

**KNOWLEDGE, ATTITUDE, RISK BEHAVIOR ON HIV/AIDS
AND WILLINGNESS TO PARTICIPATE IN AN HIV VACCINE
TRIAL AMONG HIGH SCHOOL TEACHERS IN ADDIS
ABABA CITY, ETHIOPIA.**

BY: FESEHATSION KIDANE, M.D.

APRIL 2002

ADDIS ABABA

**ADDIS ABABA UNIVERSITY
FACULTY OF MEDICINE
DEPARTMENT OF COMMUNITY HEALTH**

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ABSTRACT

There is an ongoing study on sexual behavior in Akaki factory workers and many KAP studies. A cross-sectional study on high risk behavior and knowledge on vaccines and their willingness to participate in HIV vaccine trial among randomly selected high school teachers was conducted from January 10 to 30, 2002 in Addis Ababa city.

Mean age at first marriage for high school teachers was 26.7 years. Of the 621 high school teachers (26.4%) had engaged in commercial sex and 249 (40.1%) had non-regular non-commercial sexual contacts in the last 12 months prior to the survey. Mean age at first sexual intercourse was 18.7 years. Ever use of condoms by the high school teachers was 65.1%. Knowledge on HIV prevention was very low. However, knowledge on vaccines and their willingness to participate in HIV vaccine trial was very high and modestly high, respectively.

Although it is recognized that the specific educational needs will vary in different contexts, our data support the need for incorporate vaccine trial's education into the design and implementation of future HIV vaccine trials. Serial surveillance surveys are necessary to see the trend of change in behavior of the study population. HIV preventive messages should be repeatedly directed to high school teachers. There is a need to increase HIV awareness in high school teachers.

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LIST OF ABBREVIATIONS USED

AIDS	Acquired Immuno Deficiency Syndrome
DHS	Demographic and Health Survey
CSA	Central Statistics Authority
FHI	Family Health International
HIV	Human Immuno Deficiency Virus
MOH	Ministry of Health
NGO	Non Governmental Organization
SSA	Sub-Saharan Africa
STD	Sexually Transmitted Diseases
STI	Sexually Transmitted Infections
UNAIDS	United Nations Program on HIV/AIDS
WHO	World Health Organization
VCT	Voluntary Counseling and Testing
FGD	Focus Group Discussion
WTP	Willingness to Participate in vaccine trial
CSW	Commercial Sex Worker
IDU	Intra-venous Drug User
PYO	Person Years Observed
KABP	Knowledge-Attitude-Behavior-Practice
SD	Standard Deviation
SPSS	Statistical Package for Social Scientists
TV	Television

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INTRODUCTION

The first cases of Acquired Immuno Deficiency Syndrome (AIDS) were recognized and described in 1981 in the United States. The syndrome was first described among homosexual men, with a pattern of unusual infection in otherwise healthy young adult such as pneumocystic carini pneumonia. In 1982 it was recognized in intravenous drug users and report came from recipients of blood or blood products. Since then what was originally thought to be relatively small and geographically contained epidemic has fast assumed pandemic proportions (1).

In 1985 the scope of the epidemic has grown up and at least one case has been reported in each region of the world. Now it is almost 21 years and the disease has spread in every corner of the continent. Up to the end of 2001 almost 25 million people lost their lives and 3.8 million of them were children. Nearly twice that number, 40 million, are now living with HIV, the virus that causes AIDS (2). The most recent UNAIDS/WHO estimates show that, in 2001 alone 5 million people were newly infected with HIV at a rate of more than 15,000 new infections every day. More than 70% of the total people living with HIV/AIDS, 78% of AIDS cases and 68% of the new infections have occurred in Sub-Saharan Africa (2,3,4,5,6,7).

It is clearly seen that HIV/AIDS has been spreading at varying rate in different parts of the world, among various population sub-groups. The picture of infection has been greatly modified in Eastern Europe (6). Even in Sub-Saharan Africa difference in HIV/AIDS spread

has been documented. For instance in many large towns in central, eastern and southern Africa the prevalence rate among pregnant women currently exceeds 30% while in the cities and towns of most of West Africa, prevalence in pregnant women is fewer than 10% (8).

HIV transmission from infected to uninfected person occurs through three main routes, namely, sexual contact (both homosexual and heterosexual), parenteral and perinatal. Various lines of evidence favor the predominance of heterosexual transmission of HIV infection (9,10,11). Moreover, the one-to-one sex ratio of African cases also shows that the likelihood of heterosexual transmission of HIV is higher than that of Western countries, where homosexuals and intravenous drug abusers are among the predominantly afflicted groups of the population.

About 70-80% of the global transmission is attributed to sexual acts. Its risk has been increased with different factors such as the presence of STIs, having more than one sexual partner and practicing unprotected sex with high-risk group such as CSWs. Other modes of transmission are blood transfusion and unsafe injections (5,6,7,8,12,13).

It was in the early 1980s, that the Global Program on AIDS of the World Health organization (WHO) declared HIV as a global pandemic and tried to promote worldwide survey on knowledge, attitude, belief and practices (KABP) on HIV/AIDS (14). Realities confirm that HIV/AIDS is largely a disease of human behavior and it will remain so in the future. Detailed analysis of most reliable data shows a decline in both the incidence and prevalence of the infection in parallel with a change in high-risk behaviors. For example social scientists from

Uganda presented surveys of sexual behavior from 1989 and 1995 (15). It gives an idea of change in current behavior in various age groups in urban setting. These changes include rise in age at first sex and more use of condom in the cities. Those changes have been supported by findings of epidemiologists with both a drop in new infection and rise in distribution and sales of condoms (15,16). Similar findings have been documented in Thailand and urban Tanzania in which the recent decline in new infection was attributed to change in high-risk behavior occurring some years earlier (17,18).

Since individual behavior is responsible for most of the transmission of AIDS, active participation of both infected and uninfected persons in changing their behaviors is required in order to break the chain of transmission. Hence, the focus of prevention nowadays has focused on changing behavior (19). Among the possible determinants of risk behavior are sociodemographic characteristics, the individual's knowledge about AIDS-although not sufficient alone to bring about behavioral change (20,21), attitudes towards AIDS, and the sexual behaviors related to its transmission or prevention and perception of self-risk.

Of greater concern for AIDS prevention in Africa is heterosexual transmission (20,23). Among the protective practices against heterosexual transmission are limiting the number of sexual partners and/or using condoms both consistently and correctly with every act of sexual intercourse. Preventive interventions should optimally be preceded by attempts to obtain sufficient information concerning the sexual behaviors of individuals and sub-groups of the

population, and their knowledge, attitudes and use of preventive practices (27).

In Ethiopia the response to the epidemic has been started at national level by establishing task force and a department of AIDS control in the ministry (3). The MOH and NGOs have done a lot of work to see the pattern of distribution and magnitude of the problem. Trends in behavior change for HIV infection has been tried on the sub-population group of students in high school and college students in Addis Ababa and Gondar (26,27,28,29). However, the available data are not adequate to measure the level of infection in the general population.

Another area of possible impact on high-risk behavior change is HIV counseling and testing (24). Prevention and early detection of infection through counseling and testing is a major part of HIV prevention efforts. Developed countries give early treatment to prolong life and others teach the people to cope up with the result and to engage in less-risky behavior. Studies in Uganda have demonstrated that more than 50% of new cases of HIV infection occur in discordant couples (12,22). An increase in condom use and lower rate of sero-conversion through VCT had also been seen in discordant couples in Africa (25).

In developing countries, where most of HIV infected people reside, the vast majority of them cannot afford antiretroviral drug. With its burden of nearly 85% of new HIV infections and 90% of the world's AIDS-related deaths, Africa seems a fitting place to focus vaccine

development efforts. By bringing trials to Africa, scientists on this continent will not only help determine the product's safety and its ability to elicit an immune response, but they will also ensure that the men and women of Africa are represented in the vaccine development process (12). There is, accordingly, a growing consensus that the development of a safe and effective vaccine against HIV represents the world's most urgent public health priority.

Safety and immunogenicity of vaccines is established in phase I human trials as a necessary prelude to expand study phase II and beyond. Subunit proteins, synthetic peptides, and live, recombinant vaccinia expressing the HIV envelope have been tested so far in uninfected seronegative volunteers (20-25 subjects). Six varieties of envelope sub-units have been tested, in addition to the HIVAC-le vaccinia vector alone or in combination with a boost with insect cell gp160. All vaccines have been safe and well tolerated (30). However, in preparation for HIV vaccine trials, data on cohort's knowledge about vaccine is required (31), and willingness to participate in an HIV vaccine efficacy trial (32) is a prerequisite. There are very limited studies done in Africa on knowledge and willingness to participate in HIV vaccine trials and none in Ethiopia.

The topic of vaccine trial was chosen because: - Vaccines, if developed, would be “largely cost-effective” for HIV/AIDS prevention and control. Vaccine development is an area that will be of interest in the near future. Therefore, there is a need to assess knowledge and

attitude of people about vaccines.

Therefore, the main objective of the present study was to assess knowledge, attitude, risk behavior on HIV/AIDS and their knowledge about and willingness to participate in an HIV vaccine trial among high school teachers in Addis Ababa. Furthermore, the study is expected to provide baseline data against which to monitor changes resulting from any proposed preventive intervention, to enable professionals to design appropriate and feasible interventions against the spread of HIV infection.

LITERATURE REVIEW AND STATEMENT OF THE PROBLEM

Recognized as an emergency disease only in the early 1980's AIDS rapidly established itself throughout the world, and is likely to persist well into the near future. A decade ago HIV/AIDS was regarded primarily as a serious health crisis. Today it is clear that AIDS has become a serious development crisis, with impacts and implications for all sectors. Its social and economic consequences are felt widely not only in health but in education, industry, agriculture, transport, human resources and the economy in general. Since there is no cure for AIDS, this disease threatens the social and economic well being of the country (3). Already 25 million people around the world have died of AIDS; 3.8 million of them are children. Nearly twice that number, 40 million, are now living with the virus that causes AIDS. In 2001 alone 5 million people were newly infected with HIV, more than 70% of the total people living with HIV/AIDS, 78% of AIDS cases and 68% of the new infections have occurred in Sub-Saharan Africa (2,3).

Ethiopia is facing an escalation of reported AIDS cases and it is one of the poorest countries heavily hit by the epidemic. The National HIV/AIDS control program at the MOH estimates that 88% of all infections in Ethiopia result from heterosexual transmission. Documented risk factors for HIV transmission include: sex with multiple partners, STIs, infected blood and blood products and traditional malpractices (38). HIV adult prevalence in Ethiopia is in the range of 6-9% and the number of people living with HIV/AIDS is estimated to be 3 million. The current adult prevalence in urban Ethiopia 13.4% (16.8% in Addis Ababa) is estimated to

be much higher than in rural areas (about 5%) (3).

2.1. PREVENTION AND CONTROL

As there are no known cures for AIDS, the highest worldwide priority has been given to the control of the epidemic. The mechanisms of transmission for HIV call attention to sexual, reproductive, and addictive behaviors, comparatively sensitive and problematic areas for intervention. These are domains often viewed as more appropriate for private decision-making than for imposition of public policies. Also, one must obtain and take into account various perspectives of the epidemic from inside the communities at risk. It is now very clear that HIV infection is spread mainly through identifiable and voluntary behaviors of individuals.

Based on this reality, the GPA (Global Program on AIDS) recommended that education is the key to AIDS prevention, because HIV transmission can be prevented through informed and responsible behavior. Of greater concern for AIDS in Africa, is transmission through the usual heterosexual routes, for which a few preventive practices such as limiting the number of sexual partners and/or using condoms both correctly and consistently in every sexual intercourse, may reduce the risk of HIV transmission (48). For this purpose, the sexual behaviors, knowledge, and attitudes of people in relation to their sociodemographic background and sexual orientation will need to be well understood (49).

Results from several studies exploring AIDS-related knowledge, attitudes and practices among various population groups are currently available. In a study in Ethiopia UNAIDS reported that, the proportion of people citing at least two acceptable ways of protection from HIV infection was 94.1% for males and 83.8% for females respectively (50).

In a study among college students in Addis Ababa (n=1214), results indicated that most of the students (74.4%) considered being faithful to a single lover as the best preventive measure against HIV/AIDS. Similar to the findings of the study on Freshman's attitudes and knowledge of AIDS in Gondar, the number of students who reported using condoms as a method of protection against infection with HIV was very low indicating lack of regional difference in the behavior of college students in their response to HIV/AIDS. This again is similar to the report of surveys on heterosexually active college students from other parts of the world (41).

2.2. PREVALENCE OF HIGH-RISK SEXUAL BEHAVIOR

In Ethiopia various studies have been done to identify factors influencing occurrence of HIV/AIDS. Larson et al in Jimma documented high-risk behavior as early as 1988. More than 40 % of the respondents had sexual intercourse with prostitutes and contracted sexually transmitted diseases in the past (52). Satisfactory knowledge score has also been documented in students at different levels (26,27). In most of the studies misconception on some modes of transmission was common which may cancel high cognitive score (53,54). In a general

population survey (n=6885, 1993), among those who had been sexually active in the previous 12 months, the over all prevalence of non-regular sexual relationships was 10.5% (men, 18.2%; women 5.2%) with wide variations among cities, ranging from 9.7% in Awassa to 17.2% in Addis Ababa (40).

The proportion of students in Gondar reporting sex with a non-regular partner decreased from 47% in 1990 to 9.3% in 1996. In Addis Ababa it decreased from 36.2% in 1990 to 10.3% in 1993 (37).

The prevalence of HIV infection was 11.6% and 12.2% for males and females respectively in a cohort of Ethiopia Fiber Factory workers. The same study also showed high-risk sexual behaviors, mainly for males (64% of males and 6% of females had more than five partners in their lifetime, 16% of males and 2% of females reported having had recent casual partners) (49). In a study among male Wonji factory workers (n=262, 1997) and estate workers (n=484), HIV prevalence was 8.8% and 3.1%, respectively. Sixteen percent of Wonji factory workers and 9% of estate workers were reported to have more than five sexual partners in their lifetime. Sex with CSWs was reported in 14% of estate workers and 47% of Wonji factory workers. Ever had sexual intercourse was reported by 11% of Wonji factory workers and none for estate workers (33).

In a study among high school students, the ages of the respondents at the time of first sex ranged from 12-18 years. Majority (70.5%) had first sex between the ages of 14-16 years.

Sixty percent of the respondents have reported to have had sexual relations with 2-5 partners. Over a third of the boys have had sex with 8 or more partners. The majority of the respondents used no protection (condom) at all (56).

In a recent study by Worku A. et al. (1999) at Gondar college of medical sciences, among 383 students sexual contact with CSWs was reported by 8.1% of the students; highest in health officers, 60.3% and lowest in medical students, 4.3% (57). The numerous AIDS-prevention activities in Uganda, therefore, appear to have made a significant impact on attitudes and behavior trends (39).

A national survey in Tanzania revealed (n=752, 1994) that during the two years of follow-up, the proportion of men who had more than one partner during the month preceding the interview declined from 22.3% to 12.2%. During the first half of the study period, annual HIV incidence was 1.77 per 100 PYO (59).

2.3 CONDOM USE

The results of those few studies conducted in some countries indicate mostly an increase in condom use rate. A case study by UNAIDS in Uganda (1998) reported that between 1989 and 1995, the proportion of sexually active people claiming to use condoms increased significantly. Ever use of condom rose from 15% to 55% for men, and from 6% to 39% for women (42).

In 1985 a large cohort of CSWs were recruited from a lower socioeconomic area of Nairobi for a study of STIs. At the start of the project 61% of these CSWs (10) were infected with HIV. Before the program started 10%, 9% and 7% of groups' 1, 2 and 3 women, respectively, reported occasional use of condoms. By 1986, 80%, 70%, and 58% of groups 1, 2, and 3 women, respectively, reported at least some condom use. Twenty of 28 women who were non-condom users seroconverted compared to 23 of 50 women reported some use of condoms.

In a study among college students in Addis Ababa (n=1214), prevalence of condom use was low among the students, 17.9% of the sexually active respondents reported that they always used condoms, where as the highest proportion 66% reported that they did not use condom at all (41).

The proportion of high-school students reporting condom use in Addis Ababa increased from 6.6% in 1990 to 27.7% in 1993. Thirty four percent of college students in Addis Ababa reported condom use in 1993. In Gondar the proportion increased from 24.0% to 45.9% between 1990 and 1996. A survey done by G/Kidan K. and Bekele A. (1995) on condom use rate among college students in Gondar was found out to be 48% (61). Similar study performed by Petros B. et al. (1997) in Addis Ababa among college students revealed a condom use rate of 17.9% (41).

In a general population survey (n=6685, 1993), condom use in their most recent sexual intercourse with a non-regular partner was reported by 47.9% of men and 47.1% of women (40).

In a recent study by Worku A. et al. (1999) at Gondar College of medical sciences, among 383 students 215(56.1%) were sexually active. Among the sexually active students, 43.2% of the students have ever used condoms. However, consistent condom use was reported only by 6.4% of the respondents. The condom utilization pattern is significantly higher among the health officer students. This could be explained by the fact that health officer students have a longer exposure to clinical practice before joining the college. The usual finding is that rarely does knowledge correlate with practice (57).

In a study among male Wonji factory workers (n=262, in 1997) and estate workers (n=484), 7% of estate workers and 31% of Wonji factory workers reported ever use of condom (33).

In a longitudinal community-based closed cohort study in Uganda, from surveys conducted during 1987 (n=1990), 1992 (n=1204), and 1994(n=984), reported condom use ever increased from 3.9% in 1987 to 10.1 in 1992 and 27.2% in 1994. In females, reported use of condoms increased from 1.2% in 1987 to 18.2% in 1994, while in males it increased from 6.9% to 35.3% over the same period (58).

In India there has been a 60% increase in the incidence of HIV infection between 1993 and 1994 alone. After an intervention in Calcutta in 1993, study results indicated an increase of

regular condom use from 1.1% to 47%, and percentage of people reporting that they often use condoms increased from 3% to 68% (44).

WHO reported (51) that, in Brazil the proportion of young men using condoms the first time they had sex rose from 5% in 1986 to 50% in 1999; in Uganda the proportion of teenage girls who had ever used a condom tripled between 1994 and 1997; in Thailand, fewer young men are visiting sex workers and condom use has increased (51,62). In the same report it is stated that in Zambia, especially in urban areas, sexual activity has decreased, condom use has increased, and the age at which sexual activity starts has risen. As a result, the proportion of pregnant women under 20 who were HIV-positive had fallen from 27% in 1993 to 17% by 1998 (51,63).

2.4. KNOWLEDGE ABOUT AIDS AND STIs

Almost all of the studies done in many areas of the world and particularly in African countries revealed that still some gaps in knowledge about AIDS exist. These gaps mostly concern the modes by which HIV infection can or cannot be transmitted.

According to the reports of Demographic and Health Survey of 2000 in Ethiopia, 85% of women and 96% of men have heard about HIV/AIDS. More than 75% of women and 90% of men believe, there is a way to avoid getting AIDS. In the report, 37% of women and 55% of men believe that healthy-looking persons can have the AIDS virus and 52% of women and

72% of men recognized maternal to child transmission. Knowledge on maternal to child transmission showed that 25% of women and 33% of men were aware of vertical transmission during pregnancy. It was only 2% of the participants of the survey who have been tested for HIV before. In the survey 37% of women and 19% of men have no knowledge of STI. More than 50% of men and 22% of women mentioned at least two symptoms of STI (66).

