Thank you very much for taking time to answer these questions. We very much appreciate your help.**

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Time at the end of interview





ፈቃደኝነቱን ያረጋገጠው መረጃ ሰበሰቢ ፊርማ -----

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በጥያቄው ለመሳተፍ ፈቃደኛ ከሆኑ ዘንድ ወደ ጥያቄዎቹና መልሳቸው እንገባለን። አመሰግናለሁ።

መጠይቁ

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የተጀመረበት ጊዜ

ሰዓት

ደቂቃ

**ክፍል 1 አጠቃላይ የግለሰቡ መረጃዎች**

ተ.ቁ	መጠይቅ	መልስ	ኮድ
101	የተጠያቂው ያታ	ወንድ-----1 ሴት-----2	
102	በቅርብ ልደትዎን ሲያከብሩ ዕድሜዎ ስንት ነበር?	ዕድሜ በዓመት----- አላውቅም-----88 መልስ የለም-----99	
103	ኃይማኖትዎ ምንድን ነው?	አርቶዶክስ-----1 ኘሮቴስታንት-----2 ካቶሊክ-----3 እስልምና-----4 ሌላ ይገለፅ----- መልስ የለም-----99	
104	ከየትኛው ብሄር/ብሄረሰብ ነዎት?	አማራ-----1 አሮሞ-----2 ትግራ-----3 ሌላ ይገለፅ----- መልስ የለም-----99	
105	ያጠናቀቁት ክፍተኛ የትምህርት ደረጃ ስንት ነው? አንዱን ምረጥ።	አልተማርኩም-----1 ማንበብና መጻፍ ብቻ-----2 ከ1-6ኛ ክፍል-----3 ከ7-12ኛ ክፍል-----4 ከ12ኛ ክፍል በላይ-----5	

		መልስ የለም-----6	
106	መደበኛ ሥራዎ ምንድን ነው?	ሥራ አጥ-----1 የቀን ሰራተኛ -----2 የመንግስት ሰራተኛ-----3 ነጋዴ-----4 ወታደር-----5 ሾፌር-----6 የቤት እመቤት /ለሴት ብቻ-----7 ተማሪ-----8 ፖሊስ-----9 የግል ድርጅት ተቀጣሪ-----10 ሌላ ይገለፅ----- -	
107	የግል የወር ገቢዎ በብር ስንት ይሆናል?	የኢትዮጵያ ብር ----- -- የግል ገቢ የለኝም-----1 አላውቅም-----88 መልስ የለም-----99	

**ክፍል 2 የግብረ ስጋ ግንኙነትና ኮንዶም አጠቃቀምን በተመለከተ**

ተ. ቁ	መጠይቅ	መልስ	ኮድ
201	የግብረ ስጋ ግንኙነት ፈፅመው ያወቃሉ?	አዎ-----1 አላደረሁም-----2 ⇒206 መልስ የለም-----99 ⇒206	
202	ለመጀመሪያ ጊዜ የግብረ ስጋ ግንኙነት ሲያደርጉ እድሜዎ ስንት ነበር?	እድሜ በአመት----- አላስታውስም-----88 መልስ የለም-----99	
203	ባለፈው አንድ አመት ጊዜ ውስጥ የግብረ ስጋ ግንኙነት ፈፅመው	አዎ-----1 አላደረሁም-----2 ⇒206	