In a study among college students in Addis Ababa (n=1214), results indicated that their level of knowledge is relatively high. The majority of students did not believe in the various misconceptions as risk factors for AIDS transmission. Various media were thought to be source of information: most of the students (68.8%) heard about HIV/AIDS over the radio, TV (56.2%), newspapers and magazines (45%), were also reported to be the common sources of information about the disease (43). Among Gondar Freshman college students more than half of them had had sex with CSWs and more than 23% of the general student population also had similar experience (41).

In a study among high school students, the sources of information were radio (33.6%), newspapers (22.4%), medical institution or personnel (18.9%), and TV (16.4%). In general, the result showed the respondents' knowledge to be somewhat modest (about 50%). A substantial proportion of the respondents have a common misconception that HIV is transmitted by a mosquito bite (79.3%) and by wearing clothes of HIV infected person (37.1%) and 44% of them believed that AIDS can be cured if diagnosed early. Majority of

them (93.1%) know that a person can catch AIDS by having sex with someone who has the virus, that the chances of becoming infected with HIV virus are reduced by having sex with only one faithful partner (86.2%) and that the risk is increased by having many sexual partners (87.9%)(56).

In a general population survey (n=6885, 1993), 98% of men but 92% of women had heard about AIDS (40).A study in high school students in South Africa, the overall knowledge was reported to be adequate. However, there was considerable inaccuracy regarding AIDS transmission myths or how it can't be transmitted. For example, 45% of Whites and 38% of the Black students reported that one could get HIV from donating blood and more than 30% Asians and 22% Black students felt that HIV infection could be spread by being bitten by mosquitoes. But on HIV transmission their knowledge was better. More than 90% reported that sexual intercourse without using condom was the main route of transmission for HIV infection (64).

A national survey in Tanzania revealed (1994, n=752) that, 99% of urban men had heard about AIDS, 90% knew of ways to avoid AIDS, 89% knew that a healthy-looking person can have AIDS, and 63% knew a person with AIDS (59).

In a study among high school teachers and students (teachers=46, students=416) results showed, high score of AIDS-related knowledge regarding transmission (2.9 out of 3) and

general knowledge (5 out of 7), among the sample. The frequency of misconceptions about AIDS is very high and females tend to exhibit a higher frequency of misconceptions. Students of both sexes, enrolled in science track, have shown a high frequency AIDS-related misconceptions, hence, the need for the inclusion of health education on AIDS issues in the curricula of schools (34).

A pilot-project in Ethiopia among high school students of Addis Ababa and Debre-Berhan (67) revealed, a substantially greater gain in AIDS knowledge for students in pilot-project as compared with students from the control group. Almost all students answered “yes” to the question on whether they supported sexual intercourse with a single partner (96% study group, 93% controls); knowledge of condoms rose from 35% to 92% in the pilot-project students and from 39% to 59% in the control students; knowledge of the condom’s ability to protect against AIDS rose from 24% to 78% among pilot-project students but only from 31% to 45% among controls. In a general population survey (n=6885, 1993), 98% of men but 92% of women had heard about AIDS (40).

In a study in Ethiopia UNAIDS (1998) reported that, the proportion of people citing two acceptable ways of protection from HIV was 94.1% for males and 83.8% for females.

Using a self-administered questionnaire (n=250), Prince and others investigated level of knowledge in Ohio adolescents. Although between half and three-fourths of these high school junior and senior students knew about certain characteristics of AIDS (immune suppressive

syndrome, new disease, no cure), they were not able to correctly identify all risk groups, nor did they understand transmission. Overall, students who performed best nonetheless answered only 47% of the questions correctly. Sources of information used by the students demonstrated that those using magazines were the best informed, with TV and newspapers ranking second and third, respectively. Perceived vulnerability was assessed by asking students if they were worried about getting AIDS; only 27% indicated that this was the case (43).

In San Francisco, Diclemente and others evaluated knowledge, belief regarding personal vulnerability, and perceived need for AIDS instruction in high schools. While 92.4% recognized “having sex with someone” and 81.1% identified “sharing a needle with a drug user” as modes of transmission, almost one-fourth believed that shaking hands with someone could give you AIDS. Only 60% of the students knew that using a condom during sex could help prevent AIDS. These students appear to be concerned about AIDS; 78.7% reported that they were afraid of getting AIDS. Conversely, when students were asked if they felt they were less likely than most people to get AIDS, 50% of the students agreed (43).

Strunin and Hingson’s survey (43) in Massachusetts indicated that 96% of adolescents had heard of AIDS. Twenty-three percent believed that someone with AIDS should not be allowed to attend school because of the potential for transmission. With regard to perception of risk, 54% of the respondents were not at all worried that they might contract AIDS, and 61% did not think it at all likely that they would get AIDS in their lifetime. In Scotland, FGD

research methods were used to assess knowledge and attitudes toward AIDS as part of the development of a public information leaflet (44). Participants correctly saw AIDS as STI that could also be transmitted through blood contact. Respondents were also able to correctly identify homosexual men and intravenous drug users as groups at higher-risk (43).

In the Haitian study, subjects strongly favored mandatory HIV testing, and the majority had positive attitudes and beliefs towards the promotion of condoms. More than one half said that they were afraid they might get AIDS (60).

2.5. ATTITUDES TOWARDS AIDS

In a pilot project in Ethiopia (1994) among high school students in Addis Ababa and Debre-Berhan (67), it was reported that the percentage of students who expressed readiness to play with students who were HIV-positive rose from about 29% to 40% in the control and experimental groups, respectively. At post-test, members of the experimental group were favorably changed in terms of their readiness to care for an HIV-infected friend (35% versus 15% in the control group), to disagree that people with AIDS were “bad people” (27% compared with 16% in the control group), and to accept people with AIDS as their teachers (26% compared with 12%).

The project also had a considerable effect on student attitudes to sexual behavior and it was reported that pilot-project students at post-test were more likely to support abstinence (24%

more pilot-project students, compared with 10% fewer controls); resist pressure for sex (20% more pilot-project students, compared with 2% fewer controls); agree that having sex with only one reliable partner reduces the chances of contracting AIDS (12% more pilot-project students, compared with 2% fewer controls).

There is a growing consensus on the need to assess the trend of changes in sexual behavior among population subgroups to better understand the progression of HIV/AIDS epidemic. Serial data on the population of students who use condoms are available for Addis Ababa and Gondar only. As described by Kebede D. et al. in Ethiopia, the available data are not adequate to the level of infection in the general population especially in the rural part of Ethiopia. The major recommendations forwarded were to conduct a serial behavioral survey, which identifies high-risk behavior with its determinant factors in wide groups of population by standard methods (37).

A pilot-project in Ethiopia among high school students of Addis Ababa and Debre-Berhan (67), revealed a substantially greater gain in AIDS knowledge for students in pilot-project as compared with students from the control group. Almost all students answered “yes” to the question on whether they supported sexual intercourse with a single partner (96% study group, 93% controls); knowledge of condoms rose from 35% to 92% in the pilot-project students and from 39% to 59% in the control students; knowledge of the condom’s ability to protect against AIDS rose from 24% to 78% among pilot-project students but only from 31% to 45% among controls.

2.6. KNOWLEDGE ON VACCINES AND WILLINGNESS TO PARTICIPATE IN HIV VACCINE TRIAL

Behavior change in the field of human sexuality is possible, but may require intense intervention that may be practical or affordable in all risk settings (68).

The HIV/AIDS pandemic is characterized by unique biological, social and geographical factors that, among other things, affect the balance of risks and benefits for individuals and communities who participate in HIV development activities (30).

The most effective treatment for slowing HIV-related disease progression, antiretroviral medication, is complicated to administer, requires close medical monitoring, and is extremely costly, and can cause significant adverse effects. Because of this, antiretroviral medication is not readily available to the vast majority of people affected by HIV/AIDS. These are people living in developing countries and in marginalized communities in developed countries. There is, therefore, an ethical imperative to seek as urgently as possible, a globally effective and accessible vaccine to complement other prevention strategies (69).

There is, accordingly, a growing consensus that the development of a safe and effective vaccine against HIV represents the world's most urgent public health priority. Unfortunately, it has taken much longer to develop such a vaccine than most scientists anticipated back in 1983-84, when research on HIV began in earnest. HIV is one of the most genetically variant

and rapidly evolving viruses researchers have ever encountered. This phenomenon and the possible existence of genetic, environmental, or nutritional cofactors for infection that may vary from country to country require that phase III trials be conducted both in industrialized and developing nations. Therefore, there is no question whether phase III trials should take place in developing countries; rather, one has to identify the ethical behavioral, and social issues that surround vaccine testing in developing countries and attempt to outline procedures to maximize the trial's quality, acceptability to the host nation and ethical conduct (70). The virus exists in two types: HIV-1 and HIV-2, the more virulent, exists in as many as ten subtypes. The genetic make-up of HIV-1's sub-types differs a great deal- inter-subtype variation is 20 to 30% - while genetic differences within a subtype can differ up to 15%.

As if these variations did not pose enough of a challenge to scientists' understanding, HIV differs from person to person by roughly 5% variation of the viral genetic code. This means that by the time the virus has replicated sufficiently to be clinically detectable in a person's blood, it has created so many different versions of itself that the person's immune system is facing more than one million slightly different viruses. This degree of genetic diversity has done little to nurture hope among researchers for a one-vaccine-fits-all solution to controlling HIV. However, researchers investigating the virus's genetic code do know that many areas of the code are conserved or shared across subtypes (12). There are candidate vaccines designed and moving to a testing phase. However, as with any vaccine, their effectiveness in the laboratory is only the first step; they must also be effective when used in humans (12).

Safety and immunogenicity of vaccines is established in phase I human trials as a necessary prelude to expand study phase II and beyond. Subunit proteins, synthetic peptides, and live, recombinant vaccinia expressing the HIV envelope have been tested so far in uninfected seronegative volunteers (20-25 subjects). Six varieties of envelope sub-units have been tested, in addition to the HIVAC-1e vaccinia vector alone or in combination with a boost with insect cell gp160. All vaccines have been safe and well tolerated (30). However, in preparation for HIV vaccine trials, data on population sub-groups' knowledge about vaccine is required (31), and their willingness to participate in an HIV vaccine efficacy trial (32) is a prerequisite.

A safe, highly effective, and affordable preventive vaccine offers the best long-term hope to control the pandemic, especially in less-developed countries. However, we must not expect that a vaccine will completely replace other HIV-1 preventive interventions, especially if the first generation of vaccines have only modest protective efficacy. These vaccines would need to be delivered as part of comprehensive HIV-1 prevention packages, including other health promotion and behavioral interventions. Moreover, the availability of even a modestly effective vaccine could reinvigorate social behavioral interventions, which may have to be redesigned around future vaccine delivery programs, with strong community participation (71,72,73).

It is recognized that vaccines are among the most cost effective health intervention, unfortunately, few people seem to appreciate the intense research needed for the development

of vaccines, including multiple clinical trials. The same lack of understanding seems to exist among many international agencies, donors, and foundations, since they have been hesitant to adopt HIV-1 vaccine development as one of their priorities. Financial support is required not only to develop new vaccine candidates, but also to strengthen appropriate infrastructures in less developed countries where many vaccine trials will be carried out, and where future effective vaccines will have to be used as a matter of urgency.

The priority for making an HIV-1 vaccine widely available in the future lies in trying to develop such a vaccine through preclinical research, product development, and clinical trials today. This research process will not be easy, nor will it be fast, and it will require intense international commitment, collaboration and coordination (72,73).

2.6.1. The challenge

The three major scientific challenges for HIV vaccine development are:

1. The immunological correlates of HIV/AIDS protection are not known. A major stumbling block for the rational development of HIV vaccines has been the lack of information on the immunological correlates of protection against HIV/AIDS. With most of vaccine preventable diseases, naturally occurring (or vaccine induced) immune responses correlate with protection against infection or diseases. In contrast, even though most people infected with HIV developed a broad range of immune responses against the virus, these responses neither eliminate the infection nor prevention progression to AIDS. Ongoing HIV vaccine

development strategies are targeted at the two major types of immune responses, humeral and cell-mediated immunity, and include strategies to induce both of them.

2. The genetic variability of HIV. Genetic analysis of HIV strains isolated from different parts of the world has revealed that several HIV genes exhibit extensive sequence heterogeneity, particularly in the gene coding for the viral envelope proteins, gp120 and gp41 (both these envelope proteins are expressed at a gp160 precursor that is subsequently cleaved into gp120 and gp41)(10,23,53). This heterogeneity has been used to classify HIV-1 group M (or “Major”) which in turn, is divided into at least nine genetic subtypes (A-J). These subtypes have distinct geographic spread. Viruses from different subtypes can also recombine among themselves, generating unique and circulating recombinant forms (CRFs).

3. The lack of good animal models. Several experimental HIV vaccines have induced different degrees of protection in primate models, including chimpanzees challenged with HIV or monkey challenged with the analogous Simian Immuno-deficiency virus (SIV). The existing studies that are beginning to be generated have shown that some of the vaccines now seem to protect some monkeys against some strains of SIV (17). It is unclear whether the animal results will be predictive of vaccine-induced protection in humans such information will only result from human trials (72).

Vaccine research is a long process that begins with basic research to identify potential immune correlates of protection, designs of appropriate immunogens, or vaccine concepts,

and obtains safety, immunogenicity, and protection data in animals. The next step is to translate promising vaccine concepts into candidate vaccines that are appropriate for clinical evaluation in human volunteers (71,73).

The first-generation HIV candidate vaccines were based on the envelope proteins of HIV, especially gp120. These vaccines, which are designed to induce the production of neutralizing antibodies, may have the limitation that the gp120 protein is the most variable component of the virus. Second-generation candidate vaccines are being designed to induce cell-mediated immunity, using either live vectors (such as vaccinia, canarypox, and others) or “naked” DNA that codes for different HIV genes. These vector vaccines are probably the most promising approach we currently have (74). Third-generation vaccines, based on regulatory non-structural proteins of HIV, such as Tat (a transactivator of HIV gene expression) and Nef (a multifunctional myristilated protein), are also emerging. Some immunization protocols use a combination of two different vaccines to induce broader and/or stronger anti-HIV immune responses. Many of these experimental vaccines and their combinations are being tested in primate models, with different degrees of success, and it is expected that several will eventually move to clinical trials in humans, a long process with several phases (31,12,51,71,72,73).

Phase I trials are conducted with a small number of volunteers, usually from 20 to 50, to obtain initial information on the immunogenicity and safety of the candidate vaccine.

Phase II trials usually involve several hundred volunteers and are to obtain additional

immunogenicity and safety data, as well as information about different populations, vaccine doses, etc.

Phase III trials are large-scale trials to assess the efficacy of the candidate vaccine for preventing infection or disease. Phase III trials usually involve thousands of healthy volunteers at a relatively high-risk of HIV infection. For statistical reasons, the number of volunteers participating in a phase III trial depends largely on the frequency of HIV infections in the study populations: the higher the HIV incidence, the lower the number of volunteers required in the trial. In a typical phase III trial, a total of approximately 5000 volunteers would be required if the incidence of HIV infection in the population is 1.5% per year. Half of the volunteers would receive the experimental vaccine and the other half, a control injection (a placebo or unrelated vaccine). For ethical reasons, all trial participants should receive counseling and other risk-reduction interventions. Hopefully, these actions will decrease the baseline incidence of HIV infections in the study population, an effect that should be considered when estimating the trial sample size. To avoid experimental bias, neither the volunteers nor the investigators should know who is receiving the control injection (it should be a “double-blind, placebo-controlled” trial).

The study population is usually followed for three years, after which the code is broken and the number of HIV infections in the control group is compared with that in volunteers receiving the vaccine, from which the vaccine efficacy can be estimated. For example, if the number of infections in the vaccine group is ten times less than in the control population,

vaccine efficacy would be 90%. Phase III trials are long and complex and in the most optimistic scenario it takes 6-9 years between phase I trials and the results of a phase III efficacy trial (12,51,73).

The first phase I trial of an HIV candidate vaccine trial was conducted in the USA in 1987, using a gp160 candidate vaccine. Subsequently, more than 30 HIV candidate vaccines have been tested in 60 phase I or phase II trials, involving more than 10,000 healthy volunteers. Most of the trials have been conducted in the USA and Europe, although some have also been conducted (or are being conducted) in developing countries, including Brazil, China, Cuba, Haiti, Kenya, Thailand, Trinidad, and Tobago, and Uganda. Trials in developing countries are important for several reasons. First, most infections occur in such countries, where an effective vaccine would eventually be used and be most beneficial. Second, to produce valid and timely results, phase III efficacy trials need to be conducted in populations with high incidence of HIV infections. Third, the genetic and antigenic variability of HIV may necessitate testing candidate vaccines in different areas of the world. Finally, it may be necessary to evaluate how different routes and/or cofactors for HIV transmission influence vaccine protection (31,51,73).

The first phase III trial of HIV candidate vaccine began in June 1998 in the USA (with “sites” in Canada and the Netherlands), using a bivalent BB (i.e. based on two different subtype B strains) gp120 candidate vaccine (VaxGen, Brisbane, CA, USA). This candidate vaccine is being tested in 5400 human volunteers; the majority of whom are homosexually active men.

The second phase III trial, started in March 1999 in Thailand, is designed to assess a bivalent BEgp120 candidate vaccine in 2500 volunteers recruited among recovering injecting drug users in Bangkok. Results from these trials will be available within the next 1-2 years and offer the first opportunity of having an HIV vaccine. Trials have also been done in several less developed countries.

A phase III trial is being planned by the US National Institute of Health, to be initiated in several countries in the Americas early in 2003. This will assess the efficacy of a prime-boost regime, combining a canarypox-HIV vector (Arentis Pasteur, Lyon, France) and gp120. Both vaccines are based on HIV subtype B, the most prevalent in the region. A similar prime-boost phase III trial using candidate vaccines based on the HIV subtype E of the virus is also being planned in Thailand. Efficacy results from these trials will be available around 2006 at the earliest, and would represent a second chance of identifying an effective vaccine (51,72,71,73)

Since the early 1990s, a number of data-based studies on willingness to participate in HIV vaccine efficacy trials have appeared. These include assessments on: Injecting drug users (IDUs) in Bangkok (Thailand); Gay men and bisexual men in three US cities (San Francisco, Denver and Chicago); Gay men and homosexual men in New York City; IUDs in Philadelphia; IDUs in Baltimore; IDUs, men who make sex with men (MSM), and women at increased risk for HIV in the US (75) and female CSWs, men attending STI clinics, and military conscripts previously enrolled in longitudinal cohorts in Thailand.