	ያውቃሉ?	መልስ የለም-----99 ⇒206	
204	ለጥያቄ 203 መልሱ አዎ ከሆነ ለምን ያህል ጊዜ ኮንዶም ተጠቅመው ነበር? /ከሴቶች የወንድ ጓደኛ ቸውን አጠቃቀም ሙሉ/	ሁልጊዜ-----1 አንዳንዴ-----2 በጭራሽ-----3 አላስታውስም-----88 መልስ የለም-----99	
205	ባለፈው አንድ አመት ጊዜ ውስጥ ከስንት የተለያዩ ሰዎች ጋር የግብረ ስጋ ግንኙነት ፈፅመዋል?	በቁጥር-----	
206	አሁን ከማያገቧቸው እጮኛዎ ለመጀመሪያ ጊዜ የተዋወቁት መቼ ነው?	ከ-----ወር በፊት	
207	ከእጮኛዎ ጋር የተዋወቁበት መንገድ /ሁኔታ/ የቱ ነው?	በአጋጣሚ /ማንኛውም-----1 በቤተሰብ /ዘመድ/ ጓደኛ በኩል---2 በስራ ቦታ-----3 በትምህርት ቤት-----4 በአገናኝ ቢሮዎች-----5 በውርስ-----6 በጠለፋ-----7 ሌላ ይገለፅ----- መልስ የለም-----99	
208	ከእጮኛዎ ጋር የግብረ ስጋ ግንኙነት መፈፀም ጀምረዋልን?	አዎ-----1 አላደረሁም-----2 ⇒212 መልስ የለም-----99 ⇒212	
209	ለጥያቄ 208 መልሱ አዎ ከሆነ ግንኙነት ከመጀመራችሁ	አዎ-----1 አላደረሁም-----2 መልስ የለም-----99	

	አስቀድሞ የኤች.አይ.ቪ. ምርመራ አድርገዋል?		
210	ለጥያቄ 208 መልሱ አዎ ከሆነ ለመጀመሪያ ጊዜ የግብረ ስጋ ግንኙነት ሲፈፀሙ ኮንዶም ተጠቅማችኋል?	አዎ-----1 አልተጠቀምኩም-----2 ⇒212 መልስ የለም-----99 ⇒212	
211	ለጥያቄ 208 መልሱ አዎ ከሆነ የኮንዶም አጠቃቀም ለምን ያህል ጊዜ ነበር? /ሰዓቶች የወንድ ጓደኛ ቸውን አጠቃቀም ሙሉ/	ሁል ጊዜ-----1 አንዳንድ-----2 በጭራሽ-----3 አላስታውስም-----88 መልስ የለም-----99	
212	ከእጮኛዎ ከተዋወቁ በኋላ ከላቸው ውጭ ከሌላ ሰው ጋር የግብረ ስጋ ግንኙነት ፈፀመው ያውቃሉ?	አዎ-----1 አልፈፀምኩም-----2 ⇒214 መልስ የለም-----99 ⇒214	
213	ለጥያቄ 212 መልሱ አዎ ከሆነ የኮንዶም አጠቃቀም ለምን ያህል ጊዜ ነበር? /ሰዓቶች የወንድ ጓደኛ ቸውን አጠቃቀም ሙሉ/	ሁል ጊዜ-----1 አንዳንድ-----2 በጭራሽ-----3 አላስታውስም-----88 መልስ የለም-----99	
214	ለምን ያህል ጊዜ የተለያዩ ጋብቻዎችን ፈፀመዋል?	-----ጊዜያት በቁጥር የአሁኑ ብቻ-----1 ከአንድ በላይ በባህል የተፈቀደ-----2 ሌላ ይገለፅ-----	

215	ለአቅመ አዳም / ሔዋን ከደረሱ ጀምሮ ከስንት የተለያዩ ሰዎች ጋር የግብረ ስጋ ግንኙነት ፈፀመዋል?	በቁጥር----- አላስታወስም-----88 መልስ የለም-----99	
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**ክፍል 3- ስለ አባልዘር በሽታዎች/ኤች .አይ. ቪ. እውቀትና አመለካከት**