In the assessment conducted among diverse groups in northern Thailand, 25% of participants were willing to participate in a vaccine efficacy trial. The assessment among diverse groups in the U.S. found a similar proportion (27%) of participants willing to participate and people who had previously participated in HIV vaccine trial feasibility studies were significantly less likely to be willing to participate in an actual trial. In contrast, the assessment among IDUs in Bangkok found 51% were willing to participate at baseline. In the three-city assessment among gay and bisexual men in the US 37% of participants stated they were willing to participate in a vaccine efficacy trial at baseline. Use of the measurement scale among gay and bisexual men in New York City found 68% willingness to participate. Comprehension (knowledge) was high at baseline and improved at one week follow up among IDUs receiving in-depth information in a group setting on a potential gp120 trial in Bangkok, Thailand (75).

In a study among 262 male Wonji factory workers and estate workers 484 in 1997, the proportion of individuals who agreed to participate in the pilot study was higher in estate workers than in Wonji factory workers (83% versus 64%). However, in pilot study participants, the acceptability of a long-term research project on HIV/AIDS was very high for both groups (98% and 99% in estate and factory workers, respectively). Irrespective of their willingness to participate in future long-term study on HIV/AIDS, individuals were asked about their concerns in the study procedure. Estate workers mentioned more often than factory workers, the fear of blood drawing, embarrassment in answering questionnaire and lack of incentives to join the study as their main concerns associated with their possible participation in the cohort study (33).

In the case of HIV vaccine trials, it is important to ensure that participants do not put themselves at an increased risk of infection because they believe that participation in a vaccine study confers protection against infection. Such concerns are justified in light of findings from studies evaluating decisions to enroll in HIV vaccine studies among gay men in the United States, injecting drug users in the US, heterosexual men and women in Kenya (76) and in SanFrancisco, male soldiers in Uganda and CSWs at STI clinics in Thailand. In each of these studies, a small proportion of the respondents indicated that they would either continue or potentially increase risky behaviors if enrolled in a vaccine study. In contrast, however, vaccine trials in Thailand and the US reported no increases in an actual trial demonstrating that it is possible to conduct trials without exposing the participants to risk (82).

Given the potential importance of an HIV vaccine, even an unproven one, to high-risk persons, it is clearly crucial that understandings about trials and willingness to participate (WTP) be carefully evaluated before implementing vaccine trials.

In a cross-sectional study of vaccine knowledge and WTP in a phase III HIV vaccine trial in four cohorts in Thailand, Cenletano et al. (82) report that only 25% of the participants were willing to participate, even though most indicated that an approved, effective vaccine would be important to them personally. The primary reasons for not wishing to participate are concerns about safety of the vaccines, and fears of being coerced to participate. A small proportion of

participants reported that they would be less likely to use condoms if enrolled in a vaccine study. WTP remained high throughout follow-up. At baseline 79% were WTP and 17% were unwilling. Of those who completed 24 months follow-up, 24% of those who initially were willing became unwilling and 54% of those unwilling at baseline were willing. Initially, the most frequently stated reason for not being willing to participate in a trial was fear of side effects 28% (82).

It is clear that preparation for an AIDS vaccine trial must begin far in advance of the actual trial and must include more persons than those targeted for recruitment. It is urged that every vaccine trial include preliminary data collection on vaccine trials attitude and understanding and that trials be required to create a vaccine educational program tailored to the information needs of that population.

In a study for Medical eligibility (1995) of IDUs in phase I/II trials, 171 of the volunteers who answered the attitude questions, 91% felt that successful development of an HIV vaccine was possible. If an effective vaccine were to become available, 81% said they would be willing to receive a vaccination (77).

Approximately one-quarter of the interviewed PAVE (Preparedness for AIDS Vaccine Evaluation) participants indicated they would definitely join an AIDS vaccine trial if asked to do so. The principal barriers were concerns about the safety of the vaccine (61% of military cohorts and 32% of civilians), fear of acquiring AIDS through vaccination (21%). WTP rated

from 38% among female CSWs to 52% among current conscripts. The majority of participants (88-97%) were aware of vaccines or AIDS vaccine, although sizeable minorities were not knowledgeable (82).

There are very limited studies done in Africa on knowledge and willingness to participate in HIV vaccine trials and none in Ethiopia. Identification of a site suitable for a long-term cohort study on HIV/AIDS trend in sexual behavior and vaccine trial is a crucial task. In as much as natural history study starts from sero-conversion, the target population should consist of HIV negative individuals; a substantial HIV epidemic should be occurring to enroll sufficient number of sero-converters; the population should be stable; and finally, the project must be acceptable to the community in the chosen site.

Therefore, the main objective of the present study was to assess knowledge, attitudes, risk behaviors on HIV/AIDS and knowledge about and willingness to participate in an HIV vaccine trial, among high school teachers in Addis Ababa.

1. RATIONALE OF THE STUDY

In every generalized epidemic to date, the overwhelming risk factor for HIV infection has been unprotected sex with a partner of opposite sex. In this context, it is necessary that surveys concentrate their resources not only on the general population, but also on subsets of the general population, which may be missed in household surveys.

High school teachers constitute one such group. Teachers are the key to the future course of the epidemic. They are an essential focus for disseminating prevention messages in every sexual health program. Since most infections are occurring in young people, trying to bring about modest changes in behavior by inculcating the correct information will have a significant impact on the epidemic.

Ideally behaviors should be measured separately for male and female teachers. Due to very small number of female teachers, it will not be possible to have separate samples for each sex category. The study was restricted to high school teachers because this group constitutes one of the most active groups in the society and is an important source of health knowledge acquired by students. Teachers have paternal, educational and advisory role to their students and hence, by the virtue of their profession have very frequent contacts with students.

They are leaders of HIV/AIDS clubs in all the high schools and this makes them the appropriate persons for the dissemination of any information regarding AIDS. They are also

prominent figures in the community in their residential areas and are most of the time decision makers. Whatever they do in the school, in the community and at their home; be it a risk behavior or otherwise; is reflected in the students that they teach, in the community they live with and in their families (34).

The prevalence of high-risk sexual practices related to HIV transmission or practices against its spread is not known for high school teachers in Addis Ababa. No information is available either concerning the high school teacher's knowledge, practice and attitudes towards HIV/AIDS, nor is there any information available with regards to their knowledge and willingness to participate in an HIV vaccine trial. The seroprevalence of HIV infection among the general population of Addis Ababa city is estimated to be 16.8% (3).

Addis Ababa is the capital city of Ethiopia. This city is undergoing a rapid urbanization process with a large influx of people coming from different parts of the country to work, and from abroad as tourists. The city, in addition to being by itself a tourism area, also serves as a transit for tourists heading for the different tourist sites located throughout the nation, and for a number of heavy truck drivers and their assistants. There are also quite a huge number of CSWs residing in the city. It seems legitimate to postulate that these factors must have contributed to the introduction and spread of HIV in the city, and are likely to continue doing so in the future. Addis Ababa was selected as the study area because it is the only city where one can get such a high number of high school teachers to satisfy the chosen sample size.

4. OBJECTIVES

4.1. General objective:

To assess sexual behavior of high school teachers and their knowledge and willingness to participate in a possible HIV vaccine trial.

4.2. Specific objectives:

1. To assess knowledge, attitude and risk behavior on HIV/AIDS in high school teachers of Addis Ababa.
2. To describe the extent of condom use among high school teachers.
3. To describe the level of knowledge on HIV vaccine and willingness to participate in a possible vaccine trial among high school teachers in Addis Ababa.
4. To identify the factors associated with willingness to participate in vaccine trial.

5. OPERATIONAL DEFINITIONS OF TERMS

<i>Sexual intercourse</i>	Sexual activity that refers to penetration of the penis in the vagina or anus.
<i>Regular partner</i>	This refers to a sexual partner either spouse or one who lives in together within the last 12 months.
<i>Commercial sexual partner</i>	Either male or female who had sex with any opposite sex in exchange for money.
<i>Non-regular partner</i>	Partner that the respondents are not married to and have never lived with and didn't pay.
<i>Vaccine</i>	Any preparation intended for active immunological prophylaxis.
<i>WTP</i>	<i>Willingness to participate in a vaccine trial</i>
<i>Placebo</i>	An (inert) inactive substance or preparation

6. RESEARCH METHODOLOGY

6.1. Study design- Cross-sectional survey

6.2. Study area and population

6.2.1. Geographic Background of Addis Ababa: The study was conducted in Addis Ababa, which is the capital city of Ethiopia. It is geographically located at the center of the country and has an area of 540 square kms. The altitude of the city ranges between 2000 and 3000 meters above sea level. Addis Ababa is also the economic and social center of Ethiopia. A large proportion of the country's large and medium scale industries, health and social services are found in the city. Administratively the city is divided into six Zones, 28 Woredas (Sub-districts) and 328 Kebeles (smallest administrative units). All of the country's ethnic groups are represented in Addis Ababa, the Amhara, Gurage, Oromo and Tigray accounting for 90%. The population of Addis Ababa is 2,432,426 (CSA, 1990 E.C); with a population growth rate of near 3.79% per year (81) and the population in the age group of 15-49 years is 1,262,059(CSA, 1990 E.C). Crude birth rate is about 15.7/1000 populations and crude death rate is 7.5/1000 populations. Infant mortality rate is 78/1000 live births and child mortality rate is 108/1000 children of less than five years. Maternal mortality ratio is 556/100000 live births. Life expectancy at birth is 60.3 and 56.6 years for females and for males, respectively. Much of the population growth in the city still stems from migration from the countryside and smaller urban areas. Unemployment is high and incomes are low. The city is characterized by substandard housing conditions, inadequate health services and poor sanitation. Over 87%

of the population has attended school by 1994. The presence of large numbers of commercial sex workers aggravates the spread of HIV and other sexually transmitted diseases (81).

The study population is high school teachers who are government employees and teaching in Addis Ababa. The study was conducted from January 10 –30, 2002.

6.3. Sampling and Survey Procedures

6.3.1. Sample size determination

The formula of the difference between proportions was used to determine the sample size.

$$n = D \frac{\left[\sqrt{2 P (1-P) Z_{1-\alpha}^2} + \sqrt{P_1 (1-P_1) + P_2 (1-P_2) Z_{1-\beta}^2} \right]^2}{\Delta^2}$$

Where:

D= design effect;

P₁= the estimated proportion of condom use at the time of the first survey (1993);

P₂ = the proportion of condom use at the time of this survey such that the quantity (P₂-P₁) is the size of the magnitude of change that is desired to be detected;

P= (P₁+P₂)/2;

Δ²= (P₂-P₁)²

Z_{1-α}= the z-score corresponding to the degree of confidence with which it is desired to be

certain of detecting a change of size (P_2-P_1) if one actually occurred.

$$\alpha= 0.05 \text{ (} Z_{1-\alpha}=1.65) \quad \beta=0.20 \text{ (} Z_{1-\beta}=0.84)$$

To determine the necessary sample size since no KAP study on high school teachers has been performed yet in Ethiopia, we have assumed college students as being equally knowledgeable as high school teachers and the prevalence of condom use in college students was considered. This was reported to be 33% (37) in 1993 and 48% (61) in 1995 among college students in Gondar, and 18% (41) among college students in Addis Ababa in 1997. Taking the average, condom use rate became 34%. Assuming this value to increase to 50% by the year 2001, P_2 was taken to be 50%. The design effect is estimated at 2 because of the cluster design used to sample the target group with 95% confidence of certainty ($\alpha=0.05$). The level of precision is set at 0.05.

Application of the above formula yields a sample size of 322. However, allowing for the fact that not all high school teachers will use condoms, and recognizing that several of the indicators concern only the sub-sample who have used condoms in the past 12 months, the sample size have been doubled to 644. This is based on the estimate that 50% of the high school teachers have used condoms. In addition to compensate for non-response, the sample size has been increased to 800 under the assumption that non-response will be approximately 25%. (Non-response includes refusal, failure to complete a questionnaire, etc.).

The sampling frame for selection of high school teachers was obtained from the Regional Education Bureau. A list of schools and the number of teachers was used as the first level

sampling frame.

There were a total of twenty-five registered governmental high schools with a total of 2273 teachers working in Addis Ababa at the time of the study. All the 24 schools (except the school which was used for pretest) were used in this study with a total of 2234 teachers. At the next level we used a random sampling procedure to select thirty-four eligible teachers aged 15-49 years from each school and attain the required sample size.

Upon arrival in the schools, the supervisors and principal investigator contacted the authorities to inform them of the presence of the study team and to introduce the data collectors. Data collectors distributed standardized and structured self-administered questionnaires.

The following inclusion criteria were used: Teachers who are government employees, working in public schools and within the age group of 15-49 years.

6.3.2. Data collection tools and procedures

A standard questionnaire that was designed by Family Health International for Behavioral Surveillance Survey (BSS) was used to collect information on high-risk behavior for HIV-1 transmission among the study participants. The Vaccine Trial Preparedness Component of the questionnaire was adapted from different literatures reviewed pertinent to the topic (33, 34,

35, 36, 37, 38, 82). The questionnaires were self-administered. The questionnaires consist of different variables such as socio-demographic variables, knowledge on HIV vaccine and vaccine trial, willingness to participate in HIV vaccine trial, condom use, sex with non-regular partners, coitus before the age of fifteen years...etc. The questionnaires were distributed to the teachers after a brief explanation on the objective and need of the study by the principal investigator.

6.3.3. Independent and outcome variables

1. Independent

- Socio demographic variables: -sex, age, marital status, religion, occupation, income, educational status and ethnicity.

2. Dependent

- Willingness (for vaccine trial)
- Prevalence of high-risk sexual behaviors (i.e. condom use, sex with non-regular partners, coitus before the age of 15 years...etc)
- Knowledge regarding vaccine trial
- Attitude regarding vaccine trial
- Perception regarding vaccine trial

6.3.4. Pre-testing the questionnaire

The questionnaire was pre-tested in non-randomly selected high school teachers of Tikur Anbassa Comprehensive Secondary School, which was not included in the main study. During the pre-testing, the questionnaire was assessed for its clarity, understandability, completeness and reliability. The sensitivity of the subject matter and pattern of response were also assessed. This group was not included in the study. Modifications and omissions were made in some of the ambiguous questions. The pre-test also helped to identify that the teachers need some days before they return the filled questionnaires and gave us a clue regarding the high non-response rate (20%).

The questionnaire can be self-administered because in a pilot study done among high school students, there were similar findings for interviewers and self-administered questionnaires.

6.3.5. Data quality assurance

The survey questionnaire was translated from English to Amharic and back translated to English by two different individuals who have very good language ability of both the languages to ensure that the two languages were comparable. Training of data collectors, daily supervision by the principal investigator and pre-test has been performed.

6.3.6. Training and supervision

Three days of training was given to enumerators, before data collection. Training was given by the principal investigator and supervisors. A training manual was used to acquaint the trainees with needed information so as to assure data quality. Three supervisors daily-supervised the survey process at field. Everyday-completed questionnaire was checked for clarity, consistency and completeness. Data collected was checked daily both by the supervisors and the principal investigator for clarity of filling of questionnaire.

6.3.7. Data processing and analysis

After data collection was completed, the data was categorized and coded on the prepared coding sheet. Data was entered in the EPI-INFO version 6 statistical packages in the preformed template and cleaned using the same package by a professional data clerk in collaboration with the principal investigator. The analysis was done using EPI-INFO and in addition SPSS version 10 for window was used to do cross tabulations, test of associations, binary and logistic regressions, respectively. Most of the independent variables, different types of outcome variables are dichotomized and analyzed with chi-square test and odds ratio with 95% confidence interval.

6.3.8. Ethical considerations

Before the study began, ethical clearance was obtained from the Ethical Committee of Addis Ababa University. Then an official letter from the Department of Community Health, AAU, was written to Addis Ababa Administration Education Bureau officials, from which a letter of cooperation to each high school was written. Informed consent from each respondent was obtained before data collection. Anyone who was not willing to participate in the study was excluded. Confidentiality was maintained by avoiding the labeling of names and by ensuring that the filled questionnaires were collected after being put in a separate cabinet where no one can see the respondent.

7. RESULTS

7.1. Socio demographic characteristics

Out of 800 randomly selected high school teachers, a total of 621 respondents participated in the study (a response rate of 77.6%: For non-respondents, no systematic differences were seen between the respondents and the non-respondents; i.e. in terms of age and sex; in this survey). At the time of the survey all high schools were undergoing their first semester examination which adds to the load of the respondents. This has contributed to the increased non-response rate because after a prolonged period of time the respondents claimed to have forgotten where they have put the questionnaire papers. The mean delay to return the filled questionnaire was one week ranging from four days to two weeks.

The socio-demographic characteristics are presented in (Table 1). From the 621 participants, 122 (19.6%) were females and 499 (80.4%) were males. The mean (SD) and median age for the study population were found to be 37.48 (7.9) and 40 years, respectively. Regarding their religion, the majority 79.4% of the participants were Orthodox Christians and 5.8% were Muslims. Three hundred forty three (55.2%) of the high school teachers were Amharas, 142 (22.9%) were Oromos, 58 (9.3%) were Tigrayans and 46 (7.4%) were Garages. Very few of the respondents 34 (5.5%) used to drink alcohol daily and 162 (26.1%) of them weekly. Two hundred forty (38.6%) of them used to chew “chat”. In our survey 157 (25.3%) of the participants have traveled into different parts of the country and stayed away from home for

more than 30 days in the past 12 months (See table 1).

Table 1. Socio-demographic characteristics of respondent high school teachers in Addis Ababa, January 2002. (n=621)

Variable	Number	Percent
Sex		
Male	499	80.4
Female	122	19.6
Age		
15-24	44	7.1
25-34	173	27.9
35-44	259	41.7
45+	145	23.3
Educational level		
12 th complete	26	4.2
Diploma holder	181	29.1
Degree holder	414	66.7
Religion		
Orthodox Christian	493	79.4
Other Christian	82	13.2
Muslim	36	5.8
Others	10	0.6
Ethnicity		
Amhara	343	55.2
Oromo	142	22.9
Tigray	58	9.3
Gurage	46	7.4
Others	32	5.2
Income		
Less than 600	69	11.1
Greater and equal to 600	552	88.9
Alcohol intake		
Daily	34	5.5
Weekly	162	26.1
Less than once a week	138	22.2
Never	287	46.2
Khat intake		
Yes	240	38.6
No	381	61.4
Total number of years in Addis Ababa		
Less than five years	100	16.1
Greater and equal to five years	521	83.1
Away from home for more than one month in past one year		
Yes	157	25.3
No	464	74.7

7.2. Marriage and Sexual History

Marriage and sexual history for the respondents are depicted in table 2. As low as 13 years of age at first marriage was documented among the respondents. The mean (SD) age at first marriage was 26.71(6.45) years and the range was from 13 to 40 years. Very few (1.4%) of the married participants were living in polygamous marriage at the time of the survey.

A total of 587 (94.5%) of the respondents ever had sexual intercourse. The mean (SD) age at first sexual intercourse was 18.74 (3.21) years. Five hundred and fifty eight (89.9%) had sexual intercourse in the last 12 months i.e. 441 (71%) had with regular partner, 164 (26.4%) sex in exchange with money and 249 (40.1%) with their non-regular non-commercial partner. Out of the 353 sexually active teachers in the age group of 15-19 years of age, 168 (47.5%) had sexual intercourse in the last 12 months. There was no statistically significant difference between males and females in the high school teachers in reporting sexual intercourse in the last 12 months ($\chi^2=3.5$; $p=0.169$). Out of the total 621 respondents, 26.4% of them had sexual intercourse with commercial sex workers.