ተ.ቁ	መጠይቅ	መልስ	ክድ
301	ኤች አይ ቪ ወይም ኤድስ ስለሚባል በሽታ ስምተው ያውቃሉ?	አዎ -----1 አልሰማሁም-----2 =303	
302	ስለ ኤች .አይ.ቪ / ኤድስ የሰሙት የት ነው? /ከአንድ በላይ መልስ ካለ ይከበብ/	ከጤና ባለሙያ/ መስሪያ ቤት ----- -----1 ከሬዲዮ /ቴሌቪዥን/ጋዜጣ ----- -----2 /ከዜና ማሰራጨ/ጫ/ ከጓደኞች/አቻዎች ----- -----3 ከጎረቤቶች ----- -----4 ከትምህርት ቤት ----- -----5 ከወላጅ/ቤተሰብ ----- -----6 ከተለጣፊ/በራሪ ወረቀቶች ----- -----7 ከኃይማኖት መሪዎች ----- -----8 ሌላ ይገለፅ ----- -----	
303	የኤች.አይ. / ኤድስ መተላለፊያ መንገዶች የትኞቹ ናቸው?	በልቅ የግብረ ስጋ ግንኙነት ----- -----1 ከእርጉዝ እናት ወደ ፅንሱ -----	

	/ከአንድ በላይ መልስ ካለ ይነበብ/	<p>-----2 የተበከለ ደም ለህክምና ሲወሰድ ---</p> <p>-----3 የተበከለ ስለታም እቃዎች በጋራ በመጠቀም /ምላጭ፣ መርፌ.../-----</p> <p>-----4 ጡት በማጥባት ከእናት ወደ ልጅ</p> <p>-----5 በመሳሳም -----</p> <p>-----6 በወባ ትንኻ -----</p> <p>-----7 እጅ በመጨባበጥ -----</p> <p>-----8 የውሀ መጠጫና የምግብ እቃዎች በጋራ በመጠቀም -----</p> <p>-----9 ጥሬ ስጋ በመብላት -----</p> <p>-----10 የዶሮ እንቁላል በመብላት -----</p> <p>-----11 ሌላ ይገለፅ -----</p> <p>----- አላውቅም -----</p> <p>-----88</p>	
304	በኤች.አይ.ቪ ለመያዝ የተጋለጡ ይመስልዎታል?	<p>አዎ ----- 1</p> <p>አይመስለኝም -----2</p> <p>⇒306</p> <p>ምናልባት -----3</p> <p>መልስ የለም -----99</p> <p>⇒306</p>	
305	ለጥያቄ 304 መልሱ አዎ	በልቅ የግብረ ስጋ ግንኙነት -----	

	<p>ወይም ምናልባት ከሆነ በምን ምክንያት የተጋለጡ ይመስልዎታል? /ከአንድ በላይ መልስ ካለ ይከብብ/</p>	<p>-----1 ደም ለህክምና ስለወሰድኩ ----- -----2 በህክምና ቦታ የተጋለጥኩ ስለመሰለኝ ---3 የታመመ ሰው ሳስታምም ስለተጋለጥኩ ---4 በሥራ አገልግሎት /ጤና ባለሙያና ሌሎች/--5 በአስገደዶ መደራረር ምክንያት ----- -----6 ሌላ ይገለፅ ----- -----</p>	
306	<p>ሰዎች ራሳቸውን በኤች.አይ.ቪ /ኤድስ እንዳይያዙ በየትኞች መንገዶች መከላከል ይችላሉ? /ከአንድ በላይ መልስ ካለ ይከብብ/</p>	<p>ከግብረ ስጋ ግንኙነት በመታቀብ --- -----1 አንድ ለአንድ በመወሰን ----- -----2 ኮንዶም በመጠቀም ----- -----3 ስለቶችን በጋራ ባለመጠቀም ----- -----4 ንፅህናው የተጠበቀ መርፌ በመጠቀም ---5 ሌላ ይገለፅ ----- ----- አላውቅም ----- -----88</p>	
307	<p>አንድ ጤነኛ የሚመስል ሰው በኤች.አይ ቪ አምጪ ህዋስ የተያዘ ሊሆን ይችላል?</p>	<p>አዎ ----- 1 አይመስለኝም ----- -2 አላውቅም ----- 88</p>	