Table 2. Marriage, sexual history, number and type of partner for the respondent high school teachers in Addis Ababa, January 2002. (n=621)

Variable	Number	Percent
Current marital status		
Married	344	55.4
Unmarried	277	44.6
Age at first marriage		
Less than 15 years	2	0.6
15-19 years	31	9.0
Greater than 19 years	311	90.4
Ever had sexual intercourse		
Yes	587	94.5
No	34	5.5
Age at first sexual intercourse		
Less than 15 years	15	2.6
15-19 years	353	60.1
Greater than 19 years	219	37.3
Had sexual intercourse in the last 12 months		
Yes	524	89.3
No	63	10.7
Regular partner in the last 12 months		
None	162	29.0
One	377	67.0
Two and more	19	3.4
Sex in exchange for money in the last 12 months		
None	411	73.6
One and more	147	26.4
Non- regular non- commercial in the last 12 months		
None	334	59.9
One and more	224	40.1
Non-regular non-commercial for more than 12 months in last 12 months		
None	392	70.2
One	156	28.0
Two and more	10	1.8

7.3. Condom use

Among all the sexually active respondents (587), 404 (68.8%) have ever used condom in their lifetime. From 318 males 202 (63.7%) and from 86 females 31 (24.8%) have ever used condom. Ever use of condom was used as a dependent variable because it is similar to condom use rate.

There was no statistically significant difference between males and females in ever use of condom with [OR = 0.66; 95% CI=0.37,1.12]. Condom use among the respondents with different partners is summarized in Table 3. From the 587 sexually active respondents in last 12 months, it was 404 (68.8%) that have ever used condom. From the 437 respondents who had sexual intercourse with regular partners in last 12 months, 185 (45.8%) didn't use condom during the last time of sexual intercourse with their regular partner. The most important reasons mentioned were; 49 (7.9%) did not think it was necessary, 118 (19.0%) had trusted their partners and 15 (2.4%) said it reduced their sexual pleasure.

Out of the 164 respondents who had commercial partner in the last 12 months; 146 (89.0%) used condom during the last sexual episode with them. The majority (52.7%) of them used condom by joint decision and the rest by partner or by their own decision. Pattern of condom

use among respondents is summarized in table 3.

Table 4 shows the frequency of condom use in relation to certain determinant factors. Participants who had non-regular non-commercial partners [OR=0.48; 95% CI=0.33,0.70] and visited CSWs [OR=0.41; 95% CI=0.26,0.64] were significantly less likely to use condoms. On the other hand participants who were Amhara by ethnicity [OR=2.53; 95% CI=1.01,6.37] and ever had sexual intercourse [OR=28.93; 95 %CI=6.41,130.63] were significantly more likely to use condoms.

Table 3. Condom use and initiation among respondent high school teachers in Addis Ababa, Jan. 2002. (n=621)

Variable	Number	Percent
Ever used condom		
Yes	404	68.8
No	183	31.2
Condom use with regular partner last time		
Yes	219	54.2
No/Don't know	185	45.8
Who initiated condom use during sex with regular partner		
Either	97	44.3
Both	122	55.7
Condom use with non-regular non-commercial last time		
Yes	209	51.7
No /Don't know	195	48.3
Who initiated condom use during sex with non-regular non-commercial		
Either	91	43.5
Both	118	56.5
Condom use with CSW last time		
Yes	146	36.1
No /Don't know	258	63.9
Who initiated condom use during sex with CSW		
Either	69	47.3
Both	77	52.7
Condom use with non-regular non-commercial for more than 12 months last time		
Yes	152	37.6
No/Don't know	252	62.4
Who initiated condom use during sex with non-regular non-commercial for >12 months		
Either	75	49.3
Both	77	50.7

Table 4. Factors associated with frequency of condom use ever among respondent high school teachers in Addis Ababa, January 2002.(n=621)

Variable	Ever use of condom (n=621)		Crude OR (95%CI)	Adjusted OR(95%CI)
	Yes	No		
Sex				
Male	318	181	1	1
Female	86	36	1.36(0.87,2.15)	1.61(0.99,2.62)
Age				
Greater and equal to 25	26	36	1	1
Less than 25 (years)	378	181	0.35(0.19,0.61)	1.90(0.89,4.06)
Marriage				
Married	231	113	1	1
Unmarried	173	104	1.23(0.87,1.73)	0.75(0.50,1.12)
Religion				
Non-christian	27	19	1	1
Christian	377	198	0.75(0.39,1.46)	0.91(0.45,1.83)
Educational level				
Degree	121	86	1	1
Diploma	283	131	0.65(0.45,0.93)	0.68(0.44,1.03)
Income				
Less than 600	37	32	1	1
Greater and equal to 600	367	185	0.58(0.34,1.00)	0.62(0.29,1.33)
Ethnicity				
Amhara	193	150	1.42(1.00,2.02)	2.53(1.01,6.37)
Non-Amhara	211	67		
Oromo	93	49	0.98(0.64,1.47)	2.31(0.88,6.05)
Non-Oromo	311	168		
Tigray	45	13	0.51(0.25,0.99)	1.15(0.38,3.50)
Non-Tigray	359	204		
Gurage	13	33	2.81(1.40,5.93)	1.58(0.51,4.88)
Non-Gurage	302	273		
Exchanged sex for money in last 12 months				
Yes	274	183	1	1
No	130	34	0.39(0.25,0.61)	0.41(0.26,0.64)
Had sex with non-regular non-commercial in last 12 months				
Yes	214	158	1	1
No	90	59	0.42(0.25,0.61)	0.48(0.33,0.70)
Duration of residency				
Yes	75	47	1	1
No	329	170	0.82(0.54,1.27)	0.92(0.57,1.49)
Ever had sex				
Yes	402	185	1	1
No	2	32	34.77(8.67,301.07)	28.93(6.41,130.63)

7.4. Knowledge on STIs and HIV /AIDS

All of the respondents have heard about the different types of sexually transmitted diseases. More than half of them (64.7%) did mention most of the important symptoms in women (lower abdominal pain, genital discharge, ulcer and swelling around the genitalia, itching around the genitalia and pain during urination). Respondents who correctly mentioned all the important symptoms of STIs such as ulcer, swelling in the genitalia, pain and discharge from the urethra in men were 79.5%.

Table 5 shows the modes of transmission and prevention of AIDS mentioned by the 621 respondents. The disease HIV/AIDS is very well known to all of the respondents.

About 40% of the respondents had knowledge on HIV/AIDS prevention and transmission. In the present survey to say an individual has adequate knowledge for HIV/AIDS prevention and transmission; he/she must know all of the following items: persistent condom use, sexual abstinence and having faithful uninfected partner are ways of prevention of transmission. It was found that 144 (23.2%) of the respondents had some form of misconception on the transmission of HIV (See table 5).

Very few of the respondents mentioned that they were offended by some of the questionnaires.

Table 5. Modes of transmission and prevention of AIDS mentioned by respondent high school teachers in Addis Ababa, January 2002. (n=621)

Variable	Number	<u>Yes</u>
Percent		
Mode of transmission		
From infected mother to fetus	581	93.6
From infected mother to child by breast milk feeding	444	71.5
Getting injections with needle used by someone else	596	96.0
Being bitten by mosquitoes	43	6.9
Eating together with AIDS patients	22	3.5
Mode of prevention		
Sex only with one uninfected faithful partner	588	94.7
Abstinence from sex	539	86.8
Using condom during sexual intercourse	280	45.1

7.5. Perceived susceptibility

Participants perception of themselves as being susceptible to the virus was assessed by asking the question “ Do you feel at risk of acquiring HIV infection as a result of current /past high-risk behaviors?” A total of 137 (27.1%) respondents were aware of being engaged in high-risk practices, which may expose them in acquiring the disease.

Being female [OR= 1.71; 95% CI=1.03,2.86], being Amhara [OR=2.70; 95% CI=1.27,5.75], being Oromo [OR=2.75; 95% CI=1.22,6.23] and being Tigrayan [OR=2.64; 95% CI=1.03,6.79] made them feel more at risk in multivariate analysis but individuals who had positive attitude to VCT [OR=0.56; 95% CI=0.36,0.89] felt themselves at less risk in multivariate analysis (See table 6).

Table 6. Determinants of perceived susceptibility to HIV/AIDS among respondent high school teachers in Addis Ababa, January 2002. (n=621)

Variables	Perceived susceptibility for HIV/AIDS (n=621)			
	Yes	No	Crude OR (95%CI)	Adjusted OR (95%CI)
Sex				
Male	146	353	1	1
Female	22	100	1.88(1.12,3.26)	1.71(1.03,2.86)
Age				
Greater and equal to 25	146	271	1	1
Less than 25	22	40	0.64(0.36,1.18)	1.90(0.89,4.06)
Marriage				
Married	86	258	1	1
Unmarried	82	195	0.79(0.55,1.15)	0.75(0.50,1.12)
Religion				
Non-christian	7	39	1	1
Christian	161	414	0.46(0.17,1.07)	0.91(0.45,1.83)
Educational level				
Degree	110	214	1	1
Diploma	58	149	1.34(0.94,1.90)	0.68(0.44,1.03)
Income				
Less than 600	21	48	1	1
Greater and equal to 600	147	405	1.22(0.71,2.09)	1.62(0.75,3.49)
Ethnicity				
Amhara	91	252	1.06(0.73,1.54)	2.70(1.27,5.75)
Non-Amhara	77	201		
Oromo	34	108	1.23(0.79,1.97)	2.75(1.22,6.23)
Non-Oromo	134	345		
Tigray	15	43	23.08(10.19,52.95)	2.64(1.03,6.79)
Non-Tigray	153	410		
Gurage	12	34	1.05(0.52,2.30)	2.67(1.00,7.14)
Non-Gurage	156	419		
Exchanged sex for money in last 12 months				
Yes	49	115	1	1
No	119	338	0.88(0.61,1.28)	2.67(1.00,7.14)
Ever had sex				
Yes	161	426	1	1
No	7	27	1.61(0.75,3.47)	0.49(0.19,1.28)
Duration of residency				
Yes	134	36	1	1
No	34	88	0.62(0.28,1.33)	0.97(0.61,1.56)
Have correct HIV knowledge				
Yes	146	403	1	1
No	22	50	0.82(0.47,1.48)	0.90(0.51,1.58)
Reject all misconceptions				
Yes	128	349	1	1
No	40	104	0.95(0.62,1.49)	1.03(0.66,1.60)
Attitude for VCT				
Yes	128	384	1	1
No	40	69	0.57(0.36,0.92)	0.56(0.36,0.89)

7.6. Vaccine knowledge and willingness to participate in HIV vaccine trial

Knowledge of the participants regarding vaccines in general was very high with 98.6% of them correctly responding that a vaccine is for protection (See table 7).

A total of 315(50.7%) of the respondents were willing to participate in a possible future HIV vaccine trial. The average age of those willing to participants was 37.5 years. Willingness to participate was examined in more detail by asking study subjects about their willingness as related to specific trial conditions. The most commonly stated reason for willingness was test of blood for HIV, 58.1% of those who were willing to participate.

Bivariate and multivariate associations were examined between willingness to participate and demographic variables. Those who were previously vaccinated [OR=0.27; 95%CI=0.10,0.73] and those who feel that vaccine is protective [OR=0.25; 95%CI=0.09,0.73] were more likely to be non-willing to participate. On the other hand, those who perceive that vaccine is important [OR=4.05; 95% CI=1.39,11.77] and those who want a test for HIV [OR= 18.77; 95% CI=12.03,29.29] were more likely to be willing to participate (See table 8).

Table 7. Knowledge of vaccines, attitude towards HIV vaccine and willingness to participate (WTP) on possible HIV vaccine trial among respondent high school teachers of Addis Ababa, January 2002. (n=621)

Variable	Yes	
	Number	Percent
Ever been vaccinated against any disease	587	94.5
Generally feel vaccines are important for good health	591	95.2
Willing to participate in possible HIV vaccine trial	315	50.7
Not willing to participate in possible HIV vaccine trial	306	49.3
Still willing to participate even if blood is tested every few months and the results are told	246	78.1
Still willing to participate even if there is a need to behave safely or protect oneself from AIDS	298	94.6
Aware that vaccines are for preventing infection	612	98.6
Think that vaccines can cure disease	63	10.1
Aware that both children and adults can receive vaccines	551	88.7
Heard of a study on a vaccine to prevent HIV/AIDS	447	72.0
Think that AIDS vaccine is for HIV infected people	174	28.4
Think that AIDS vaccine is for healthy people	306	49.3
Assume that if one participates in AIDS vaccine study; she/he may be considered as having the disease	223	35.9

Table 8. Factors associated with willingness to participate in possible HIV vaccine trial among respondent high school teachers in Addis Ababa, January 2002.(n=621)

Variables	Willingness (n=621)		Crude OR (95%CI)	Adjusted OR(95%CI)
	Yes	No		
Sex				
Male	246	253	1	1
Female	69	53	1.34(0.88,2.04)	1.04(0.62,1.74)
Age				
Greater and equal to 25	288	271	1	1
Less than 25	27	35	0.73(0.41,1.27)	1.34(0.59,3.07)
Marriage				
Married	180	164	1	1
Unmarried	135	142	0.87(0.62,1.20)	1.09(0.70,1.71)
Religion				
Non-christian	19	27	1	1
Christian	296	279	1.51(0.79,2.94)	0.73(0.34,1.60)
Educational level				
Degree	200	214	1	1
Diploma	115	92	1.34(0.94,1.90)	1.08(0.66,1.76)
Income				
Less than 600	38	31	1	1
Greater and equal to 600	277	275	1.22(0.71,2.09)	0.52(0.22,1.21)
Ethnicity				
Amhara	176	167	0.95(0.68,1.32)	0.99(0.37,2.66)
Non-Amhara	139	139		
Oromo	76	66	0.86(0.58,1.28)	1.13(0.40,3.16)
Non-Oromo	239	240		
Tigray	39	19	0.47(0.25,0.86)	0.57(0.18,1.82)
Non-Tigray	276	287		
Gurage	13	33	2.81(1.40,5.93)	2.63(0.78,8.88)
Non-Gurage	302	273		
Exchanged sex for money in last 12 months				
Yes	87	77	1	1
No	228	229	1.13(0.78,1.65)	1.05(0.66,1.66)
Ever been vaccinated for any dis.				
Yes	294	293	1	1
No	21	13	1.61(0.75,3.47)	0.27(0.10,0.73)
Perceived importance of vaccine				
No	21	13	1	1
Yes	294	293	0.62(0.28,1.33)	4.05(1.39,11.77)
May get protection from HIV infection				
No	5	4	1	1
Yes	310	302	0.82(0.16,3.86)	0.25(0.09,0.72)
May get tested for HIV				
Yes	41	219	1	1
No	274	87	16.8(10.95,26.01)	18.77(12.03,29.29)

8. DISCUSSION

The most challenging nature of HIV/AIDS is that its transmission is through sexual contact, a behavior that is relatively difficult for modification. Nevertheless, in designing preventive measures through behavior modification are implemented among population at-risk. For such intervention specific program is very crucial. Knowledge of the prevalent high-risk and preventive sexual behaviors is very important. Since HIV/AIDS prevention cannot be effective unless all sexually active persons consistently engage in safer sexual practices, it follows that efforts to intervene should take place as quickly as possible.

Those who are urged to modify their behavior experience the psychosocial burdens of threat, uncertainty, and stigmatization. Control strategies should involve modification rather than elimination of risk-related behaviors. Thus, “safer sex” guidelines have been developed which urge homosexuals and heterosexuals potentially at risk for transmission of HIV, to avoid the exchange of bodily fluids, particularly semen, during sexual activities. The consistent and careful use of well-designed condoms is recommended (43).

In the context of HIV/AIDS, the ultimate aim of risk vulnerability reduction is to enable people exert control over their own risk by a process of individual and collective empowerment as well as to develop societal responses that create an environment in which safer and protective behavior can be practiced. Risk reduction strategies constitute the major approach being used in HIV/AIDS programs since their inception. Clearly, enough evidence

exists to show that many such efforts do work and merit strengthening. Successes in HIV prevention using the risk-reduction model have been documented over the past few years. These include programs that focus on condom use, VCT services, provision of information, needle and syringe exchange programs, provision of STI diagnostic and treatment services, and prevention of mother-to-child transmission (43). Preventing HIV is thought to be achievable, because HIV is transmitted through the behavior of individuals and through a few recognized health care procedures. Of the various types of specific preventive measures available, the most cost-effective and probably efficient means of controlling the spread of AIDS in Africa and elsewhere, is health education of the general population and those engaging in high-risk behaviors (45,46,47). Thus, our focus of prevention at present should be towards providing education to produce a change in attitudes and ultimately, a modification or change of high-risk behaviors (49).

In the present study, human behavior that predisposes people to acquire and transmit the virus was assessed among a sample of urban high school teachers. Knowledge on vaccines and willingness to participate on possible future HIV vaccine trial was also assessed among this population subgroup. Use of standard and structured questionnaire, training and pretesting the instrument make the results internally valid. Taking a large sample size from the general population will make the findings valid for external generalizability to the population of teachers in Addis Ababa city. Study in Uganda used behavioral survey as an evidence to prove the reduction of HIV/AIDS prevalence during the past couples of years as a result of change in high-risk human behaviors gained some years earlier by strong social mobilization

and prevention campaign (40,46). For effective prevention and handling of the epidemic, definitive and concrete knowledge on various ways of viral transmission and rejecting prevalent misconception is crucial.

It appears that knowledge about AIDS may be important but not sufficient by itself to change behaviors. Although it is obvious that the prevention of HIV transmission is dependent upon the alteration of behavior, most would agree that appropriate knowledge and attitudes are prerequisites for such change. Nonetheless, there is little actual evidence that an individual's knowledge and attitudes towards AIDS significantly shape his or her behavior (44,64). Eventhough, in the final stage, it is the individual who decides to change his/her behavior, information about AIDS should be given to all. Moreover, health education is still the cheapest method available for the prevention and control of the AIDS pandemic. A study across a range of cultures has shown that good AIDS education among adolescents does not lead to increased sexual activity, but on the contrary delays the age of first sexual intercourse. It has also been confirmed that when the same adolescents become sexually active, they tend to avoid sexual risk behavior (65).

Assessment of high-risk behaviors in Ethiopia was initiated as early as 1990s (26,27,28). High score especially in some mode of viral transmission was documented which showed some successful achievement especially in raising awareness in the high school teachers (26,27,28). In this study, respondents were found to commence their sexual experience at early age. The age at which sexual intercourse was started was as low as thirteen years. Different studies

that are done among different subgroups of population in different parts of the country have shown that there is an early start of sexual intercourse. In Addis Ababa, high school teachers had first sex between the ages of 14-16 years. In Gondar, 40.2% of the college students have been reported to have had previous sexual experience at the mean age of 17 years and other studies among high school students from the different parts of the country indicated mean age at first sexual intercourse to range from 15.3 to 16.5 years (55). A general survey done at Addis Ababa, Bahir Dar, Awassa and Dire Dawa revealed that the age at first sexual intercourse to be 17-18 years (40). Surveys from a number of African countries also documented that there are early sexual initiation (55).