		መልስ የለም ----- 99	
308	በግብረ ስጋ ግንኙነት የሚተላለፉ በሽታዎች ያውቃሉ? /ከኤች.አይ .ቪ ሌላ/	አዎ ----- 1 አላውቅም ----- 2 ⇒310 መልስ የለም -----99 ⇒310	
309	ለጥያቄ 308 መልሱ አዎ ከሆነ የትኞቹን በሽታዎች ያውቃሉ?	ቂጥኝ ----- 1 ጨብጥ -----2 ባንቡሌ -----3 ክርክር -----4 ሌላ ይገለፅ ----- አላስታውስም -----88	
310	ባለፈው አንድ አመት ጊዜ ውስጥ በግብረ ስጋ ግንኙነት የሚተላለፉ በሽታዎች ይዘዎት ያውቃል?	አዎ ----- 1 አልያዘኝም ----- 2 ⇒401 መልስ የለም -----99 ⇒401	
311	ለጥያቄ 310 መልሱ አዎ ከሆነ ህክምና የወሰዱት የት ነው?	የመንግስት ሆስፒታል ----- -- 1 የመንግስት ጤና ጣቢያ ----- -- 2 የግል ክሊኒክ ----- --3 ፋርማሲ /መድሀኒት ቤት/ ----- --4 በግል ገዝቼ ----- 5 የባህል ህክምና -----	

		-6 ሌላ ይገለፅ ----- -- መልስ የለም ----- 99	
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**ክፍል -4 በፍላጎት ላይ የተመሰረተ የኤች .አይ.ቪ ምክርና ደም ምርመራን በተመለከተ**

ተ.ቁ	መጠይቅ	መልስ	ክድ
401	ስለ በፍቃደኝነት ላይ የተመሰረተ የኤች.አይ.ቪ ምክርና ደም ምርመራ ስምተው ያውቃለሁ?	አዎ ----- 1 አልሰማሁም -----2 =>403	
402	ለጥያቄ 401 መልሱ አዎ ከሆነ ከየት ስሙ?	ከጤና ባለሙያ/ መስሪያ ቤት ----- 1 ከዜና ማስራጫ ----- 2 ከጓደኞች/አቻዎች ----- 3 ከጎረቤቶች ----- 4 ከትምህርት ቤት ----- 5 ከወላጅ/ቤተሰብ ----- 6 ከተለጣፊ ወይም በራሪ ወረቀቶች ----- 7 ከኃይማኖት መሪዎች ----- -8 ሌላ ይገለፅ ----- --	
403	ከምክርና ምርመራው እነማን ተጠቃሚ ይሆናሉ?	በበሽታው የሚጠረጠሩ ሰዎች ----- -1	

	/ከአንድ በላይ መልስ ካለ ይከበብ/	የጤና ባለሙያዎች ----- 2 በአጋጣሚ ለበሽታው የተጋለጡ ----- 3 ከጋብቻ በፊት -----4 ነፍስ ጡር እናቶች -----5 ሌላ ይገለፅ ----- -- አላውቅም ----- 88	
404	የምክርና ምርመራ አገልግሎት የሚሰጥ ተቋም ያውቃሉን?	አዎ ----- 1 አላውቅም -----2 መልስ የለም -----99	
405	ለጥያቄው 404 መልሱ አዎ ከሆነ ይጥቀሷቸው::	----- --	
406	የምክርና ምርመራ አገልግሎት ለመስጠት አመች ቦታ የት ይመስልዎታል?	በአሉት ጤና ተቋሞች ውስጥ----- 1 እራሱን በቻለ ተቋም ውስጥ ----- 2 ሌላ ይገለፅ ----- - አላውቅም ----- 88	
407	ውጤቱን ማወቅ አልፈልግም:: ግን ከዚህ በፊት የኤች.አይ.ቪ ምርመራ አድርገዋል?	አዎ ----- 1 አላደረኩም -----2 ⇒410 መልስ የለም -----99 ⇒410	
408	ለጥያቄ 407 መልሱ አዎ ከሆነ ምርመራውን የወሰዱበት ምክንያት ምንድን ነው?	በጤና ባለሙያ ትዕዛዝ ----- 1 ደም ለመለገስ -----	

	ከአንድ ጊዜ በላይ ከተመረመሩ የሁሉም ምክንያት ይከበብ ::	2 በፍላጎት የተመሰረተ -----3 ለውጭ ጉዞ /ቪዛ/ -----4 ለሥራ ቅጥር -----5 ሌላ ይገለፅ ----- --	
409	በፍላጎት የተመሰረተ ከሆነ ምክንያቱ ምንድን ነው?	ለጋብቻ -----1 ልጅ ለመውለድ እቅድ -----2 ደም ለመለገስ -----3 የራስን ሁኔታ ለማወቅ ----- 4 ለወደፊት ለማቀድ -----5 ሌላ ይገለፅ ----- -	
410	ውጤቱን ማወቅ አልፈልግም:: ግን ለአሁኑ ጋብቻ አስቀድሜኝሁ የምክርና ደም ምርመራ አድርገዋል?	አዎ -----1 ⇒413 አላደረኩም -----2 መልስ የለም -----99	
411	ለጥያቄው 410 መልሱ አይደለም ከሆነ ምንም እንኳን ምርመራውን ባያደርጉም ለማድረግ ፍላጎት ነበረዎት?	አዎ -----1 አልነበረኝም -----2 ⇒419 መልስ የለም -----99 ⇒419	
412	ለጥያቄ 411 አዎ ከሆነ ምርመራውን ላለማድረግዎ ዋናው ምክንያት ምንድን ነው?	የት እንደሚደረግ ባለማወቅ ----- -----1 ጥቅም ስለሌለው ----- -----2 በራሴና በጓደኛዬ ስለምተማመን ----- -----3 ጓደኛዬ ለመጠየቅ ስለፈራሁ ----- -----4	

		<p>በገንዘብ እጦት -----</p> <p>-----5</p> <p>እውቀቱ ስላልነበረኝ -----</p> <p>-----6</p> <p>በሌላ ምክንያት ምርመራ አድርጌ ስለነበረ-----7</p> <p>በጓደኛዬ እምቢተኝነት -----</p> <p>-----8</p> <p>ምርመራው በቅርብ ስለሌለ -----</p> <p>-----9</p> <p>ያለው የምርመራ አገልግሎት ምቹ ባለመሆኑ -----</p> <p>-----10</p> <p>መገለልን በመፍራት -----</p> <p>-----11</p> <p>ከጤና ባለሙያዎች መጥፎ አመለካከት እንዳይኖር በመፍራት-----</p> <p>-----12</p> <p>ሌላ ይገለፅ -----</p> <p>-----</p>	
413	ለጥያቄው 410 መልሱ አዎ ከሆነ ምርመራው የት ተደረገ?	<p>የመንግስት ሆስፒታል -----</p> <p>-----1</p> <p>የመንግስት ጤና ባቢያ -----</p> <p>-----2</p> <p>የግል ክሊኒክ -----</p> <p>-----3</p> <p>የመንግስት ምክርና ምርመራ ተቋም -</p> <p>-----4</p> <p>የግል ምክርና ምርመራ ተቋም -----</p> <p>-----5</p> <p>የመንግስት ያልሆነ (NGO) ተቋም --</p> <p>-----6</p>	