The attitudes of people towards AIDS need to be understood, as one of the factors that influence people's behaviors. Apart from attitudes towards persons with AIDS, an individual's perception of self-risk or vulnerability to HIV infection might play a major role in the person's decision to adopt safe behavior.

The correct and consistent use of condoms during sexual intercourse is a relatively cheap and effective measure to protect oneself from HIV infection. The findings of this study indicate that the prevalence of condom use is high, with 69.9% of the sexually experienced participants reporting having ever used condoms.

Condom use ever in relation to certain determinant factors showed the following results. Participants who were visitors of CSWs and had non-regular non-commercial partners were

significantly less likely to use condoms. On the other hand participants who were Amhara by ethnicity and those who had ever had sexual intercourse were more likely to use condoms.

The study at Gondar college students also reported high condom use rate especially among the health officer group (57). The results of the present study compare with that of Uganda, Zimbabwe and Nairobi; which were 55%, 78% and 80%, respectively (10,12,22).

A number of factors have been identified that place sexually active heterosexuals at high-risk of acquiring or transmitting HIV infection. Among these factors are having sex with multiple sexual partners, including extramarital sex, sexual intercourse with CSWs, and having a past history or concurrent episodes of STIs. In order to direct a preventive intervention toward an appropriate target group, the prevalence and distribution of such high-risk behaviors among the population should be well understood.

Abstinence from sex or a mutually faithful monogamous sexual relationship plays a major role in the prevention of HIV infection among those who follow these rules. A regular and correct use of condoms with every act of sexual intercourse may substantially reduce the risk of HIV infection, in those who could not stay with one partner faithfully (56).

The findings of the present study revealed that high-risk sexual practices associated with heterosexual transmission of HIV infection (sex with multiple sexual partners, sex with CSWs, etc.) are common among high school teachers in Addis Ababa city. Of the 587

sexually experienced participants, 75.1% had experienced sex with regular partners, 26.4% had engaged with CSWs and 40.1% had sex with non-regular and non-commercial partners in the last one year. The same high rates of sexual intercourse with high-risk groups were reported in a recent study of Gondar college students especially among the health officers group and in study done at Jimma (52,57).

Adequate knowledge on viral transmission and prevention is believed to be the key factor in fighting the epidemic. In our survey teachers' awareness in the use of condom as a protective measure for HIV transmission was low and misconception such as mosquito bite as a vehicle for viral transmission was common. These findings are consistent with similar studies done in Ethiopia; at Dire Dawa, Awassa, and Bahir Dar and Addis Ababa (39,43).

Perceived susceptibility is another most important factor for effective intervention. This is because; people who perceive themselves as susceptible for the disease might change their behavior earlier. A study carried out among Danish men showed that a significantly higher proportion of men who perceived themselves at risk for HIV infection changed their sexual practices than those who did not report risk factors (45). In a study among Ohio high school students, perceived vulnerability was as low as that of this study (27%). In this study, 27.1% of the respondents overall perceived themselves being at risk. Being female, being Amhara, Oromo or Tigrayan made them feel more at risk however, individuals who had positive attitude to VCT felt at a lesser risk.

Perhaps the most attractive strategy for a successful vaccine trial would be to enroll a community based population of sexually active persons who have similar incidence rates to the high-risk populations (78). If those at lower-risk are to be targeted for efficacy trials, community-based studies could be designed so that it would be helpful for planning intervention studies to allow targeting specific groups at high-risk for HIV-1 infection, such as STI clinic attendees (79).

Our data agree with those of a previous study (32, 82), which showed a high knowledge about vaccines. Similarly, comprehension on vaccines was also high in the studies reported from Uganda, Thailand, and USA (31,32,75,82).

Baseline data for commencement of clinical HIV vaccine trials is mandatory. Overall, the findings of this study demonstrate that awareness of vaccine (88.7%-98.6%) and AIDS vaccine development efforts were common and complement behavior change. Approximately 50.7% of subjects were willing to join a possible trial if they were asked. This result is consistent with the studies done in New York City, Uganda, Thailand and the United States of America (31,32,75,82). It is obvious that a number of preparatory steps must be taken prior to initiating such trials in Ethiopia (32,33,34). Most studies have demonstrated that subjects become willing because they believed that participation might protect them if the vaccine works. In other words, it may be that they are motivated by the desire to be protected even if

they know that protection is not guaranteed (32,82).

Those who were previously vaccinated and those who feel that vaccine is protective have negative attitude towards willingness to participate. On the other hand, those who perceive that vaccine is important and those who want a test for HIV had positive attitude for willingness to participate. The findings of HIV test acting as an incentive for willingness to participate and had been ever vaccinated as a barrier were in congruence with other HIV vaccine trials like those of Uganda, Thailand and the United States of America (32,34,35,75,82).

9. Strength of the study

- The study assessed behavioral determinants/risk factors for HIV infection using a standardized and structured questionnaire that can be used for trend analysis in the

future.

- The vaccine preparedness component of the study can serve as a baseline data.
- To tackle confounders logistic regression was used in analyzing the data.

10. Limitations of the study

- Measuring issues of sexual behavior is very difficult because of social desirability bias.
- The study is not representative because it was not done in the general population.
- Qualitative methods were not used.
- Some of the questionnaires were offending to a very few of the respondents.

11. Conclusion and Recommendations

In order to reduce the sexual transmission of HIV, consistent and correct use of condoms along with a relationship with only one faithful partner is a necessity. This was concluded because of the low condom use rate found on this study (68.8%). However, the best option is the availability of cheap, effective and safe HIV vaccines.

The present behavioral survey showed that there is a high-risk behavior among the respondents as manifested by having high number of non-regular non-commercial partners and commercial partners. Perceived susceptibility rate was found to be low. Although knowledge on vaccines was relatively high, willingness to participate in a possible future vaccine trial was not high enough. All these findings, coupled with the lower knowledge score of HIV/AIDS, signify a potentially high-risk situation for the spread of the disease.

Based on the findings of the study the following recommendations are made:

- 1) It appears that educational institutions are underutilized as a means of dissemination of information concerning AIDS. Therefore, strengthening the involvement of teachers in the AIDS prevention activities are an urgent task.
- 2) Behavioral cross-sectional surveys in the general population for tracking changes in sexual behavior should be periodically done.
- 3) Developing countries should establish their own national AIDS vaccine plans and initiatives.
- 4) Possible vaccine trials should include a vaccine educational program tailored to the information needs of that population.

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FAMILY HEALTH INTERNATIONAL (FHI)
HIV/AIDS/STD BEHAVIORAL SURVEILLANCE SURVEYS (BSS)
FOR USE WITH ADULT TARGET GROUPS AGED 15-49 HIGH SCHOOL TEACHERS

001 QUESTIONNAIRE IDENTIFICATION NUMBER |__|__|__|

002 CITY Addis Ababa

003 REGION Addis Ababa

004 SITE__ Addis Ababa

Introduction: “I’m working for the Department of Community health, AAU. We’re interviewing people here in [name of the school] in order to find out about people's HIV/AIDS and STD related knowledge, attitude, risk behavior and practice and also their knowledge on HIV vaccine and willingness to participate in HIV vaccine trial. The purpose of the study is to generate information necessary for the planning of appropriate interventions and to track on behaviors that are associated with HIV. Therefore; your honest and genuine participation by responding to the questions prepared is highly appreciated and credited in the national campaigns to the control of HIV/AIDS. Have you been interviewed in the past few weeks [or other appropriate time period] for this study? **IF THE RESPONDENT HAS BEEN INTERVIEWED DURING THIS ROUND OF BSS, DO NOT INTERVIEW THIS PERSON AGAIN.** Tell them you cannot interview them a second time, thank them, and end the interview. If they have not been interviewed before, continue:

Confidentiality and consent: “I’m going to ask you some very personal questions that some people find difficult to answer. Your answers are completely confidential. Your name will not be written on this form, and will never be used in connection with any of the information you tell me. You do not have to answer any questions that you do not want to answer, and you may end this interview at any time you want to. However, your honest answers to these questions will help us better understand what people think, say and do about certain kinds of behaviors. We would greatly appreciate your help in responding to this survey. The survey will take about XX minutes to ask the questions. Would you be willing to participate?”

1. Yes
2. No

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

Interviewer visit

	Visit 1	Visit 2	Visit 3
Date			
Interviewer			
Result			

Result codes: Completed 1; Respondent not available 2; Refused 3; Partially completed 4; Other 5.

005 INTERVIEWER: Code [____|____] Name _____

006 DATE OF INTERVIEW: __\ ____ \ ____

CHECKED BY SUPERVISOR: Signature _____ Date _____

Section 1: Background characteristics

No.	Questions and filters	Coding categories	Skip to
Q10 1	RECORD SEX OF THE RESPONDENT	MALE 1 FEMALE 2	
Q10 2	How old were you at your last birthday?	AGE IN COMPLETED YEARS [][] DON'T KNOW 88 <u>NO RESPONSE 99</u>	
Q10 3	What is your religion? CIRCLE ONE	ORTHODOX 1 CATHOLIC 2 PROTESTANT 3 MUSLIM 4 NO RELIGION 5 OTHERS (SPECIFY) _____ NO RESPONSE 99	
Q10 4	To which ethnic group do you belong?	AMHARA 1 OROMO 2 TIGREAN 3 GURAGE 4 OTHERS 5 NO RESPONSE 99	
Q10 5	What is the highest level of school you completed?	12 th COMPLETE 1 DIPLOMA HOLDER 2 DEGREE HOLDER 3 OTHERS 4	
Q10 6	How long have you lived here in Addis Ababa? (NAME OF COMMUNITY/TOWN NEIGHBOURHOOD/VILLAGE)	NUMBER OF YEARS [][] RECORD 00 IF LESS THAN 1 YEAR DON'T KNOW 88 NO RESPONSE 99	
Q10 7	How long have you worked in this school?	# OF YEARS WORKED [][] NO RESPONSE 99	

Q108	How much is your total family monthly income?	Birr [.....] DON'T KNOW 88 NO RESPONSE 99	
Q109	In the last 12 months have you been away from your home for more than one month altogether?	YES 1 NO 2 DON'T KNOW 88 NO RESPONSE 99	
Q110	During the last 4 weeks have you drunk alcohol? If yes , how often have you had drinks containing alcohol? (Alcohol includes like Tella, Tej, Arake, Beer) Would you say READ OUT CIRCLE ONE	Every day 1 At least once a week 2 Less than once a week 3 Never 4 DON'T KNOW 88 NO RESPONSE 99	
Q111	Some people have tried a range of different types of drugs. Which of the following, if any, have you tried? READ LIST	YES NO DK NR KHAT 1 2 88 99 SHISHA/GAYA 1 2 88 99 HASHISH 1 2 88 99 BENZENE 1 2 88 99 MANDRAX 1 2 88 99 COCAINE 1 2 88 99 CRACK 1 2 88 99	
Q112	Some people have tried injecting drugs using a syringe. Have you injected drugs in the last 12 months? DRUGS INJECTED FOR MEDICAL PURPOSES OR TREATMENT OF AN ILLNESS DO NOT COUNT	YES 1 NO 2 DON'T KNOW 88 NO RESPONSE 99	

Section 2: Marriage and live-in partnerships

No.	Questions and filters	Coding categories
Q201	Have you <i>ever</i> been married?	YES 1 NO 2 NO RESPONSE 99 →Q203

Q20 2	How old were you when you first married?	Age in years [__ __] DON'T KNOW 88 NO RESPONSE 99	
Q20 3	Are you <i>currently</i> married or living with a man/woman with whom you have a sexual relationship?	Currently married, living with spouse Currently married, living with other sexual partner Currently married, not living with spouse or any other sexual partner Not married, living with sexual partner Not married, not living with sexual partner NO RESPONSE	1 2 3 4 5 99
Q204	IF MARRIED: MEN: Do you have more than one wife?	YES 1 NO 2 NO RESPONSE 99	

Section 3: Sexual history: numbers and types of partners

Now I would like to ask you some questions that may be difficult and too personal to answer. However, like I said in the beginning your answers to these questions are confidential and will not be linked to you in anyway. The questions that will follow will all be about your sexual activity and partners.

No.	Questions and filters	Coding categories	Skip to
Q301	Some speak, as there are different types of sexual intercourse. What type of sexual intercourse do you know? CIRCLE 1 IF MENTIONED, 2 IF NOT MENTIONED	Y N 1. Vaginal 1 2 2. Anal 1 2 3. Oral 1 2 DON'T KNOW 88 NO RESPONSE 99	

Q302	Have you <u>ever</u> had sexual intercourse? [For the purpose of this survey,” sexual intercourse,” is defined as vaginal or anal sex].	YES 1 NO 2 NO RESPONSE 99	
Q303	At what age did you first have sexual intercourse? PROBE	AGE IN YEARS [][] DON'T KNOW 88 NO RESPONSE 99	
Q304	Have you had sexual intercourse in the last 12 months?	YES 1 NO 2 NO RESPONSE 99	
Q305	<p><i>For WOMEN:</i> Think about the male sexual partners you've had in the last 12 months.</p> <p><i>For MEN:</i> Think about the female sexual partners you've had in the last 12 months.</p> <p>How many were:</p> <ul style="list-style-type: none"> - Your spouse(s) or live-in sexual partners (“regular” partners) - Partners whom you paid to have sex with “Commercial” - Sexual partners that you are not married to and have never lived with and did not pay (“non-regular” partners) –DO NOT INCLUDE CURRENT SPOUSE(S) OR LIVE-IN SEXUAL PARTNERS) - Sexual partner with whom you have had a relation for more than 12 months, but is not your spouse or live-in partner 	<p>If the respondent have no regular, commercial, non-regular sexual partners write ‘00’</p> <p>REGULAR [][] DON'T KNOW 88 NO RESPONSE 99</p> <p>COMMERCIAL [][] DON'T KNOW 88 NO RESPONSE 99</p> <p>NON-REGULAR [][] DON'T KNOW 88 NO RESPONSE 99</p> <p>OTHER PARTNER [][] DON'T KNOW 88 NO RESPONSE 99</p>	

Section 4: Male and female condoms

No.	Questions and Filters	Coding categories	Skip to
Q401	Have you and a sexual partner <i>ever</i> used a condom? (The respondent may not have used a condom with partners in sections 4-6, but may have used a condom at some other time in the past.)	YES 1 NO 2 DON'T KNOW 88 NO RESPONSE 99	
Q402	Do you know any place or person where you can obtain condoms?	YES 1 NO 2 DON'T KNOW 88 NO RESPONSE 99	
Q403	Which places or persons do you know where you can obtain condoms? PROBE Any others? CIRCLE 1 IF MENTIONED, 2 IF NOT MENTIONED	Yes No 1. Shop 1 2 2. Pharmacy 1 2 3. Market 1 2 4. Private clinic 1 2 5. Health center/Hospital 1 2 6. Family planning center 1 2 7. Youth centers /clubs 1 2 8. Bar/guest house/hotel 1 2 9. Peer educator 1 2 10. School 1 2 11. Friend 1 2 12. Family 1 2 13. Street vendors 1 2 14. DKT 15. Sex worker 16. OTHER _____ 99. NO RESPONSE	
FILTER: ASK Q404 FOR THOSE WHO SAY YES FOR Q302			

Q404	During the past 12 months, did you ever have sexual intercourse <i>without</i> using a condom with any commercial sexual partner or any other sexual partner who you have never lived with and are not married to?	YES	1	
		NO	2	
		DON'T KNOW	88	
		NO RESPONSE	99	

Section 5: Vaccine Trial preparedness for participation

I would like to ask you a few questions about vaccines so that we may understand what you know about how they work

Vaccine knowledge and attitudes

No.	Questions and filters	Coding categories	Skip to
Q501	What do you think a vaccination (immunization) is? A. Protects from disease: B. Cures from disease:	YES	1
		NO	2
		DON'T KNOW	88
		NO RESPONSE	99
		YES	1
		NO	2
		DON'T KNOW	88
		NO RESPONSE	99

Q 502	Please tell me whether you think the following statements are correct about vaccines in general a. Vaccines are important for good health b. Vaccines can cure disease c. Vaccines can prevent disease d. Vaccines help the body's defense system e. Vaccines can cause reactions such as fever, soreness, or itching that can last for a few days f. Both children and adults can receive vaccines	<table border="0"> <tr> <td></td> <td>Yes</td> <td>No</td> <td>DN</td> </tr> <tr> <td>NR</td> <td></td> <td></td> <td></td> </tr> <tr> <td>1</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>9</td> <td></td> <td></td> <td></td> </tr> <tr> <td>1</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>9</td> <td></td> <td></td> <td></td> </tr> <tr> <td>1</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>9</td> <td></td> <td></td> <td></td> </tr> <tr> <td>1</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>9</td> <td></td> <td></td> <td></td> </tr> <tr> <td>1</td> <td>1</td> <td>2</td> <td>8</td> </tr> <tr> <td>9</td> <td></td> <td></td> <td></td> </tr> </table>		Yes	No	DN	NR				1	1	2	8	9				1	1	2	8	9				1	1	2	8	9				1	1	2	8	9				1	1	2	8	9				
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Q503	Have you ever been vaccinated?	<table border="0"> <tr> <td></td> <td>YES</td> <td>1</td> </tr> <tr> <td></td> <td>NO</td> <td>2</td> </tr> <tr> <td></td> <td>DON'T KNOW</td> <td>88</td> </tr> <tr> <td></td> <td>NO RESPONSE</td> <td></td> </tr> <tr> <td>99</td> <td></td> <td></td> </tr> </table>		YES	1		NO	2		DON'T KNOW	88		NO RESPONSE		99																																				
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Q504	Have you ever heard of a study that will test a vaccine to prevent AIDS?	<table border="0"> <tr> <td></td> <td>YES</td> <td>1</td> </tr> <tr> <td></td> <td>NO</td> <td>2</td> </tr> <tr> <td></td> <td>DON'T KNOW</td> <td>88</td> </tr> <tr> <td></td> <td>NO RESPONSE</td> <td>99</td> </tr> </table>		YES	1		NO	2		DON'T KNOW	88		NO RESPONSE	99																																					
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Q505	Do you think that an AIDS vaccine study would be for people who are HIV infected?	<table border="0"> <tr> <td></td> <td>YES</td> <td></td> </tr> <tr> <td>1</td> <td></td> <td></td> </tr> <tr> <td></td> <td>NO</td> <td></td> </tr> <tr> <td>2</td> <td></td> <td></td> </tr> <tr> <td></td> <td>DON'T KNOW</td> <td></td> </tr> <tr> <td>88</td> <td></td> <td></td> </tr> <tr> <td></td> <td>NO RESPONSE</td> <td></td> </tr> <tr> <td>99</td> <td></td> <td></td> </tr> </table>		YES		1				NO		2				DON'T KNOW		88				NO RESPONSE		99																											
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Q506	Do you think that an AIDS vaccine study would be for people who are HIV uninfected?	<table border="0"> <tr> <td></td> <td>YES</td> <td></td> </tr> <tr> <td>1</td> <td></td> <td></td> </tr> <tr> <td></td> <td>NO</td> <td></td> </tr> <tr> <td>2</td> <td></td> <td></td> </tr> <tr> <td></td> <td>DON'T KNOW</td> <td></td> </tr> <tr> <td>88</td> <td></td> <td></td> </tr> <tr> <td></td> <td>NO RESPONSE</td> <td></td> </tr> <tr> <td>99</td> <td></td> <td></td> </tr> </table>		YES		1				NO		2				DON'T KNOW		88				NO RESPONSE		99																											
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Q507	If you were asked today to participate in a study to find out if a new test vaccine can prevent AIDS would you agree?	1 2	YES NO	
Q508	If you participated in a test of a vaccine you would have your blood tested for HIV every few months and you would be told your results. Would you be willing to that?	1 2 88 99	YES NO DON'T KNOW NO RESPONSE	
Q509	The vaccine injections you receive in the study might sometimes cause reactions such as fever, vomiting, etc . Would you be still willing to participate if the injections might cause any of the above reactions?	1 2 88 99	YES NO DON'T KNOW NO RESPONSE	
Q510	Would you participate in a study of an AIDS vaccine if it means that you still needed to behave safely to protect yourself from getting AIDS?	1 2 88 99	YES NO DON'T KNOW NO RESPONSE	
Q511	Do you think that if you participated in an AIDS vaccine study people will think that you have AIDS?	1 2 88 99	YES NO DON'T KNOW NO RESPONSE	