		ሌላ ይገለፅ ----- ----- መልስ የለም ----- -----99	
414	ለቅድመ ጋብቻ ምክርና ምርመራ ምን ያህል ክፍያ ፈፀሙ?	-----የኢ.ት. ብር ምንም አልከፈልኩም ----- 1 አላውቅም -----88	
415	ከደም ምርመራው በፊት የምክር አገልግሎት ተሰጥቶልን?	አዎ ----- 1 አልተሰጠኝም -----2 መልስ የለም -----99	
416	ውጤቱን ለማወቅ አልፈልግም። ግን የምርመራውን ውጤት አውቀዋል?	አዎ ----- 1 አላውቅሁም -----2 መልስ የለም -----99	
417	ከደም ምርመራው በኋላ ለውጤት ሲሄዱ የምክር አገልግሎት ተሰጥተዋልን?	አዎ -----1 አልተሰጠኝም -----2 መልስ የለም -----99	
418	ደም ከሰጡ በኋላ ውጤቱን ለመውሰድ ስንት ሰዓት ፈጅብዎት?	----- ሰዓት	
419	ቅድመ ጋብቻ ምክርና ምርመራ ጠቃሚ ነው ብለው ያምናሉ?	አዎ -----1 አላምንም -----2 አላውቅም -----88 መልስ የለም -----99	
420	ለጥያቄ 419 መልሱ አዎ ከሆነ የቅድመ ጋብቻ ምክርና ምርመራ ምን ጥቅም አለው? /ከአንድ በላይ መልስ ካለ ይከብብ/	ከጥንዶቹ እርስ በርሳቸው በሽታው እንዳይተላለፍ ----- 1 ልጅ ለመውለድ ለማቀድ ----- 2	

		ለወደፊት ለማቀድ ----- 3 ወጪን ለመቀነስ ----- 4 ሌላ ይገለፅ ----- አላውቅም -----88 መልስ የለም -----99	
421	ለጥያቄ 410 መልሱ አላደረሁም ከሆነ ወደፊት በቅርብ ጊዜ ውስጥ ምርመራውን ማድረግ ለጋብቻቸው ደህንነት ጥሩ ነው ብለው ይሰማሉ?	በጣም እስማማለሁ ----- 1 እስማማለሁ ----- 2 አልስማማም ----- 3 በጣም አልስማማም ----- 4 ምንም አስተያየት የለም ----- 5	
422	ለጥያቄ 410 መልሱ አላደረሁም ከሆነ ወደፊት በቅርብ ጊዜ ውስጥ የእርስዎ የትዳር ጓደኛዎን የኤች.አይ.ቪ ምርመራ እንድታደርጉ የመጠየቅ ሁኔታ ምን ያህል የሚሆን ይመስልዎታል?	በጣም የሚሆን -----1 ምናልባት የሚሆን -----2 ምናልባት የማይሆን -----3 በጣም የማይሆን -----4 አስተያየት የለም -----5	
423	የትኛውን አይነት የምክርና ምርመራ አገልግሎት ይመርጣሉ?	ሚስጢራዊነቱ የተጠበቀ የሥም ምዝገባ -----1 በሚስጢራዊ ቁጥር ምዝገባ /ሥም ሳይመዘገብ/---2 ሌላ ይገለፅ ----- -----	

424	የምክርና ምርመራ አገልግሎቱን የትኛው ባለሙያ ቢሰጥዎ ይመርጣሉ?	ሐኪም /ዶክተር/ ----- 1 ነርስ ----- 2 የሰለጠነ ምክር ሰጪ ----- 3 የሀይማኖት መሪ ----- 4 ምክር ሰጪ አያስፈልግም ----- -5 ሌላ ይገለፅ ----- --	
420	ለምክርና ምርመራ አገልግሎት ክፍያ ለመፈፀም ዝግጁ ነዎት?	አዎ ----- 1 አይደለም ----- 2	
421	ክፍያው ለመፈፀም ዝግጁ ከሆኑ ክፍያው ምን ያህል ቢሆን ጥሩ ይመስሎታል?	----- የኢት.ብር	
422	የኤች.አይ.ቪ ምርመራ ውጤትዎን ለመስማት በየትኛው መንገድ ቢሆን ይመርጣሉ?	ፊት ለፊት ለመስማት -----1 በስልክ -----2 በሚስጥራዊ ደብዳቤ -----3 በዘመድ በኩል -----4 በትዳር ጓደኛ በኩል -----5 ሌላ ይገለፅ ----- -- አላውቅም ----- 88 መልስ የለም -----	