Section 6: Sexual history: regular partners

No.	Questions and Filters	Coding categories	Skip to
Q601	<p>FILTER: GO TO Q 305 IF RESPONDENT <u>HAD SEX</u> WITH REGULAR PARTNER DURING PAST 12 MONTHS WITH REGULAR PARTNER CONTINUE TO Q 602</p> <p style="text-align: center;">↓</p>	<p>IF RESPONDENT <u>DID NOT</u> [] HAVE SEX WITH REGULAR → PARTNER DURING PAST 12 MONTHS SKIP TO Q701</p>	→Q701
Q602	<p>Think about your most recent regular sexual partner. How many days did you have sexual intercourse with this person over the last 30 days?</p> <p>[REGULAR PARTNER INCLUDES SPOUSE OR LIVE-IN SEXUAL PARTNER] *See definition for sexual intercourse</p>	<p>[][] Number of days</p> <p>88 DON'T KNOW</p> <p>99 NO RESPONSE</p>	
Q603	<p>The last time you had sex with a regular partner, did you and your partner use a condom?</p> <p>*See definition for regular partner</p>	<p>1 YES</p> <p>2 NO</p> <p> DON'T</p> <p>REMEMBER 88</p> <p> NO</p> <p>RESPONSE 99</p>	→Q605

Q604	Who suggested condom use that time? CIRCLE ONE	Myself 1 My partner 2 Joint decision 3 DON'T KNOW 8 NO RESPONSE 9	
Q605	Why didn't you and your partner use a condom that time? CIRCLE 1 IF MENTIONED, 2 IF NOT MENTIONED	available 1. Not Y N 1 2 2. Too expensive 1 2 3. Not comfortable initiating 1 2 4. Partner objected 1 2 5. In a hurry 1 2 6. Embarrassed to buy or ask for 1 2 7. Used other contraceptive 1 2 8. Didn't think it was necessary 1 2 9. Didn't think of it 1 2 10. Allergy/ Itching 1 2 11. I don't like it 1 2 12. I trust my partner 1 2 13. I was drunk 1 2 14. Don't trust condom ass they transmit HIV 1 2 15. Due to lack of knowledge of applying condom 1 2 16. Due to frequent breakage of condom 1 2 17. It reduces my sexual pleasure 1 2 18. Desire to conceive 1 2 19. Other _____ 88. DON'T KNOW 99. NO RESPONSE	

Section 7: Sexual history: commercial partners

No.	Questions and Filters	Coding categories	Skip to
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Q701	FILTER: GO TO Q305 IF RESPONDENT <u>HAD</u> SEXUAL INTERCOURSE WITH A COMMERCIAL PARTNER IN LAST 2 MONTHS CONTINUE TO Q 702↓	IF RESPONDENT <u>DID NOT HAVE</u> SEXUAL INTERCOURSE WITH A COMMERCIAL PARTNER IN LAST 12 MONTHS GO TO Q801	<input type="checkbox"/> → →Q801
Q702	The last time you had sex with a commercial partner, did you and your partner use a condom?	YES 1 NO 2 DON'T KNOW 88 NO RESPONSE 99	→Q704
Q703	Who suggested condom use that time? CIRCLE ONE	Myself 1 My partner 2 Joint decision 3 DON'T KNOW 88 NO RESPONSE 99	

Section 8: Sexual history: non-regular non-paying sexual partners

	Questions and Filters	Coding categories	Skip to
Q801	<p>FILTER: GO TO Q305</p> <p>IF RESPONDENT HAD NON-REGULAR NON-COMMERCIAL SEX PARTNER DURING <u>LAST 12 MONTHS</u> CONTINUE TO Q802</p> <p>↓</p>		
Q802	<p>Think about your most recent non-regular, non-commercial sexual partner. How many days did you have sexual intercourse with this person over the last 30 days?</p>	<p>Number of days</p> <p> </p> <p>88</p> <p>DON'T KNOW</p> <p>NO RESPONSE</p> <p>99</p>	
Q803	<p>The last time you had sex with non-regular, non-commercial partner, did you and your partner use a condom?</p>	<p>YES 1</p> <p>NO 2</p> <p>DON'T KNOW 88</p> <p>NO RESPONSE 99</p>	<p>→Q805</p>
Q804	<p>Who suggested condom use that time?</p> <p>CIRCLE ONE</p>	<p>Myself 1</p> <p>My partner 2</p> <p>Joint decision 3</p> <p>DON'T KNOW 88</p> <p>NO RESPONSE 99</p>	

Q805	Why didn't you and your partner use a condom that time? CIRCLE 1 IF MENTIONED, 2 IF NOT MENTIONED	1. Not available	Y N 1	
		2. Too expensive	2 1	2
		3. Not comfortable initiating	1 2	
		4. Partner objected	1 2	
		5. In a hurry	1	
		6. Embarrassed to buy or ask for	2 1	
		7. Used other contraceptive	2	
		8. Didn't think it was necessary	1 2	
		9. Didn't think of it	1	
		10. Allergy/ Itching	2	
		11. I don't like it	1	
		12. I trust my partner	2	
		13. I was drunk	1	
		14. Don't trust condom ass they transmit HIV	2 1	
		15. Due to lack of knowledge of applying condom	2 1	
		16. Due to frequent breakage of condom	2 1	2
		17. It reduces my sexual pleasure	1	
		18. Desire to conceive	2	
		19.		
		Other _____	1	
		88. DON'T KNOW	2	
		99. NO RESPONSE		
			1	
			2	
	1			
	2			
	1			
	2			
	1			
	2			

Section 9: Sexual history: Sexual partners with whom you have had a relation for more than 12 months, but is not your spouse or live-in partner

No.	Questions and Filters	Coding categories	
Q901	<p>FILTER: GO TO Q305</p> <p>IF RESPONDENT <u>HAD</u> NON-REGULAR NON-COMMERCIAL SEX PARTNER DURING <u>LAST 12 MONTHS</u> CONTINUE TO Q902 ↓</p>	<p>IF RESPONDENT <u>DID NOT</u> HAVE NON-REGULAR NON-COMMERCIAL SEX PARTNER DURING <u>LAST 12 MONTHS</u> SKIP TO Q1001</p>	→ Q907
Q902	<p>Think about your most recent non-regular, non-commercial sexual partner. How many days did you have sexual intercourse with this person over the last 30 days?</p>	<p>Number of days [][]</p> <p>DON'T KNOW 88 NO RESPONSE 99</p>	
Q903	<p>The last time you had sex with non-regular, non-commercial partner, did you and your partner use a condom?</p>	<p>YES 1 NO 2 DON'T KNOW 88 NO RESPONSE 99</p>	→ Q905 → Q907
Q904	<p>Who suggested condom use that time?</p> <p>CIRCLE ONE</p>	<p>Myself 1 My partner 2 Joint decision 3 DON'T KNOW 88 NO RESPONSE 99</p>	→ Q906 → Q90 6 → Q906 → Q906 → Q906

Q907	<p>(Ask of men):</p> <ul style="list-style-type: none"> – We’ve just talked about your female sexual partners. Have you ever had any male sexual partners? – Have you had sexual intercourse with any of your male partners in the past 12 months? (Sexual intercourse defined as penetrative anal sex) – How many male partners have you had anal intercourse with in the last 12 months? 	<p style="text-align: right;">YES 1 NO 2 NO RESPONSE 99</p> <p style="text-align: right;">YES 1 NO 2 NO RESPONSE 99</p> <p>Male partners [__ __] DON’T KNOW 88 NO RESPONSE 99</p>	
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Section 10: STDs

No.	Questions and filters	Coding categories	Skip to
Q100 1	Have you ever heard of diseases that can be transmitted through sexual intercourse?	YES 1 NO 2 NO RESPONSE 99	

<p>Q100 2</p>	<p>Can you describe any symptoms of STDs in women? Any others?</p> <p>DO <u>NOT</u> READ OUT THE SYMPTOMS</p> <p>CIRCLE 1 FOR ALL MENTIONED.</p> <p>CIRCLE 2 FOR ALL <i>NOT</i> MENTIONED.</p> <p>MORE THAN ONE ANSWER IS POSSIBLE.</p>	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 80%;"></th> <th style="width: 10%; text-align: center;">Yes</th> <th style="width: 10%; text-align: center;">No</th> </tr> </thead> <tbody> <tr> <td>1. ABDOMINAL PAIN</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>2. GENITAL DISCHARGE</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>3. FOUL SMELLING DISCHARGE</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>4. BURNING PAIN ON URINATION</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>5. GENITAL ULCERS/SORES</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>6. SWELLINGS IN GROIN AREA</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>7. ITCHING</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>8. OTHER _____</td> <td></td> <td></td> </tr> <tr> <td>99 NO RESPONSE</td> <td></td> <td></td> </tr> </tbody> </table>		Yes	No	1. ABDOMINAL PAIN	1	2	2. GENITAL DISCHARGE	1	2	3. FOUL SMELLING DISCHARGE	1	2	4. BURNING PAIN ON URINATION	1	2	5. GENITAL ULCERS/SORES	1	2	6. SWELLINGS IN GROIN AREA	1	2	7. ITCHING	1	2	8. OTHER _____			99 NO RESPONSE			
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8. OTHER _____																																	
99 NO RESPONSE																																	
<p>Q100 3</p>	<p>Can you describe any symptoms of STDs in men? Any others?</p> <p>DO <u>NOT</u> READ OUT THE SYMPTOMS</p> <p>CIRCLE 1 FOR ALL MENTIONED.</p> <p>CIRCLE 2 FOR ALL <i>NOT</i> MENTIONED.</p> <p>MORE THAN ONE ANSWER IS POSSIBLE</p>	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 80%;"></th> <th style="width: 10%; text-align: center;">Yes</th> <th style="width: 10%; text-align: center;">No</th> </tr> </thead> <tbody> <tr> <td>1. GENITAL DISCHARGE</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>2. BURNING PAIN ON URINATION</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>3. GENITAL ULCERS/SORES</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>4. SWELLINGS IN GROIN AREA</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>5. OTHER _____</td> <td></td> <td></td> </tr> <tr> <td>99. NO RESPONSE</td> <td></td> <td></td> </tr> </tbody> </table>		Yes	No	1. GENITAL DISCHARGE	1	2	2. BURNING PAIN ON URINATION	1	2	3. GENITAL ULCERS/SORES	1	2	4. SWELLINGS IN GROIN AREA	1	2	5. OTHER _____			99. NO RESPONSE												
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5. OTHER _____																																	
99. NO RESPONSE																																	

Section11: Knowledge, opinions, and attitudes

No.	Questions and filters	Coding categories	Skip to
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Q1101	Have you ever heard of HIV or the disease called AIDS?	YES 1 NO 2 NO RESPONSE 99	→ Q1201
Q1102	Can people protect themselves from HIV, the virus that causes AIDS, by using a condom correctly every time they have sex?	YES 1 NO 2 DON'T KNOW 88 NO RESPONSE 99	
Q1103	Can a person get the HIV from Mosquito bites?	YES 1 NO 2 DON'T KNOW 88 NO RESPONSE 99	
Q1104	Can a person get the HIV from eating raw meat prepared by a person infected by HIV?	YES 1 NO 2 DON'T KNOW 88 NO RESPONSE 99	
Q1105	Can a person get the HIV by getting injections with a needle that was already used by someone else?	YES 1 NO 2 DON'T KNOW 88 NO RESPONSE 99	
Q1106	Can people protect themselves from the HIV by having one uninfected faithful sex partner? (Excluding other transmission routes i.e. blood transfusion, contaminated sharp instruments)	YES 1 NO 2 DON'T KNOW 88 NO RESPONSE 99	
Q1107	Can people protect themselves from the HIV by abstaining from sexual intercourse? (Excluding other transmission routes i.e. blood transfusion, contaminated sharp instruments)	YES 1 NO 2 DON'T KNOW 88 NO RESPONSE 99	

Stigma and Discrimination

NO.	Questions and filters	Coding categories Skip to	
Q110 8	If a relative of yours became ill with HIV, the virus that causes AIDS, would you be willing to care for him/her in your household?	YES 1 NO 2 DON'T KNOW 88 NO RESPONSE 99	
Q110 9	If a worker in this school has HIV but is not sick, should he or she be allowed to continue working in the school?	YES 1 NO 2 DON'T KNOW 88 NO RESPONSE 99	

Personal Risk Perception

Q1110	What are your chances of getting infected with HIV?	<p>No chance 1</p> <p>Low 2</p> <p>Moderate 3</p> <p>High 4</p> <p>DON'T KNOW 88</p> <p>NO RESPONSE 99</p>	<p>→Q1111</p> <p>→Q1111</p> <p>→Q1112</p> <p>→Q1112</p>
Q1111	<p>If your response is NO or low, why?</p> <p>PROBE MORE THAN ONE ANSWER IS POSSIBLE CIRCLE 1IF MENTIONED, 2 IF NOT MENTIONED</p>	<p>1. I never had sexual contact</p> <p>2. Abstained from sexual intercourse</p> <p>3. I trust my sexual partner</p> <p>4. No injection with unsterile needles</p> <p>5. I always use condom</p> <p>6. Healthy; no contact with HIV infected person(s)</p> <p>7. OTHER _____</p> <p>DON'T KNOW</p> <p>NO RESPONSE</p> <p>88</p> <p>99</p>	<p>Yes</p> <p>No</p> <p>1</p> <p>2</p> <p>1 2</p> <p>1 2</p> <p>1 2</p> <p>1 2</p> <p>1 2</p> <p>1 2</p> <p>1 2</p> <p>1 2</p>

Q1112	If your answer is MODERATE or HIGH, why? CIRCLE 1 IF MENTIONED, 2 IF NOT MENTIONED	1. I had sexual contact with HIV positive partner	Yes	
		2. I had sexual contact with out condom	No	
		3. I had sex with multiple sexual partners	1	2
		4. I had sex with commercial partner	1	2
		5. Condom breakage	1	2
		6. OTHER _____	1	2
		DON'T KNOW 88		
		NO RESPONSE 99		

Section 11: Knowledge, opinions, and attitudes (continued)

Q1113	Can a pregnant woman infected with HIV or AIDS transmit the virus to her unborn child?	YES	1
		NO	2
		DON'T KNOW	88
		NO RESPONSE	99
Q1114	Can a woman with HIV or AIDS transmit the virus to her newborn child through breastfeeding?	YES	1
		NO	2
		DON'T KNOW	88
		NO RESPONSE	99

Section 12: Exposure to interventions

[A section on exposure to interventions can be added here if the target group has already received some kind of HIV/AIDS/STD prevention interventions. Specific questions designed to assess exposure would need to be developed locally.]

No.	Questions and filters	Coding categories	Skip to
Q120 1	Have you heard any messages about HIV/AIDS on radio in the last 12 months?	YES 1 NO 2 DON'T KNOW 88 NO RESPONSE 99	→Q12 02

Q120 2	Have you seen any messages about HIV/AIDS on television in the last 12 months?	YES 1 NO 2 DON'T KNOW 88 NO RESPONSE 99	
Q120 3	Have you seen or read any articles about HIV/AIDS in the print press (news papers/ magazines, etc.) in the last 12 months?	YES 1 NO 2 DON'T KNOW 88 NO RESPONSE 99	
CARE AND SUPPORT			
Q120 4	If you have a member of your family sick for a long time or an AIDS patient, how would you take care in handling body fluids like diarrhea, vomit, sputum and blood? READ OUT MORE THAN ONE ANSWER IS POSSIBLE CIRCLE 1IF MENTIONED, 2 IF NOT MENTIONED	Yes No No special care 1 2 Wash hands after care 1 2 Use plastic gloves 1 2 Ask someone else to help 1 2 OTHERS _____ NO RESPONSE 99	
Q120 5	If a VCT (voluntary counseling and testing) service is available to you will you be willing to use it?	YES 1 NO 2 DON'T KNOW 88 NO RESPONSE 99	

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

Í,lp ÿLZ xpNtRÂ>ÂL
 lx=C xY vþ x=DS XÂ ltlÃ† yxÆ§zR b>-ãC oRuT bMKNÃTnT y,«QsùTN ytlÃ† ÆEH¶ÃT Iÿ_ÂT yqrb
 m«YQ

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የፍቃድኝነት ማረጋገጫ ቅጽ

001 የመጠይቅ መለያ ቁጥር [— / — / —]

002 ከተማ አዲስ አበባ

003 ክልል አዲስ አበባ

004 መረጃ የሚሰበሰብበት ልዩ ቦታ _____ አዲስ አበባ

መግቢያ የምሥራዊ በአ.አ. ዩኒቨርሲቲ የሕብረተሰብ ጤና ትምህርት ክፍል ሥር ነው። እዚህ የምንጠይቀው (የት/ቤቱን ስም ጠቅሶ) ስለ ኤች አይቪ/ኤድስና የአባላዘር በሽታዎች ስርጭት ሕዝቡ ያለውን ዕውቀት፣ አመለካከት፣ አደጋ ላይ ሊያደርሱ የሚችሉትን ባህሪያትንና ልማዶችን ለማጥናት ነው።

ከዚህ በፊት ከተጠየቁ እንደገና አይጠየቁም ስለዚህ ከምስጋና ጋር አሰናብታለሁ። ካልተሳተፉ ግን የሚቀርብልዎትን ጥያቄ በጥሞና ሁሉንም እንብበው እንዲመልሱልን በትህትና እጠይቃለሁ። (እባኩን ለሁሉም ጥያቄዎች መልስ በመስጠት ይተባበሩን) ።

የዚህ ጥናት ዋና ዓላማ በኤች አይቪ/ኤድስ ሥርጭት ምክንያት ለሚጠቀሱ የተለያዩ የሕብረተሰብ ባህሪያት መረጃ ለመሰብሰብና ስለ ኤች አይ ቪ ክትባት ያላቸውን ግንዛቤና በኤች አይ ቪ ክትባት ጥናት ላይ ለመካፈል ያላቸው ፍላጎት ከታወቀ በኋላ ለወደፊት ተገቢ እቅድ በመንደፍ መከላከል እንደሚቻል ነው።