		99			
423	በደምዎ ውስጥ ኤች.አይ.ቪ ቢገኝ ከሚከተሉት ለየትኞች ውጤቱን ይገልጹ?	አ ደ /	አይ /2/ /	አይመለ ከትም /3/	መልስ የለም /99/

ምርጫዎቹ ይነበቡ። ከአንድ በላይ መልስ ካለ ይከበብ				
ሀ/ የትዳር ጓደኛ -----	1	2	3	99
-----	1	2	3	99
ለ/ የፍቅር ጓደኛ -----	1	2	3	99
-----	1	2	3	99
ሐ/ ለልጅ -----	1	2	3	99
-----	1	2	3	99
መ/ ለወንድም -----	1	2	3	99
-----	1	2	3	99
ሠ/ ለእህት -----	1	2	3	99
-----	1	2	3	99
ረ/ ለሌላ ዘመድ -----	1	2	3	99
-----	1	2	3	99
ሰ/ ለጓደኛ -----	1	2	3	99
-----				
ሸ/ ለቤት አከራይ -----				
-----				
ቀ/ ለጎረቤት -----				
-----				
በ/ ለኃይማኖት መሪ -----				
-----				
ተ/ ለአካባቢ /ሰፈር/ ሀላፊዎች-----				
-----				
ቸ/ ለሥራ ቀጣሪ /ለአሰሪ/-----				
-----				
አ/ ለአባት/ እናት -----				
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424	<p>በደምዎ ውስጥ ኤች.አይ.ቪ. ቢገኝ          ከሚከተሉት          የትኛው የሚደርስ ይመስልዎታል          ?</p>	<p>አ አይ          ያ /2/          /          1          /</p>	<p>አይመለ          ከትም          /3/</p>	መልስ የለም	
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አማራጮቹ ይነበቡ ከአንድ በላይ መልስ ካለ ይከበቡ።	1	2	3	99
ሀ/ የትዳር መፍረስ -----	1	2	3	99
-----	1	2	3	99
ለ/ በትዳር ወይም ፍቅር ጓደኛ መደብደብ ----	1	2	3	99
ሐ/ ከአሰሪዎች የበለጠ የሞራል ድጋፍ -----	1	2	3	99
መ/ ከቤተሰብ መገለል -----	1	2	3	99
-----	1	2	3	99
ሠ/ ከትዳር ወይም ፍቅር ጓደኛ ጋር ያለው ግንኙነት መጠንከር ---	1	2	3	99
-----				
ረ/ ከአቻዎች የበለጠ የሞራል ድጋፍ -----	1	2	3	99
-----	1	2	3	99
ሰ/ ለጤና ባለሙያዎች መገለል ---	1	2	3	99
-----	1	2	3	99
ሸ/ ከቤተሰብና ዘመድ የበለጠ የሞራል ድጋፍ--	1	2	3	99
ቀ/ ከፍቅረኞች ጋር የሚደረግ የወሲብ ግንኙነቶች መቋረጥ -----				
-----				
በ/ ከጤና ባለሙያዎች የበለጠ የሞራል ድጋፍ -----				
-----				
ተ/ በአሰሪዎች የሚደርስ መገለል--				
-----				
ቸ/ ከጤና ባለሙያዎች ድጋፍ ማጣት -----				
ኃ/ ለበቀል መነሳት -----				
-----				
ነ/ ተስፋ መቋረጥ -----				
-----				

ይህ የመጠይቁ ማብቂያ ነው። ጊዜዎን መስዋክት አድርገው ጥያቄዎቹን ስለመለሱልኝ አመሰግናለሁ ላደረጉልኝ ትብብር ሳላደንቁት አላልፍም።

መጠይቁ ያለቀበት ሰዓት

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ሰዓት                      ደቂቃ