ስለዚህ በእወኔትና በቅንነት በሚሰጡን መልስ ያደረጉት ተቆርቆሪነት ለጥናቱ ወሳኝ ከመሆኑም በላይ ብሔራዊ የኤች አይቪ/ኤድስ ቁጥጥርና መከላከል ዘመቻ ለችግሩ መፍትሔ ለመፈለግ እና ለወደፊት ተገቢ እቅድ በመንደፍ መከላከል እንዲቻል ነው።

xhùN yGL ÆEH¶ãN ytmlkt _Ãq½ãCN xqRBLã-ìhù”” bm«YqÛ §Y SMã wYM yXRiN ¥NnT y_gLI ¥N¾¼¥M xYnT ngr
 xY«qSM wYM xYÃÃZM”” bm«YqÛ wQT mmlS y¥YfLgùTN ¥N¾¼¥NM xYnT _Ãq½ mtý wYM b¥N¾¼¥M sxT
 ¥□r_ YC§ìù”” çñM GN y,s«ùN mr© wdðT Slb>-ý I_drgý ¥N¾¼¥M xYnT KTTL «q>-ý y_§ Slçn bQD_Ã
 I_ÃDrGùLN TBBR MSUÂCN kLB ymn= ný”” m«YqÛ k30 XSk 45 dqEÝ lpwSD YC§L bzbH _ÂT IY mútF
 YfLUìù?

mLsù xã kçn% wd,q_ly gI XIF

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ፍቃድኝነቱን ያረጋገጠው መረጃ ሰብሳቢ ፊርማ _____

የመረጃ ሰብሳቢው የጉብኝት ስሌዳ

	ጉብኝት 1	ጉብኝት 2	ጉብኝት 3
ቀን			
መረጃ ሰብሳቢ			
ወጤት			

ወጤት። የተጠናቀቀ 1 – ተጠያቂው አልተገኘም 2 – የተቃወመ 3 – በከፊል የተመለሰ 4 – ሌላ - _____5

005 የመረጃ ሰብሳቢው መለያ ቁጥር[— / —] ሥም _____

006 መጠይቁ የተካሄደበት ቀን____/____/____

የተቆጣጣሪው ፊርማ_____ ስም_____ ቀን_____

ተ.ቁ	መጠይቅ	መልስ	ይለፍ
101	የተጠያቂው የታ	ወንድ 1 ሴት 2	
102	ዕድሜዎ ስንት ነው?	ተቀራራቢ ዕድሜ ገምተህ ሙላ ዕድሜ በሙሉ ዓመት [—/—] አላዉቅም 88 መልስ የለም 99	
103	ሐይማኖትዎ ምንድነው? (ምርጫዎቹ ይነበቡ) አንድ መልስ ብቻ ይከበብ	እርቶዶክስ ክርስቲያን 1 ካቶሊክ 2 ፕሮቴስታንት 3 እስልምና 4 ሃይማኖት የለኝም 5 ሌላ ይገለጽ 6 መልስ የለም 99	
104	ብሄረሰብዎ ምንድነው?	አማራ 1 አሮሞ 2 ትግራይ 3 ጉራጌ 4 ሌላ ይገለጽ 5 መልስ የለም 99	
105	ያጠናቀቁት ከፍተኛ የትምህርት ደረጃ እስከ ስንተኛ ክፍል ነው? አንዱን ምረጥ	12ኛ ክፍል ያጠናቀቀ 1 ዲፕሎማ ያለው 2 ዲግሪ ያለው 3 ሌላ ይገለጽ 4	
106	እዚህ አዲስ አበባ ስንት ዓመት ኖረዎል?	አመታት በቁጥር [—/—] ከአንድ ዓመት በታች ከሆነ 00 አላዉቅም 88 መልስ የለም 99	
107	እዚህ ት/ቤት ስንት ዓመት ሰርተዋል?	አመታት በቁጥር [—/—] አላዉቅም 88 መልስ የለም 99	
108	አጠቃላይ የግል የወር ገቢዎ ምን ያህል ነው?	መጠን በብር [—/—] አላዉቅም 88 መልስ የለም 99	
109	ባለፈው 12 ወራት በጠቅላላው ከአንድ ወር በላይ ከቤትዎ ውጪ ርቀው ቆይተው ያዉቃሉ?	አዎን 1 የለም 2 አላዉቅም 88 መልስ የለም 99	
110	ባለፉት 4 ሳምንታት የአልኮል መጠጥ ጠጥተው ያዉቃሉ?አዎን ካሉ አወሳሰድዎ እንዴት ነበር? (ጠላ፣ ጠጅ፣ ቢራንና የመሳሰሉትንም ይጨምራል) ዝርዝሩ ይነበብላቸው አንዱን ብቻ ምረጡ።	በየቀኑ 1 búMNT xNÁ 2 3 búMNT kxND gþz። Áns 4 88 ምንም /በጭራሽ አላዉቅም 99 መልስ የለም	
111	አንዳንድ ሰዎች የተለያዩ እፅ ይወስዳሉ እርስዎ ከዚህ በፊት ከተጠቀሙ የትኛውን አይነት እፅ ወስደዉ ያዉቃሉ? ዝርዝሩ ይነበብላቸው	አዎን የለም አላዉቅም መ የለም ጫት 1 2 88 99 ሺሻ/ጋያ 1 2 88 99 ሀሺሽ 1 2 88 99 ቤንዚን 1 2 88 99 ማንድክስ 1 2 88 99 ኮኬይን 1 2 88 99 ክራክ 1 2 88 99	

112	አንዳንድ ሰዎች በመርፌ አደንዛዥ እፅ ይወስዳሉ ባለፉት 12 ወራት እርስዎ በዚህ ተጠቅመዉ ያዉቃሉ? (ለህክምና በመርፌ የሚሰጥ መድሀኒትን አይጨምርም)	አዎን የለም አላዉቅም መልስ የለም	1 2 88 99	
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KFL hùlT##yUBÒÂ xBrý Sl,ñ.,T ^d³/4 yqrb m«YQ

ተ.ቁ	መጠይቅ	መልስ	ይለፍ
201	ከዚህ በፊት ትዳር ይዘዉ ያዉቃሉ?	አዎን አላገባሁም መልስ የለም	1 2 99
202	በመጀመሪያ ትዳር ሲይዙ እድሜዎ ስንት ነበር?	ዕድሜ በዓመት አላዉቅም መልስ የለም	[—/—] 88 99
203	አሁን በትዳር ወይም ከግብረ ስጋ ለደኛዎ ጋር እየኖሩ ነዉ?	አሁን በትዳር ላይ ነኝ አብረን እንኖራለን አሁን በትዳር ላይ ነኝ ግን ባለቤቴ ካልሆነ ሰዉ ጋር እኖራለሁ አሁን ትዳር አለኝ ግን ለብቻዬ እኖራለሁ ትዳር የለኝም ግን ከግብረስጋ ለደኛ ጋር እኖራለሁ ትዳር የለኝም ለብቻዬ ነዉ የምኖረዉ መልስ የለም	1 2 3 4 5 99
204	ÆITÄR kçnù ከአንድ በላይ ሚስት አለዎት?	አዎን yIM mLS yIM	1 2 99

KFL 3##yGBr SU GNβùnT ጥK” yGBr SU GNβùnT ^d³/4 xYnTÁ B²T

አሁን በጣም የግል የሆነ ጥያቄ እጠይቅዎታለሁ። ምንአልባት ለመመለስ ይከብድ ይሆናል ነገር ግን ቀደም ብዬ እንደነገርኩዎት በፍፁም በምስጢር ይያዛል።
የሚቀጥሉትን ጥያቄዎች ስለእርስዎ የግብረ ስጋ ግንኙነት ባህሪና በዚህ ግንኙነት ዉስጥ ስላሉዎት ለደኛዎ ይሆናል።

ተ.ቁ	መጠይቅ	መልስ	ይለፍ
301	ሰዎች የተለያዩ የግብረስጋ ግንኙነት እንዳለ ይናገራሉ። እርስዎ ስንት አይነት የግብረስጋ ግንኙነት እንዳለ ስምተው ያዉቃሉ? ከተጠቀሰ ቁጥር 1 ካልተጠቀሰ ቁጥር 2ን አክብብ።	አዎን የለም በሌት ብልት የሚፈፀም በግብረ ሰዶም በአፍ የሚፈፀም አላዉቅም መልስ የለም	1 2 1 2 1 2 1 2
302	የግብረ ስጋ ግንኙነት አድርገዉ ያዉቃሉ? ለዚህ ጥናት ሲባል የግብረ ስጋ ግንኙነት ግለት በሌት ብልት በኩል ወይም በግብረ ሰዶም የሚፈፀም ግንኙነት መሆኑ ይታወቅ።	xāN መልስ የለም	1 99
303	ለመጀመሪያ ጊዜ የግብረ ስጋ ግንኙነት በስንት ዓመትዎ ጀመሩ? ደጋግመህ አጥብቀህ ጠይቅ	ዕድሜ በዓመት አላዉቅም መልስ የለኝም	[—/—] 88 99
304	ባለፉት 12 ወራት የግብረ ስጋ ግንኙነት አድርገዉ ነበርን?	አዎን አላደረሱም መልስ የለም	1 2 99

<p>305</p> <p>ባለፉት 12 ወራት ውስጥ ስለነበርዎት የሴት የግብረሰጋ ግንኙነት ለደኛ/ለደኛች አስቡ።</p> <ul style="list-style-type: none"> የትዳር ወይም አብረው የኖሩት የግብረሰጋ ግንኙነት ለደኛ ብዛት ስንት ነው? (መደበኛ የግብረ ሰጋ ግንኙነት ለደኛ) በገንዘብ ክፍያ የፈፀሙት የግብረ ሰጋ ግንኙነት ለደኛ ብዛት ስንት ነው? ከመደበኛ / ከጋብቻ ወይም ከገንዘብ ክፍያ ውጭ የፈፀሙት የግብረ ሰጋ ግንኙነት ለደኛ ብዛት ስንት ነው? (yTÄR ^d¼N wYM xBry y,ñ□TN s²TN XÂ w%oT b§Y yöy GNßùnTN xY=MRM) ሌላ ከ12 ወራት በላይ አብረው የቆዩት/ የቆዩአቸው ሴት የግብረ ሰጋ ለደኛ/ለደኛች ብዛት ስንት ነው? (ባለቤትዎን ወይም አብረው የኖሩትን የግብረ ሰጋ ግንኙነት ለደኛን አይጨምርም) 	<p>MNM yIYM µlù 00 Yäs</p> <p>መደበኛ በቁጥር [—/—] አላውቅም 88 መልስ የለም 99</p> <p>በገንዘብክፍያ በቁጥር [—/—] አላውቅም 88 መልስ የለም 99</p> <p>ከመደበኛ ወይም ከገንዘብ ክፍያ ውጭ በቁጥር [—/—] አላውቅም 88 መልስ የለም 99</p> <p>ከ12 ወራት በላይ የቆዩ(ከጋብቻና ከገንዘብ ክፍያ ውጭ) በቁጥር [—/—] አላውቅም 88 መልስ የለም 99</p>	
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KFL 4''' ywNDÁ ys²T ÷NiMN btmlkt

ተ.ቁ	መጠይቅ	መልስ	ይለፍ
401	<p>ከዚህ በፊት በማናቸውም ወቅት ኮንዶም ተጠቅመው ያዉቃሉ?</p> <p>(ተሳታፊ ከመደበኛ የግብረ ሰጋ ግንኙነት ለደኛቻቸው ጋር ኮንዶም ላይጠቀሙ ይችላሉ ነገር ግን ከዚህ በፊት ከነበራቸው ግንኙነት ውስጥ ኮንዶም ተጠቅመው ሊሆን ይችላል)</p>	<p>አዎን 1 የለም 2 አላውቅም 88 መልስ የለም 99</p>	
402	<p>÷NiM y,gÿbTN i¬ wYM k¥N XNd,Ägbù ÄýÝlù?</p>	<p>አዎን 1 የለም 2 መልስ የለም 99</p>	

403	<p>÷NìM y_gÿbTN ÿ- wYM GLsB Y_qsù?</p> <p>bdNB «YqH IÿÈ%T äKR</p> <p>kt«qs qÛ_R 1 µLt«qs qÛ_R 2N xKbB</p>	<table border="0"> <tr><td>1-ሱቅ</td><td>1</td><td>2</td></tr> <tr><td>2-ፋርማሲ</td><td>1</td><td>2</td></tr> <tr><td>3-ገበያ ቦታ</td><td>1</td><td>2</td></tr> <tr><td>4-የግልክሊኒክ</td><td>1</td><td>2</td></tr> <tr><td>5-ጤና ጣቢያ/ሆስፒታል</td><td>1</td><td>2</td></tr> <tr><td>6-የጤና ባለሙያ</td><td>1</td><td>2</td></tr> <tr><td>7- የቤተሰብ ምጣኔ አገልግሎት</td><td>1</td><td>2</td></tr> <tr><td>8-ቡና/ቤት/ሆቴል/ የእንግዳ መቀበያ</td><td>1</td><td>2</td></tr> <tr><td>9-ከምክር ሰጪዎች</td><td>1</td><td>2</td></tr> <tr><td>10-ከት/ቤት</td><td>1</td><td>2</td></tr> <tr><td>11-ሊደኛ</td><td>1</td><td>2</td></tr> <tr><td>12-ከቤተሰብ</td><td>1</td><td>2</td></tr> <tr><td>13-ከሸቀጣ ሸቀጥ አዟሪዎች</td><td>1</td><td>2</td></tr> <tr><td>14 ከዲ ኬ ቲ</td><td>1</td><td>2</td></tr> <tr><td>15-በገንዘብ ክፍያ የግ/ስ የሚፈጸሙ ሴቶች</td><td>1</td><td>2</td></tr> <tr><td>16-ሌላ ይገለጹ</td><td>1</td><td>2</td></tr> <tr><td>99-መልስ የለም</td><td>1</td><td>2</td></tr> </table>	1-ሱቅ	1	2	2-ፋርማሲ	1	2	3-ገበያ ቦታ	1	2	4-የግልክሊኒክ	1	2	5-ጤና ጣቢያ/ሆስፒታል	1	2	6-የጤና ባለሙያ	1	2	7- የቤተሰብ ምጣኔ አገልግሎት	1	2	8-ቡና/ቤት/ሆቴል/ የእንግዳ መቀበያ	1	2	9-ከምክር ሰጪዎች	1	2	10-ከት/ቤት	1	2	11-ሊደኛ	1	2	12-ከቤተሰብ	1	2	13-ከሸቀጣ ሸቀጥ አዟሪዎች	1	2	14 ከዲ ኬ ቲ	1	2	15-በገንዘብ ክፍያ የግ/ስ የሚፈጸሙ ሴቶች	1	2	16-ሌላ ይገለጹ	1	2	99-መልስ የለም	1	2	
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404	<p>ÆlùT 12 w%T bgNzB KFÃ yGBr SU GNBùnT</p> <p>k_fIÑT wYM µ\$gÆ*TÁ xB%ãT k¥TñR s«T UR</p> <p>yGBr SU GNBùnT Ãl ÷NìM flmêL?</p>	<table border="0"> <tr><td>አዎን</td><td>1</td></tr> <tr><td>የለም</td><td>2</td></tr> <tr><td>አላውቅም</td><td>8</td></tr> <tr><td>መልስ የለም</td><td>9</td></tr> </table>	አዎን	1	የለም	2	አላውቅም	8	መልስ የለም	9																																												
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501	<p>ክትባት ምንድነው ብለው ያስባሉ?</p> <p>ሀ. ከበሽታ የሚከላከል፤</p> <p>ለ. በሽታን የሚያድን፤</p>	<table border="0"> <tr><td>አዎን</td><td>1</td></tr> <tr><td>የለም</td><td>2</td></tr> <tr><td>አላውቅም</td><td>88</td></tr> <tr><td>መልስ የለም</td><td>99</td></tr> <tr><td colspan="2"> </td></tr> <tr><td>አዎን</td><td>1</td></tr> <tr><td>የለም</td><td>2</td></tr> <tr><td>አላውቅም</td><td>88</td></tr> <tr><td>መልስ የለም</td><td>99</td></tr> </table>	አዎን	1	የለም	2	አላውቅም	88	መልስ የለም	99			አዎን	1	የለም	2	አላውቅም	88	መልስ የለም	99																																		
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502	<p>እባክዎትን የሚከተሉት ዓረፍተ ነገሮች ስለ ክትባት መድሃኒት ትክክለኛ ሃሳቦች መሆናቸውን ይንገሩን% ሀ. ክትባት ለጤና ጠቃሚ ነው ለ. ክትባት በሽታን ያድናል ሐ ክትባት በሽታን ይከላከላል መ. ክትባት የሰውነት የመከላከል አቅምን ያሳለብታል ሠ. የክትባት መድሃኒት ከተወሰደ በኋላ ለጥቂት ቀናት የሚቆይ የሰውነት ክፍል መቆጣትን ሊያመጣ ይችላል ለምሳሌ እንደ ትኩሳት ቁስለትና የማሳከክ ስሜት ረ. የክትባት መድሃኒት አዋቂዎችም ሕፃናትም መውሰድ ይችላሉ</p>	<table border="0"> <thead> <tr> <th>አዎን</th> <th>የለም</th> <th>አላውቅም</th> <th>መ የለም</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>2</td> <td>8</td> <td>9</td> </tr> <tr> <td>1</td> <td>2</td> <td>8</td> <td>9</td> </tr> <tr> <td>1</td> <td>2</td> <td>8</td> <td>9</td> </tr> <tr> <td>1</td> <td>2</td> <td>8</td> <td>9</td> </tr> <tr> <td>1</td> <td>2</td> <td>8</td> <td>9</td> </tr> <tr> <td>1</td> <td>2</td> <td>8</td> <td>9</td> </tr> </tbody> </table>	አዎን	የለም	አላውቅም	መ የለም	1	2	8	9	1	2	8	9	1	2	8	9	1	2	8	9	1	2	8	9	1	2	8	9	
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509	የሚወጉት የክትባት መርፌ አልፎ አልፎ የሰውነት መቆጣት(ማሳከክ ግንኙነት) ማስታወክ ወዘተ) ሊያስከትል ይችላል##የተወጉት መርፌ ይረዳ ሁኔታ ቢያመጣብዎትም በጥናቱ ለመካፈል ፈቃደኛ ነዎት?	<table border="0"> <tbody> <tr> <td></td> <td>አዎን</td> <td>1</td> </tr> <tr> <td></td> <td>የለም</td> <td>2</td> </tr> <tr> <td></td> <td>አላውቅም</td> <td>88</td> </tr> <tr> <td></td> <td>መልስ የለም</td> <td>99</td> </tr> </tbody> </table>		አዎን	1		የለም	2		አላውቅም	88		መልስ የለም	99																	
	አዎን	1																													
	የለም	2																													
	አላውቅም	88																													
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510	በኤድስ ክትባት ጥናት ላይ ለመካፈል ፈቃደኛ ከሆኑ ከመጥፎ ሁኔታዎችና ኤድስን ሊያስይዙ ከሚችሉ ድርጊቶች መቆጠብ ቢኖርብዎትም ፈቃደኛ ነዎት?	<table border="0"> <tbody> <tr> <td></td> <td>አዎን</td> <td>1</td> </tr> <tr> <td></td> <td>የለም</td> <td>2</td> </tr> <tr> <td></td> <td>አላውቅም</td> <td>88</td> </tr> <tr> <td></td> <td>መልስ የለም</td> <td>99</td> </tr> </tbody> </table>		አዎን	1		የለም	2		አላውቅም	88		መልስ የለም	99																	
	አዎን	1																													
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	አላውቅም	88																													
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511	በኤድስ ክትባት ጥናት ላይ ተሳታፊ ቢሆኑ ሰዎች ኤድስ እንዳለብዎት አድርገው የሚያስቡ ይመስሉታል?	<table border="0"> <tbody> <tr> <td></td> <td>አዎን</td> <td>1</td> </tr> <tr> <td></td> <td>የለም</td> <td>2</td> </tr> <tr> <td></td> <td>አላውቅም</td> <td>88</td> </tr> <tr> <td></td> <td>መልስ የለም</td> <td>99</td> </tr> </tbody> </table>		አዎን	1		የለም	2		አላውቅም	88		መልስ የለም	99																	
	አዎን	1																													
	የለም	2																													
	አላውቅም	88																													
	መልስ የለም	99																													

ተ.ቁ	መጠይቅ	መልስ	ይለፍ
601	ለማጣራት%305ን ተመልከት። ባለፈው 12 ወራት ውስጥ ከመደበኛ ላይኛ UR yGBr SU GNßùnT nbrãT? አዎን ↓	xLnbrM →	→701
602	በቅርቡ ከመደበኛ የግብረ ስጋ ላይኛዎ ጋር ያደረጉትን የግብረ ስጋ ግንኙነት ያስቡ ከእኛህ ሴት ጋር ባለፉት 30 ቀናት ስንት ጊዜ ግንኙነት ፈጸሙ?	ጊዜ በቁጥር[—/—] አላዉቅም 88 መልስ የለም 99	
603	በመጨረሻ ጊዜ ከመደበኛ የግብረ ስጋ ላይኛ ጋር ግንኙነት ሲፈፀሙ ከንደም ተጠቅመዋል? መደበኛ የግብረ ስጋ ንደኛ ማለት ባለቤትዎን ወይም አብረው የኖሩትን የግብረ ስጋ ግንኙነት ላይኛ ማለት ነው (የግብረ ስጋ ግንኙነት ትርጉምን ተመልከት)	አዎን 1 የለም 2 አላዉቅም 88 መልስ የለም 99	→605
604	ከንደም ለመጠቀም ሀሳቡን ያመጣዉ ማን ነዉ? (አንድ መልስ ላይ ብቻ አክብብ)	እኔ 1 እርሷ 2 ሁለታችንም 3 አላዉቅም 88 መልስ የለም 99	
605	ከንደም ካልተጠቀማችሁ ምክንያቱ ምንድ ነዉ? ከተጠቀስ ቁጥር 1 ካልተጠቀስ ቁጥር 2ን አክብብ።	አዎን የለም 1. ስለማይገኝ/ስላልነበረ 1 2 2. ዉድ ስለሆነ 1 2 3. እንጠቀም ማለት-ስላሳፈረኝ/ስላልደፈርኩ 1 2 4. ላይኛዬ ስለተቃወመች 1 2 5. በችኮላ/ስለተጣደፍን እረስተን 1 2 6. ለመግዛት/ለመጠየቅ ስላፈርኩ 1 2 7. ሌላ የወሊድ መቆጣጠሪያ ስለተጠቀምን 1 2 8. አስፈላጊ መስሎ ስላልታየኝ 1 2 9. አላሰብኩበትም ነበር 1 2 10. አለርጂ/ማሳከክ ስለሚያመጣብኝ 1 2 11. ስለማልወድ 1 2 12. ላይኛዬን ስለማምናት 1 2 13. አልኮል ጠጥቼ ስለነበር 1 2 14. ከንደም ኤች አይ ቪ ያስተላልፋል ብዬ ስለማምን 1 2 15. ከንደም አጠቃቀም ስለማላቅ 1 2 16. ከንደም በየጊዜ እየተቀደደ ስላስቸገረኝ 1 2 17. እርካታ ስለሚቀንስብን 1 2 18. ልጅ መዉለድ ስለፈለግን 1 2 19. ሌላ ይገለፅ 1 2 88. አላዉቅም 1 2 99. መልስ የለም 1 2	

ተ.ቁ	መጠይቅ	መልስ	ይለፍ
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905	<p>ኮንዶም ካልተጠቀማችሁ ምክንያቱ ምንድን ነው?</p> <p>ሁሉም ጥያቄ ከተመለሰ መልሱን አክብብ</p>	<p>አዎን የለም</p> <ol style="list-style-type: none"> 1. ስለማይገኝ/ስላልነበረ 1 2 2. ዉድ ስለሆነ 1 2 3. እንጠቀም ማለት ስላልፈረኝ/ስላልደፈርኩ 1 2 4. ለደኛዬ ስለተቃወመች 1 2 5. በችኮላ/ስለተጣደፍን እረስተን 1 2 6. ለመግዛት/ለመጠየቅ ስላልፈርኩ 1 2 7. ሌላ የወሊድ መቆጣጠሪያ ስለተጠቀምን 1 2 8. አስፈላጊ መስሎ ስላልታየኝ 1 2 9. አላሰብኩበትም ነበር 1 2 10. አለርጂ/ማሳክክ ስለሚያመጣብኝ 1 2 11. ስለማልወድ 1 2 12. ለደኛዬን ስለማምናት 1 2 13. አልኮል ጠጥኜ ስለነበር 1 2 14. ኮንዶም ኤች አይ ቪ ያስተላልፋል ብዬ ስለማምን 1 2 15. ኮንዶም አጠቃቀም ስለማላቅ 1 2 16. ኮንዶም በየጊዜ እየተቀደደ ስላስቸገረኝ 1 2 17. እርካታ ስለሚቀንስብን 1 2 18. ልጅ መወለድ ስለፈለግን 1 2 19. ሌላ ይገለፅ 1 2 88. አላወቅም 1 2 99. መልስ የለም 1 2 	
906	<p>ባለፉት 12 ወራት ዉስጥ በዚህ ግንኙነት ዉስጥ ኮንዶም አጠቃቀም እንዴት ነበር?</p>	<p>ሁል ጊዜ 1</p> <p>አብዛኛውን ጊዜ 2</p> <p>አንዳንድ ጊዜ 3</p> <p>ምንም ጊዜ አልተጠቀምንም (በጭራሽ) 4</p> <p>አላወቅም 88</p> <p>መልስ የለኝም 99</p>	
907	<p>እስካሁን ስለ ሴት ለደኛችሁ ስንወያይ ቆይተናል</p> <ul style="list-style-type: none"> • የወንድ የግብረ ስጋ ግንኙነት ለደኛ ኖሮዎት ያዉቃል? • ባለፉት 12 ወራት ከወንድ ለደኛዎት ጋር የግብረ ስጋ ግንኙነት ፈፀመዋል? (የግብረ ስጋ ግንኙነት ስንል በፊንጡጣ የሚፈፀመውን ነው)። • ባለፉት 12 ወራት ከስንት የወንድ ለደኛዎት ጋር በፊንጡጣ የግብረ ስጋ ግንኙነት ፈፀመዋል? 	<p>አዎን 1</p> <p>የለም 2</p> <p>መልስ የለም 99</p> <p>አዎን 1</p> <p>የለም 2</p> <p>መልስ የለም 99</p> <p>የወንድ ለደኛ ብዛት [—/—]</p> <p>አላወቅም 88</p> <p>መልስ የለም 99</p>	
KFL 10 ##bGBrsU GNβùnT Sl,t§lù yx.ÆlzR b>-āC btmlkt			
ተ.ቁ	መጠይቅ	መልስ	ይለፍ
1001	በግብረ ስጋ የሚተላለፉ በሽታዎች መኖራቸውን ስምተዉ ያዉቃሉ?	<p>አዎን 1</p> <p>የለም 2</p> <p>መልስ የለም 99</p>	

1002	<p>በግብረ ስጋ ግንኙነት የሚተላለፉ የአባላዘር በሽታዎች በሴቶች ላይ የሚያሳዩትን ምልክቶች ይጥቀሱ?</p> <p>ZRZ,,N x~NBB%</p> <p>ከተጠቀሰ ቁጥር 1 ካልተጠቀሰ ቁጥር 2ን ክብብ</p>	<p>ከእምብርት በታች የሆድ ህመም 1 2</p> <p>የብልት ፈሳሽ 1 2</p> <p>መጥፎ ሽታ ያለው የብልት ፈሳሽ 1 2</p> <p>ሽንት ሲሸኙ የማቃጠል ስሜት 1 2</p> <p>የብልት ቁስል/መላጥ 1 2</p> <p>የብሽሽት እብጠት 1 2</p> <p>የብልት ማሳከክ 1 2</p> <p>ሌላ ይገለጹ——</p> <p>መልስ የለም 99</p>	<p>አዎን የለም</p>	
1003	<p>በግብረ ስጋ ግንኙነት የሚተላለፉ የአባላዘር በሽታዎች በወንዶች ላይ የሚያሳዩትን ምልክቶች ይጥቀሱ?</p> <p>ZRZ,,N x~NBB%</p> <p>ከተጠቀሰ ቁጥር 1 ካልተጠቀሰ ቁጥር 2ን ክብብ</p>	<p>የብልት ፈሳሽ 1 2</p> <p>ሽንት ሲሸኙ የማቃጠል ስሜት 1 2</p> <p>የብልት ቁስል/መላጥ 1 2</p> <p>የብሽሽት እብጠት 1 2</p> <p>ሌላ ይገለጹ——</p> <p>መልስ የለም 99</p>	<p>አዎን የለም</p>	

KFL 11##SI x3DS b>~ XyqT/xStÄyT XÄ xmlukTN btmlkt

ተ.ቁ	መጠይቅ	መልስ	ይለፍ
1101	<p>ኤድስ የተባለ በሽታ ወይም ኤች አይቪ እንዳለ ሠምተዋል?</p>	<p>አዎን 1</p> <p>አልሰማሁም 2</p> <p>መልስ የለም 99</p>	→1201
1102	<p>ሠዎች በግብረ ስጋ ግንኙነት ወቅት ኮንዶም ሁል ጊዜና በአግባቡ በመጠቀም ራሳቸውን ከኤድስ አምጪው ሕዋስ መከላከል ይችላሉ?</p>	<p>አዎን 1</p> <p>አዎን ሆኖም 100% በታች 2</p> <p>አይችሉም 3</p> <p>አላውቅም 88</p> <p>መልስ የለም 99</p>	
1103	<p>ሠዎች በወባ ትንኝ ንክሻ ኤች አይቪ ሊይዛቸው ይችላሉ?</p>	<p>አዎን 1</p> <p>አይችልም 2</p> <p>አላውቅም 88</p> <p>መልስ የለም 99</p>	
1104	<p>ሠዎች በኤድስ ቫይረስ ከተያዘ ሰው ጋር ምግብ ቢመገቡ በሽታው ሊይዛቸው ይችላሉ?</p>	<p>አዎን 1</p> <p>አይችልም 2</p> <p>አላውቅም 88</p> <p>መልስ የለም 99</p>	
1105	<p>ሌላ ሰው በተወጋበት መርፌ በመጠቀም አንድ ሰው በቫይረሱ ይያዛል?</p>	<p>አዎን 1</p> <p>አይያዝም 2</p> <p>አላውቅም 88</p> <p>መልስ የለም 99</p>	
1106	<p>ሠዎች በአንድ ታማኝና ጤነኛ የግብረ ስጋ ግንኙነት ላይኛ በመወሰን ራሳቸውን ከኤች አይቪ መከላከል ይችላሉ?</p>	<p>አዎን 1</p> <p>አይችሉም 2</p> <p>አላውቅም 88</p> <p>መልስ የለም 99</p>	
1107	<p>ሰዎች ከግብረ ስጋ ግንኙነት ተአቅቦ በማድረግ በኤች አይቪ ከመያዝ ይከላከላሉ? (ሌሎች ሕዋሱን ሊያስተላልፉ የሚችሉ ሁኔታዎች በደም መስጠት ስለት ባለው መሳሪያ ከሌሎች ጋር መጠቀምን ሳይጨምር)</p>	<p>አዎን 1</p> <p>አይከላከሉም 2</p> <p>አላውቅም 88</p> <p>መልስ የለም 99</p>	

በኤች አይቪ የተያዙ ሰዎችን መለየትና / ማግለልን በተመለከተ

1108	<p>ዘመድዎ በኤድስ አምጪው ቫይረስ ቢታመም በቤት ወስጥ ሊንከባከቡት ይፈቅዳሉ?</p>	<p>አዎን 1</p> <p>አልፈቅድም 2</p> <p>አላውቅም 88</p> <p>መልስ የለም 99</p>	
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1109	በኤች አይቪ የተያዘ ነገር ግን ያልታመመ አንድ የሥራ ባልደረባዎት ስራዎን/ስራውን እንድትቀጥል/እንዲቀጥል መፈቀድ አለበት?	አዎን የለም አላወቅም መልስ የለም	1 2 88 99
ለአደጋዉ የመጋለጥ ግላዊ እሳቤ			
1110	በኤች አይቪ የመያዝ እድልዎ ምን ያህል ነው ይላሉ? (ምርጫውን አንብብ)	የመያዝ ዕድሉ የለም ዝቅተኛ መካከለኛ ከፍተኛ አላወቅም መልስ የለም	1 2 3 4 88 99
1111	መልስዎ የመያዝ እድልዎ/አጋጣሚ የለም ወይም ዝቅተኛ ከሆነ ለምን? (ተጨማሪ መጠይቅ) ከአንድ በላይ መልስ ይቻላል ከተጠቀሰ ቁጥር 1 ካልተጠቀሰ ቁጥር 2ን አክብብ::	1-የግብረ ስጋ ግንኙነት ፈጽሜ አላወቅም 2-ከግብረ ስጋ ግንኙነት ስለታቀብኩ 3-ለደኛዬን አምናትአለሁ 4-ሌላ ሰዉ በተወጋበት መርፌ ተወግኜ አላወቅም 5-ሁል ጊዜ ኮንዶም ስለምጠቀም 6-ጤነኛ ስለሆንኩና በኤች አይቪ ከተያዘ ሰዉ ጋር ግንኙነት ስለሌለኝ 7-ሌላ 88-አላወቅም 99-መልስየለም	አዎን የለም 1 2 1 2 1 2 1 2 1 2 1 2
1112	መልስዎ የመያዝ እድልዎ/አጋጣሚ መካከለኛ ወይም ከፍተኛ ነዉ የሚል ከሆነ ለምን? (ተጨማሪ መጠይቅ) ከአንድ በላይ መልስ ይቻላል ከተጠቀሰ ቁጥር 1 ካልተጠቀሰ ቁጥር 2ን አክብብ::	1-በኤች አይ ቪ ከተያዘች ሴት ለደኛዬ ጋር የግብረ ስጋ ግንኙነት ስለአደረኩ 2-ያለ ኮንዶም የግብረ ስጋ ግንኙነት ስለፈጸምኩ 3-ከአንድ በላይ የግብረ ስጋ ግንኙነት ስላለኝ 4-በገንዘብ ክፍያ የግብረ ስጋ ግንኙነት ከምትፈፀም ሴት ጋር ግንኙነት ስለፈፀምኩ 5-ኮንዶም ስለተበሳ/ ስለተቀደደ 6-ሌላ 88-አላወቅም 99-መልስ የለም	አዎ የለም 1 2 1 2 1 2 1 2 1 2 1 2
ስለ ኤድስ በሽታ እዉቀት/አስተያየት እና አመለካከትን በተመለከተ			
1113	እርጉዝ የሆነች ሴት የኤች አይ ቪን ህዋስ ወደ ፅንሱ ልታስተላልፍ ትችላለች?	አዎን አትችልም አላወቅም መልስ የለም	1 2 88 99
1114	በቫይረሱ የተያዘች ሴት ጡት በማጥባት ወደተወለደዉ ህፃን ህዋሱን ማስተላለፍ ትችላለች?	አዎን አትችልም አላወቅም መልስ የለም	1 2 88 99

KFL 12''' ytlÄ† yxDS mk\$skÄ TMHRèC GN²bα

ተ.ቁ	መጠይቅ	መልስ	ይለፍ
	ለማጣራት፡ ጥያቄ 1001ን ተመልከት። አዎን ካሉ ወደ ጥያቄ 1104 ሂድ መልሱ የለም ከሆነ ጥያቄውን እዚህ ጋር አብቃ።		
1201	ባለፉት 12 ወራት ዉስጥ ስለ ኤች አይቪ/ ኤድስ በሬዲዎ የሚተላለፍ መልእክት ስምተዉ ያዉቃሉ?	አዎን የለም መልስ የለም	1 2 99
1202	ባለፉት 12 ወራት ዉስጥ ስለ ኤች አይቪ/ ኤድስ በቴሌቪዥን የሚተላለፍ መልእክቶች አይተዋል?	አዎን የለም መልስ የለም	1 2 99
1203	ባለፉት 12 ወራት ዉስጥ ስለ ኤች አይ ቪ ኤድስ የተላለፉ ፅሁፎችን (በጋዜጣ፣በመጽሔት) አግኝተዉ አንብበዋል?	አዎን የለም አላዉቅም መልስ የለም	1 2 88 99
	መንከባከብና መደገፍ		
1204	በኤድስ በሽታ ለረጅም ጊዜ የታመመ የቤተሰብ አባል ቢኖርዎ ቁስሎቼን፣ደሙን፣መግሉን፣ተቅማጡን፣ ትዉክቱን ፣ የመሳሰሉትን በሚያጸዱበት ወቅት ምን አይነት ጥንቃቄ ያደርጋሉ? (ከአንድ በላይ መልስ ሊሰጥ ይችላል) ከተጠቀሰ ቁጥር 1 ካልተጠቀሰ ቁጥር 2ን አክብብ።	1-ምንም የተለየ ጥንቃቄ አላደርግም 2-ካፀዳሁለት በጠላ እጆቼን እታጠባለሁ 3-የጥላስቲክ ለንት እጠቀማለሁ 4-1።§ sy XNÄprÄÿ X<YÝlhù 5-ሌላ—— 88-አላዉቅም 99-መልስ የለም	አዎን የለም 1 2 1 2 1 2 1 2 1 2 1 2 1 2
1205	በፈቃደኝነት የሚደረግ የኤች አይ ቪ ምርመራና የምክር አገለግሎት ቢኖር ተጠቃሚ ለመሆን ፍላጎት አለዎት ወይ?	አዎን የለም አላዉቅም መልስ የለም	1 2 88 99

ይህ የመጠይቁ ማጠቃለያ ነዉ። ጊዜዎን መስዋእት አድርገዉ ስለመለሱልኝ አመሰግናለሁ። ላደረጉልኝ ትብብር ሳላደንቆት አላልፍም።